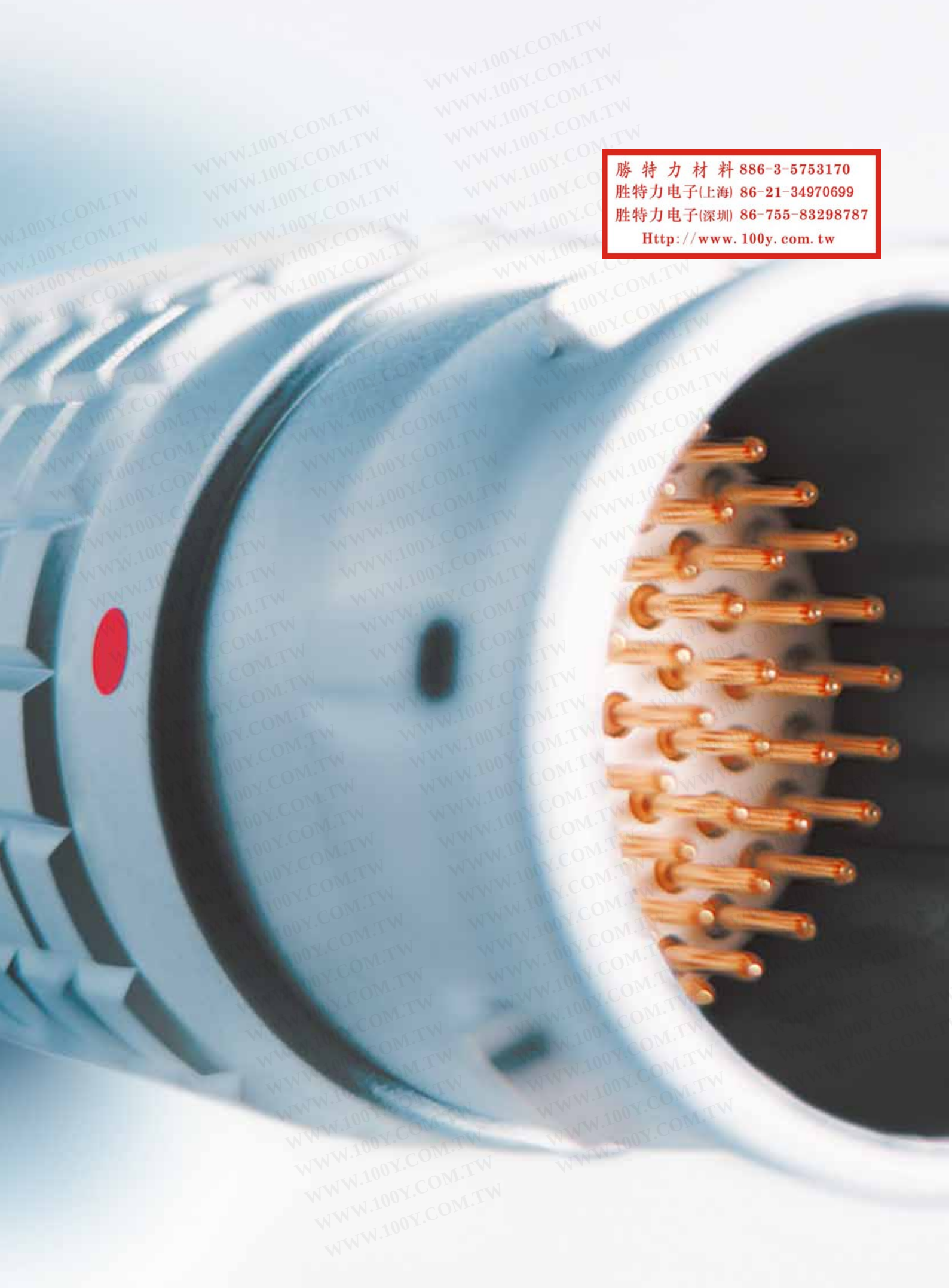


单芯、多芯连接器

勝特力材料 886-3-5753170
勝特力电子(上海) 86-21-34970699
勝特力电子(深圳) 86-755-83298787
[Http://www.100y.com.tw](http://www.100y.com.tw)

勝特力材料 886-3-5753170
勝特力电子(上海) 86-21-34970699
勝特力电子(深圳) 86-755-83298787
[Http://www.100y.com.tw](http://www.100y.com.tw)



雷莫 (LEMO) 单芯和多芯连接器

该手册详细介绍了雷莫 (LEMO) 单芯和多芯连接器。雷莫 (LEMO) 现已将产品扩展到 7 大类 40 多个系列，拥有各自的锁定特性，适用于不同的使用环境。每一个系列都包含各种型号的插头、插座、双通及桥式插头，其针芯配置能适配各种圆形电缆，最高芯数可达 106 芯，外径尺寸可高达 30 mm。同时，还有水密和真空密封型号可供选择。雷莫 (LEMO) 连接器完美的屏蔽设计效果，确保极低的接触电阻和很好的外壳电连续性，特别适用于对电磁兼容性 (EMC) 要求很高的使用场合。

勝特力材料 886-3-5753170
勝特力电子(上海) 86-21-34970699
勝特力电子(深圳) 86-755-83298787
[Http://www.100y.com.tw](http://www.100y.com.tw)

目录

连接器选型的三个步骤.....	3
B 系列 (室内, 定位销定位)	
产品编号规则	11
金属外壳型号	12
弯角式插座型号	22
塑料外壳型号	24
水密及真空密封型号	26
桥式连接器型号	29
螺纹锁定连接器型号	30
规则定位销及非规则定位销方式	31
K 系列 (室外, 定位销定位)	
产品编号规则	33
金属外壳型号	34
水密及真空密封型号	41
规则定位销及非规则定位销方式	43
B 和 K 系列	
针芯配置, 外壳, 绝缘体, 针芯	45
S 系列 (室内, 阶梯状插芯)	
产品编号规则	57
金属外壳型号	58
弯角式插座型号	68
塑料外壳型号	70
E 系列 (室外, 阶梯状插芯)	
产品编号规则	75
金属外壳型号	76
水密及真空密封型号	82
L 系列 (室外, 定位销定位, 阶梯状插芯)	
产品编号规则	85
金属外壳型号	86
真空密封型号	89
规则定位销及非规则定位销方式	90
S, E 和 L 系列	
针芯配置, 外壳, 绝缘体, 针芯	91
2G 系列 (室内, 定位销定位).....	110
2C 系列 (室内, 阶梯状插芯).....	116
1D 系列 (室内, 四同轴针芯).....	124
配件.....	130
附件.....	136
工具.....	146
面板开口尺寸.....	152
PCB 板钻孔参数.....	154
线缆集成 (B, K, S 和 E 系列).....	161
技术特性.....	171

精密的模块化连接器，适用于各种应用场合

自1946年在瑞士成立以来，雷莫 (LEMO) 公司已成为全球公认的圆形插拔自锁连接器及其解决方案的领导者。今天，雷莫 (LEMO) 及其附属公司瑞泰 (REDEL) 和科沃 (COELVER) 已经拥有超过40个子公司和经销商，业务遍及80多个国家。

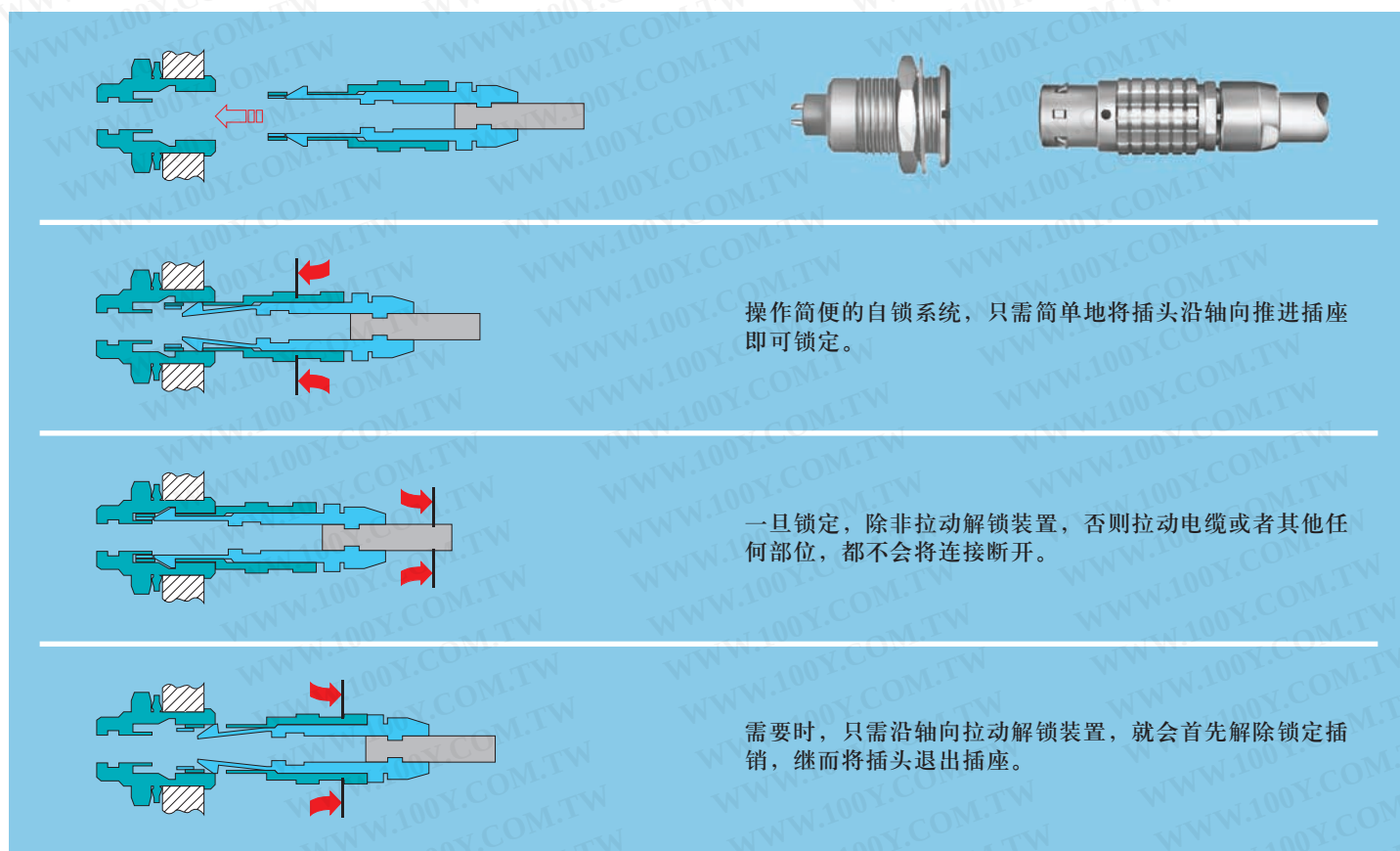
超过 60,000 种连接器

雷莫 (LEMO) 产品的模块化设计使其能提供超过60,000种连接器，有多种尺寸可供选择，小到直径3mm，大到直径50mm，适用的最大电缆外径可达30mm，芯数可多达106芯。

这样广泛的产品范围，能够满足大多数行业（如医疗仪器、试验检测设备、机器、音视频广播、电讯和军工等）的任何一种特殊应用要求，同时，您可以根据需要选择到最理想的连接器配置。

雷莫 (LEMO) 插拔自锁连接系统

插拔自锁系统因简单快捷的插拔闻名于世。能有效抗振动、抗冲击，并且能防止因拉动电缆而导致的断连情况发生，使用起来绝对安全可靠，方便在非常有限的空间里插拔。



UL 认证

雷莫 (LEMO) 连接器通过了美国保险商试验所 (UL) 认证。这使您的整个系统 (包括您的设备、电缆及雷莫连接器) 能更加容易地通过认证。

CE 标记

雷莫 (LEMO) 连接器的设计和制造遵从欧洲安全指令中 CE 标记的要求。这使您的整个系统 (包括您的设备、电缆及雷莫连接器) 能更加容易地通过认证。

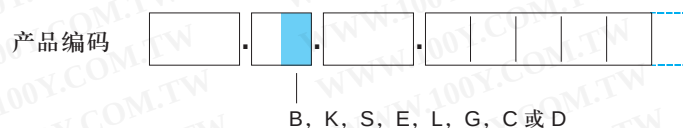
RoHS 指令

雷莫 (LEMO) 连接器符合欧盟议会的RoHS指令 (2002/95/EC)。该指令规定，在欧洲市场销售的电子电气设备，限制使用指令中涉及的有害物质。雷莫 (LEMO) 保证其连接器不含有汞 (Hg)、镉 (Cd)、铅 (Pb)、六价铬 (Cr⁶⁺)、聚溴联苯 (PBB) 或聚溴二苯醚 (PBDE)。

连接器选型的三个步骤

第一步：选择连接器的正确系列

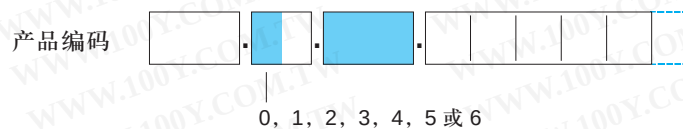
根据环境参数选择相应的雷莫 (LEMO) 连接器系列。环境参数是指能影响您的设备或电缆的参数，例如室内或室外环境、温度环境、连接器和设备的防护要求，见第4页表格。



第二步：选择连接器的正确尺寸

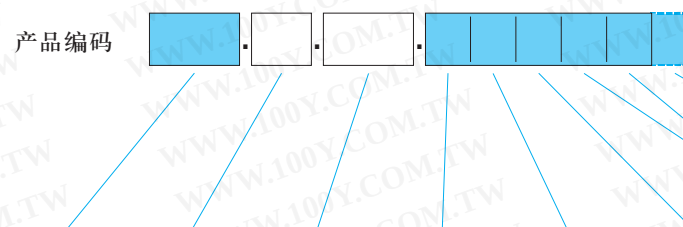
根据电缆芯线的截面积 (mm²) 或线规 (AWG) 选择最合适的针芯直径 (在焊接、压接或印制板接等不同针芯类型的情况下，最合适的针芯直径不同)，见第7页。

根据最合适的针芯直径来确定相应的连接器大小及针芯配置，见第6页。



第三步：确定完整的产品编号

现在，你已经确定了连接器的系列和针芯配置。在下表的帮助下，您就可以完成完整的产品编号了。



	型号	系列	针芯配置	外壳材料	绝缘体材料	针芯	线夹	变量参数
B 系列 (室内, 定位销定位)	12	12	45	50	50	50	52	54
K 系列 (室外, 定位销定位)	34	34	45	50	50	50	53	54
S 系列 (室内, 阶梯状插芯)	58	58	91	99	99	99	102	107
E 系列 (室外, 阶梯状插芯)	76	76	91	99	99	99	105	107
L 系列 (室外, 定位销定位, 阶梯状插芯)	86	86	92	99	99	99	106	107
G 系列 (室内, 定位销定位)	111	111	112	112	110	113	113	113
C 系列 (室内, 阶梯状插芯)	117	117	120	120	116	120	121	121
1D 系列 (室内, 四同轴针芯)	125	125	127	127	124	127	127	128

注：上表中的数字对应本手册的页码。

第一步：选择连接器的正确系列

雷莫 (LEMO) 单芯及多芯连接器

标准定位销定位系列 (B, 00, G)

这些系列连接器的典型特征是都采用了定位销定位，这能提高针芯密度，防止对位错误。不同的定位销选择可以避免相似连接器之间的混插。使用压接针芯还可以减少电缆的组装时间。这类连接器包括 0B-5B、00 多芯和 2G (即缩短型的 2B 系列)，其中一些系列还有真空密封型连接器可供选择。

防水型定位销定位系列 (K, L)

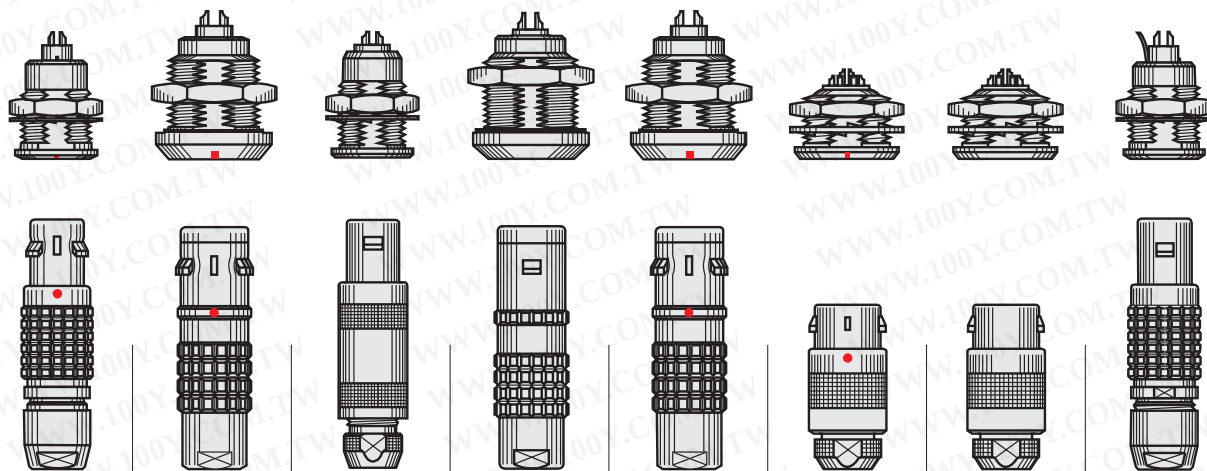
这些系列连接器的特征是当连接器插合并与电缆构成组件时，具有防水功能，其中包括 0K-5K 系列 (针芯配置与 0B-5B 系列相同)，0L-2L 系列 (定位销定位及无极性阶梯状插芯相结合的结构)。

标准系列 (S, 00, C, D)

此系列连接器的典型特征是多芯连接类型采用雌雄同体的绝缘体结构，即插头和插座的绝缘体结构相同。其中主要包括了 0S-6S 系列、00 单芯系列、2C (缩短型) 和 1D 四同轴类型。

防水系列 (E)

此类系列连接器的特征是当连接器插合并与电缆构成组件时，具有防水功能，其中包括 0E-6E 系列 (针芯配置与 S 系列相同)。



系列	00 多芯 B	K	00 单芯 S	E	L	G	C	D
环境	室内	室外或 苛刻环境	室内	室外或苛刻环境		室内		
防护等级 ¹⁾	IP 50	IP 66 - IP 68	IP50	IP 66 - IP 68		IP50		
防护等级 ²⁾	IP50-IP68 真空密封	IP 66 - IP 68 真空密封	IP50-IP68 真空密封	IP 66 - IP 68 真空密封		IP50	IP50-IP68 真空密封	IP50
温度范围	-55 到 250℃	-55 到 200℃	-55 到 250℃	-55 到 200℃		-55 到 250℃		-40 到 120℃
锁定	插拔自锁							
外壳尺寸	7 种 (金属) 4 种 (塑料)	6 种 (金属)	7 种 (金属) 5 种 (塑料)	6 种 (金属)		3 种 (金属)	4 种 (金属)	1 种 (金属)
绝缘体类型	多芯		单芯或 多芯 (雌雄同体)		多芯 (雌雄同体)	多芯	多芯 (雌雄同体)	四同轴
针芯类型	焊接、压接或印制板接		焊接或压接		焊接、压接 或印制板接	焊接或压接		焊接
特点	13 种定位销	9 种定位销	阶梯状插芯		阶梯状插芯	1 种定位销	阶梯状插芯	4 个同轴针芯
页码	9 - 31	32 - 44	55 - 73	74 - 83	84 - 90	109 - 115	116 - 122	123 - 128

注:

1) 已插合的连接器。见第5页的防护等级代码。

2) 您的设备: 防水或真空密封设备的连接器选择, 见第5页。

勝特力材料 886-3-5753170
 勝特力电子(上海) 86-21-34970699
 勝特力电子(深圳) 86-755-83298787
[Http://www.100y.com.tw](http://www.100y.com.tw)

进入保护的定义 (IP 代码)

IEC60529 定义了电气设备为避免外物 (如工具、灰尘、手指) 及潮湿气体进入其外壳的密封保护等级分类。该分类法表示为字母 IP (Ingress Protection) 后面加两个数字。

例如: IP 50 = IP 5 0

IP 字母代码 —
 第 1 个数字 —
 第 2 个数字 —

保护等级——第 1 个数字

IP 代码的第 1 个数字表示避免人体触及运动部件的保护程度, 以及防止固体外物进入设备外壳的保护程度。

代码	第 1 个数字的含义
0	无特殊保护
1	防止身体较大的部位 (比如手) 或防止直径大于 50 mm 的固体物质进入
2	防止直径大于 12 mm 但长度不超过 80 mm 的物体进入
3	防止工具、电线等直径或厚度大于 2.5 mm 的物体进入
4	防止直径或厚度大于 1.0 mm 的固体物质进入
5	防止灰尘积垢影响设备运行
6	完全防尘
7	-
8	-

保护等级——第 2 个数字

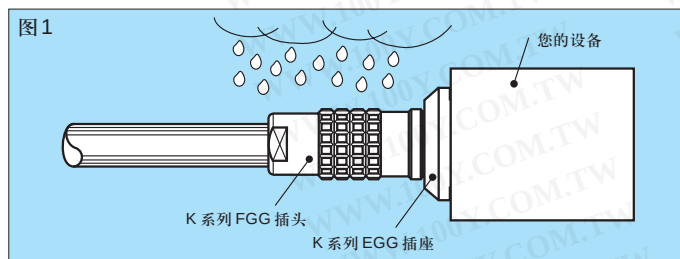
第 2 个数字表示避免水以各种形式进入 (如滴入、喷入、浸入等) 设备外壳的保护程度。

代码	第 2 个数字含义
0	无特殊保护
1	防止水垂直滴入
2	防止水以不超过 15° 倾角滴入
3	防止喷洒的水进入
4	防止水溅入
5	防止喷射的水进入
6	防止猛烈海浪或强力喷水的进入
7	防止临时浸没过程中的水进入
8	防止完全、连续淹没过程中的水进入

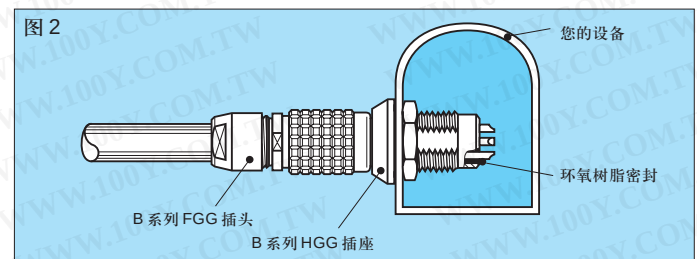
水密或真空密封设备的连接器选择

仅当连接器插合时, B 和 S 系列保护等级为额定值 IP50, K 和 L 系列为额定值 IP66 (或以上)。当连接器未插合时, 如果设备要求水密或真空密封, 那就必须选择水密型或真空密封型的插座。您可以根据下面两种情况进行考虑:

A) 图 1 所示为典型的户外设备。如果在连接器未插合时, 还要求设备达到 IP66 或者更高的防护等级, 那就应该从 B、S、E、K 或 L 系列中选取水密型的插座。



B) 图 2 所示为一置于压差环境 (比如真空或压力气体) 中的设备, 设备及连接部位必须无渗漏。为确保设备的密封性能, 插座必须进行额外的氦渗漏试验 (按 MIL1344A 标准)。

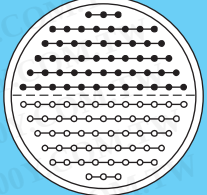


查询温度范围请参阅第 26、41、72、82 和 89 页上的内容。

第二步：选择连接器的正确尺寸

选择连接器的正确尺寸和针芯配置

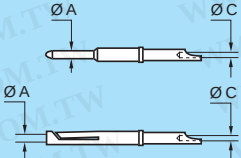
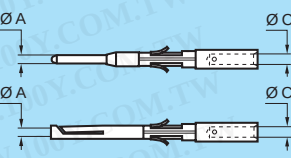
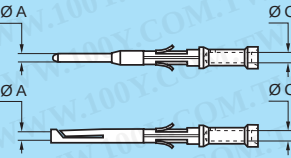
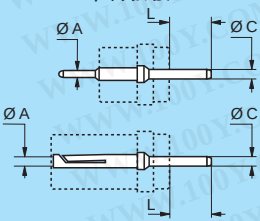
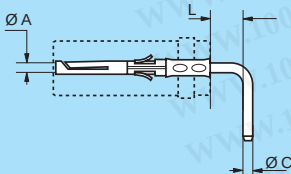
正确选择连接器尺寸(0到6)的关键是确定针芯的直径($\varnothing A$)。
 根据针芯数量和额定工作电流就可以找到满足要求的所有针芯直径($\varnothing A$)。(见第45-48页)
 下表所示为针芯直径($\varnothing A$)或焊接杯口直径($\varnothing C$) (仅1D系列)。

针芯数	针芯配置	系列																	
																			
		00	0B-0K	1B-1K	2B-2K	3B-3K	4B-4K	5B-5K	00	0S-0E-0L ¹⁾	1S-1E-1L ¹⁾	2S-2E-2L ¹⁾	3S-3E	4S-4E	5S-5E	6S-6E	2G	2C	1D ($\varnothing C$)
单芯	1 113								1.3										
	1 116								1.6										
	1 120										2.0								
	1 130										3.0	3.0							
	1 140											4.0	4.0	4.0					
	1 160												6.0	6.0					
	1 112														12.0				
多芯	2 302	0.5	0.9	1.3	2.0	3.0		6.0		0.9	1.3	1.6	2.0	4.0	6.0			1.6	
	3 303	0.5	0.9	1.3	1.6	2.0				0.7	0.9	1.3	2.0	3.0	6.0/4.0	6.0		1.3	
	4 304	0.5	0.7	0.9	1.3	2.0	3.0	4.0		0.7	0.9	1.3	2.0	3.0	4.0	8.0		1.3	0.6
	5 305		0.7	0.9	1.3	1.6					0.9/0.7	1.3	2.0/1.3	3.0/2.0	4.0/3.0				
	6 306		0.5	0.7	1.3	1.6	2.0				0.7	1.3	1.3	2.0	3.0			1.3	
	7 307		0.5	0.7	1.3	1.6	2.0					1.3/0.9	1.3	2.0/1.3					
	8 308			0.7	0.9	1.3						0.9	1.3	1.3	3.0			0.7	
	9 309		0.5			1.3/2.0								1.3					
	10 310			0.5	0.9	1.3	1.6	3.0				0.9	1.3	1.3	2.0			0.7	
	12 312				0.7	0.9	1.3						0.9	1.3	2.0	4.0/5.0		0.7	
	13 313												0.9	1.3					
	14 314			0.5	0.7	0.9		2.0					0.9	1.3	3.0/2.0			0.7	
	16 316			0.5	0.7	0.9	0.9	2.0					0.9	0.9	2.0	3.0			
	18 318				0.7	0.9							0.9	0.9	3.0/1.6	4.0	0.7		
	19 319				0.7														
	20 320					0.7	0.9	1.6						0.9	1.6	3.0			
	22 322					0.7								0.9	3.0/1.6				
	24 324					0.7	0.9							0.9	1.6	3.0			
	26 326				0.5	0.7													
	30 330					0.7	0.9	1.3							1.3	2.0			
	32 332				0.5											2.0			
	36 336														1.3	2.0 ²⁾			
	40 340						0.7	1.3							1.3	2.0			
	44 344														1.3				
	48 348						0.7	1.3							1.3	2.0			
	50 350							0.9											
	54 354							0.9											
	60 360															1.6			
	62 362															1.6			
	64 364							0.9								1.3			
	72 372															1.3			
	106 106															0.9			

注：¹⁾ L 系列没有单芯型 ²⁾ 2.0 仅对应 6S 系列，6E 系列是 1.3 和 5.0

核对与电缆芯线的匹配性

核对所选择的雷莫 (LEMO) 连接器针芯直径 ($\varnothing A$) 是否与您的电缆芯线直径 (线规号或最大截面积) 相适应。

针芯类型	针芯			芯线（内导体）						F _r ¹⁾ (N)	注	
	Ø A (mm)	Ø C (mm)	图示	实心芯线		绞织芯线						
				AWG 最大值	截面积 最大值 (mm ²)	AWG		截面积 (mm ²)				
						最小值	最大值	最小值	最大值			
焊接		0.5 ²⁾	0.40 ²⁾	-	28	0.09	-	30	-	0.05	-	●
		0.5	0.45	-	28	0.09	-	28	-	0.09	-	
		0.7 ³⁾	0.60 ³⁾	-	24	0.25	-	26	-	0.14	-	
		0.7	0.80	-	22	0.34	-	22 ⁴⁾	-	0.34	-	
		0.9	0.80	-	22	0.34	-	22 ⁴⁾	-	0.34	-	
		1.3	1.00	-	20	0.50	-	20 ⁴⁾	-	0.50	-	
		1.6	1.40	-	16	1.00	-	18	-	1.00	-	
		2.0	1.80	-	14	1.50	-	16	-	1.50	-	
		3.0	2.70	-	10	4.00	-	12	-	4.00	-	
		4.0	3.70	-	10	6.00	-	10	-	6.00	-	
		5.0	5.20	-	-	-	-	8	-	10.00	-	
		6.0	5.20	-	-	-	-	8	-	10.00	-	
		8.0	7.00	-	-	-	-	4	-	16.00	-	
		12.0	11.50	-	-	-	-	0	-	50.00	-	
压接	 	0.5 ⁵⁾	0.45	1	-	-	32	28	0.035	0.09	12	●
		0.7	0.80	1	-	-	26	22 ⁴⁾	0.140	0.34	22	●
			0.45	2	-	-	32	28	0.035	0.09		○
		0.9	1.10	1	-	-	24	20	0.250	0.50	30	●
			0.80	2	-	-	26	22 ⁴⁾	0.140	0.34		○
			0.45	2	-	-	32	28	0.035	0.09		○
		1.3	1.40	1	-	-	20	18	0.500	1.00	40	●
			1.10	2	-	-	24	20	0.250	0.50		○
			0.80	2	-	-	26	22 ⁴⁾	0.140	0.34		○
		1.6	1.90	1	-	-	18	14 ⁴⁾	1.000	1.50	50	●
			1.40	2	-	-	22	18	0.340	1.00		○
		2.0	2.40	1	-	-	16	12 ⁴⁾	1.500	2.50	65	●
			1.90	2	-	-	18	14	1.000	1.50		○
		3.0	2.90	1	-	-	14	10 ⁴⁾	2.500	4.00	75	●
4.0	4.00	1	-	-	12	10	4.000	6.00	90	●		
印制板接		尺寸 L 和 C 详见第 156 和 159 页 PCB (印制板) 钻孔参数部分									●	
弯角式印制板接		尺寸 L 和 C 详见第 157 和 160 页 PCB (印制板) 钻孔参数部分									●	

注:

- 针芯在绝缘体内的保持力 (依据标准 IEC60512-8 试验方法 15 a)
- 适于 00 多芯系列
- 适于 S、E、2C、2G 和 1D 系列
- 虽然已知线规号, 但一些绞合芯线的直径在设计时是大于焊接杯口的直径的。所以, 必须确定芯线的最大直径小于尺寸 $\varnothing C$ 。
- 00 多芯系列或 0B 和 1B 系列, 公针芯

核对与电缆的匹配性

核对您选择的连接器尺寸是否与您的电缆外径相适应。

系列	电缆外径范围 (mm)			
	线夹		配护套的线夹	
	最小值	最大值	最小值	最大值
00 ¹⁾	1.1	3.4	1.1	3.4
0B	1.5	5.5	1.5	5.0
1B	2.2	7.5	2.2	7.0
2B	1.5	9.7	1.5	9.0
3B	4.1	11.7	4.1	11.0
4B	5.1	16.0	5.1	15.0
5B	9.6	25.0	9.6	15.5
0K	1.0	5.0	1.0	5.0
1K	1.3	8.5 ³⁾	1.3	8.5
2K	1.3	10.5 ³⁾	1.3	10.5
3K	2.6	15.0 ³⁾	2.6	15.0
4K	4.6	23.5 ³⁾	4.6	15.0
5K	9.6	23.5	-	-

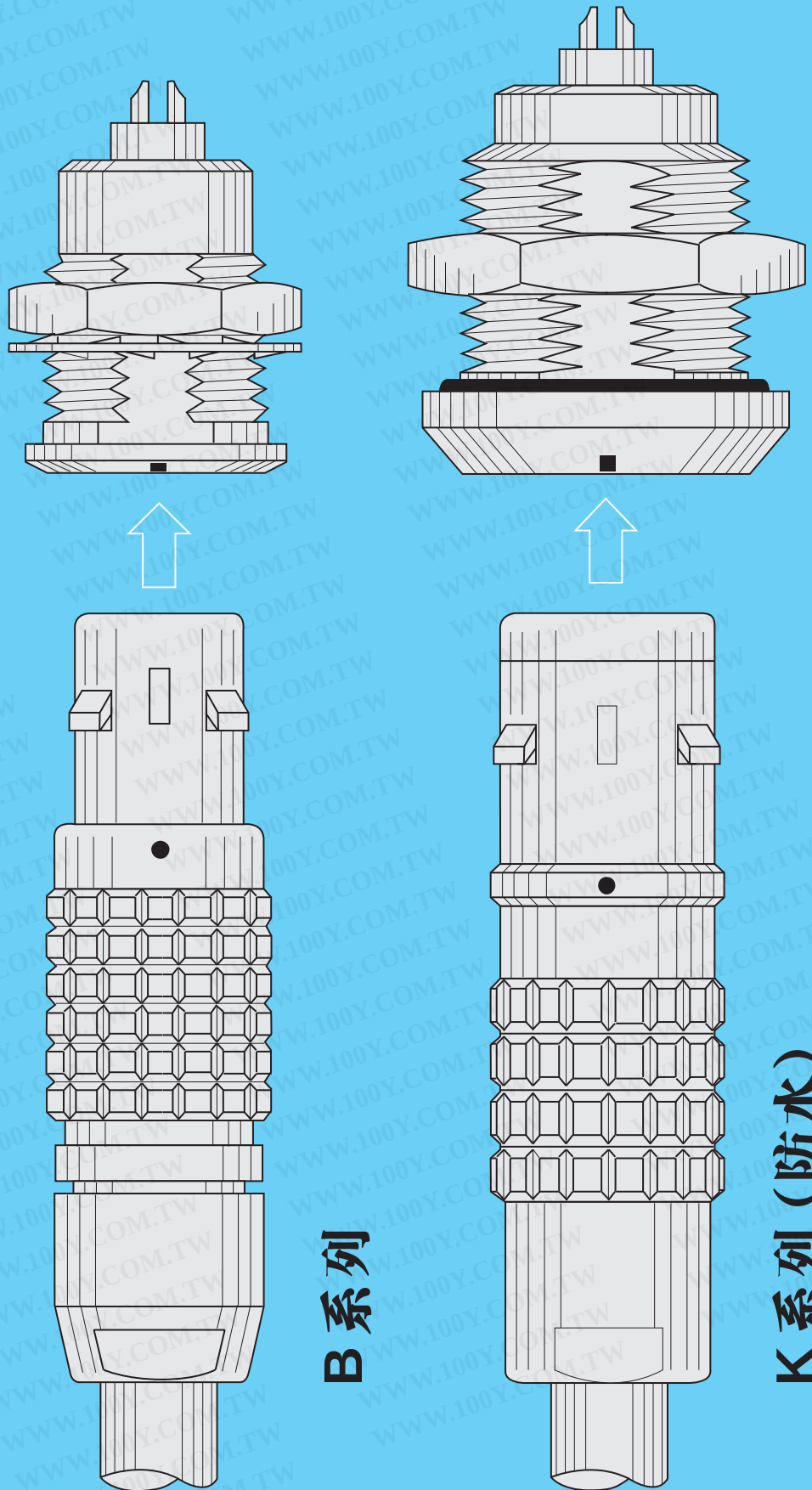
系列	电缆外径范围 (mm)			
	线夹		配护套的线夹	
	最小值	最大值	最小值	最大值
00 ²⁾	1.1	4.1	1.1	4.1
0S	1.3	6.7	1.3	6.1
1S	1.3	8.5	1.3	8.0
2S	1.3	10.5	1.3	10.0
3S	2.5	13.0	2.5	13.0
4S	4.1	22.0	4.1	13.0
5S	6.1	30.0	-	-
6S	11.1	30.0	-	-
0E	1.0	5.0	1.0	5.0
1E	1.3	8.5 ³⁾	1.3	8.5
2E	1.3	10.5 ³⁾	1.3	10.5
3E	2.6	15.0 ³⁾	2.6	15.0
4E	4.6	23.5 ³⁾	4.6	15.0
5E	9.6	23.5	-	-
6E	13.0	30.0	-	-
0L	1.0	5.0	1.0	5.0
1L	1.3	8.5 ³⁾	1.3	8.5
2L	1.3	10.5 ³⁾	1.3	10.5

系列	电缆外径范围 (mm)			
	线夹		配护套的线夹	
	最小值	最大值	最小值	最大值
2C	2.2	8.1	2.2	8.1
2G	4.5	7.9	4.5	7.9
1D	3.1	7.5	3.1	7.0

注:

- ¹⁾ 仅适于多芯。
- ²⁾ 仅适于单芯。
- ³⁾ 这些系列的连接器可通过选用加大尺寸的线夹 (K 型线夹) 来适配最大外径的电缆。

勝特力材料 886-3-5753170
勝特力电子(上海) 86-21-34970699
勝特力电子(深圳) 86-755-83298787
[Http://www.100y.com.tw](http://www.100y.com.tw)



B 系列

K 系列 (防水)

B 系列

勝特力材料 886-3-5753170
勝特力电子(上海) 86-21-34970699
勝特力电子(深圳) 86-755-83298787
[Http://www.100y.com.tw](http://www.100y.com.tw)

B 系列连接器具备下列主要特征:

- 安全的插拔自锁系统
- 焊接、压接和印制板接针芯 (直式或弯角式)
- 多种定位销选择可避免相似连接器之间的混插
- 360° 屏蔽提供全方位 EMC 防护 (抗电磁干扰)

- 多芯类型 2-64 芯
- 高密度安装, 节约空间
- 定位销系统 (<G> 为标准定位销) 用于连接器对位

金属外壳型号 (第 12 页)

固定式插头

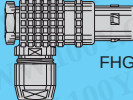


FWG

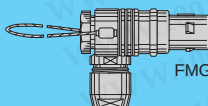


FAG

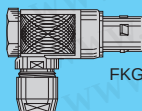
弯角式插头



FHG

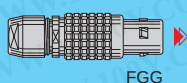


FMG

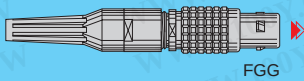


FKG

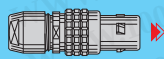
直式插头



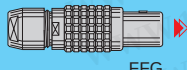
FGG



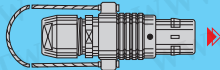
FGG



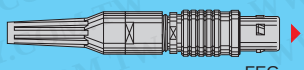
JGG



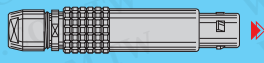
FFG



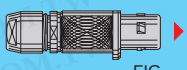
FNG



FEG



FDG



FIG

固定式插座



EGG



ENG



EKG



ESG



EHG



EJG



EEG



EFG



ECG



ECG



ECG



EZG



EYG



XPF



R**



R**



R**

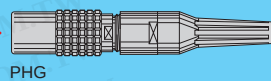


R**

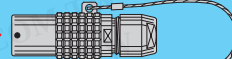
浮动式插座



PHG



PHG



PNG



PKG



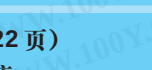
PFG



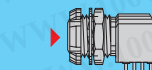
PEG



PEG



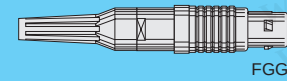
PEG



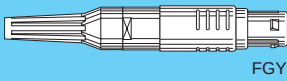
PEG

塑料外壳型号 (第 24 页)

直式插头

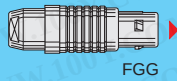


FGG

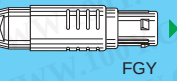


FGY

固定式插座



FGG



FGY



ENG



ENY

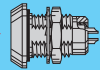
水密或真空密封型号 (第 26 页)

固定式插头



YHG

固定式插座



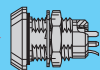
HGG



HHG



HEG



HNG



HCG



HMG

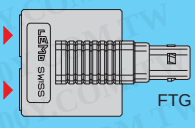
固定式双通



S**

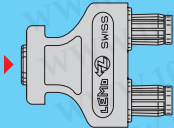
桥式连接器型号 (第 29 页)

带两个平行插座的插头



FTG

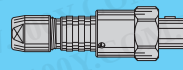
桥式插头



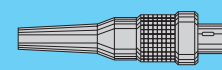
CFF, CRG

螺纹锁定型号 (第 30 页)

直式插头



FVG



FVB

固定式插座



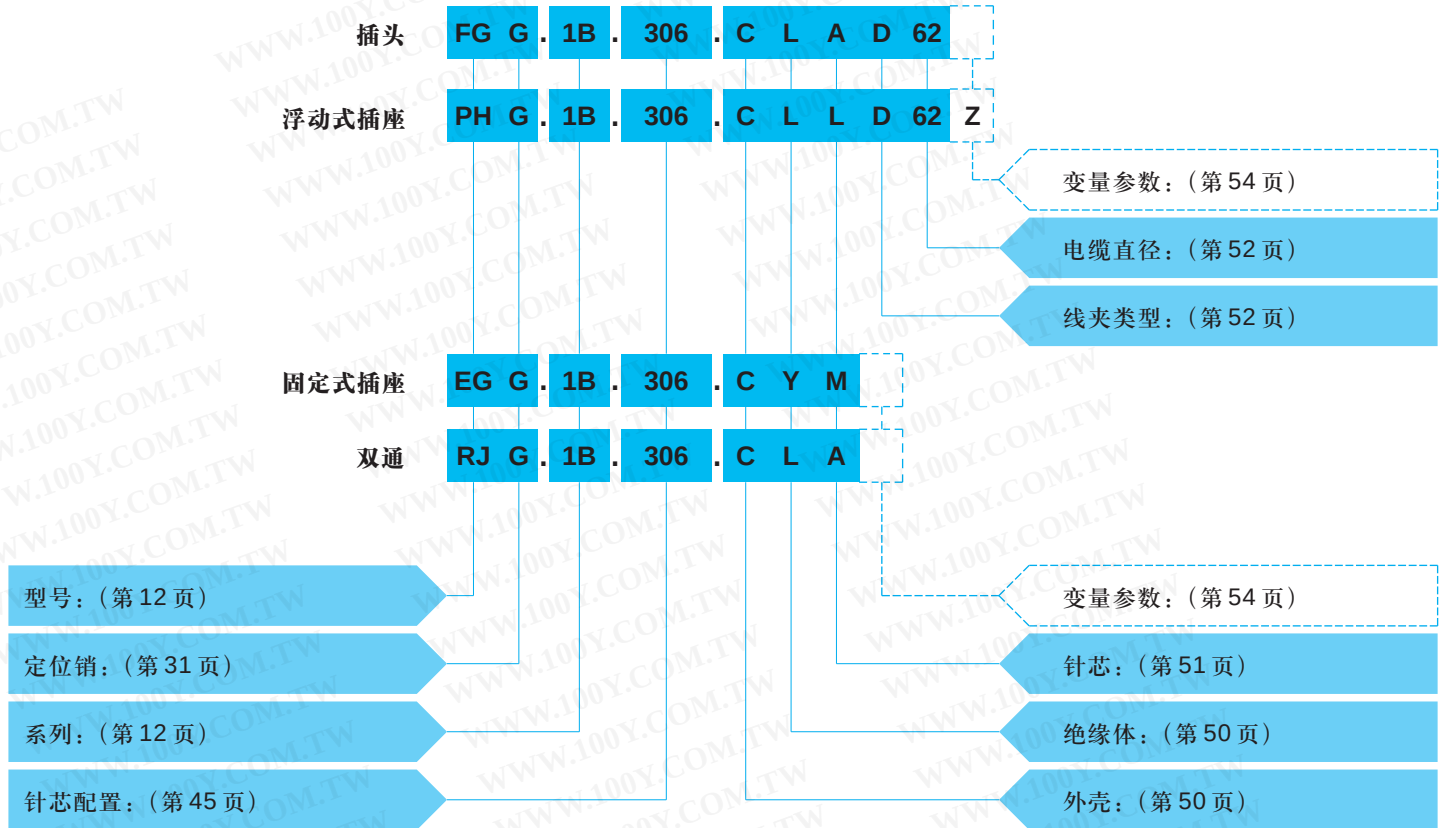
ESG

弯角式插座



XRB

产品编号规则



产品编号举例

带线夹的直式插头:

FGG.1B.306.CLAD62 = 直式插头, 定位销 (G), 带线夹, 1B 系列, 多芯类型, 6 芯, 黄铜镀铬外壳, PEEK 绝缘体, 焊接型公针芯, 适用于外径 6.0mm 电缆的 D 型线夹

浮动式插座:

PHG.1B.306.CLLD62Z = 浮动式插座, 定位销 (G), 带线夹, 1B 系列, 多芯类型, 6 芯, 黄铜镀铬外壳, PEEK 绝缘体, 焊接型母针芯, 适用于外径 6.0mm 电缆的 D 型线夹, 带护套型号的尾盖

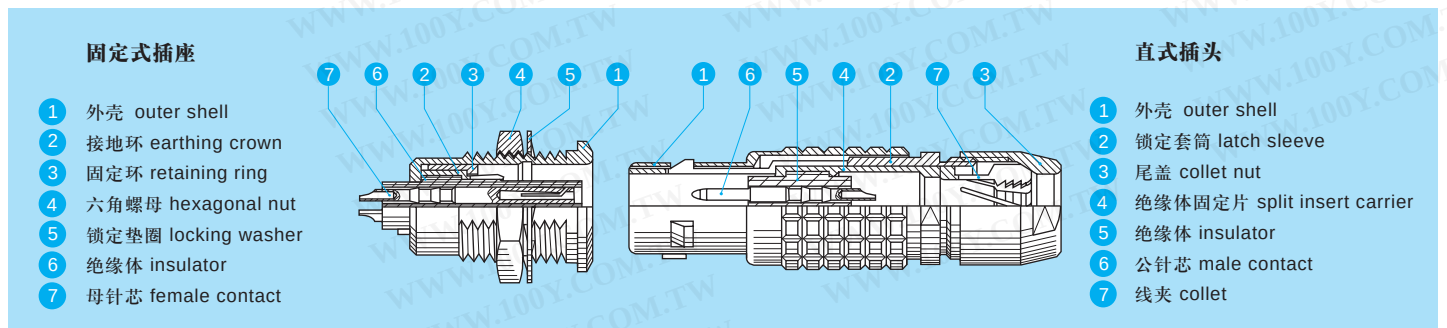
固定式插座:

EGG.1B.306.CYM = 固定式插座, 螺母固定, 定位销 (G), 1B 系列, 多芯类型, 6 芯, 黄铜镀铬外壳, PEEK 加长绝缘体, 压接型母针芯

固定式双通:

RJG.1B.306.CLA = 直的固定式双通, 螺母固定, 法兰端带定位销 (J), 另一端带定位销 (G), 1B 系列, 多芯类型, 6 芯, 黄铜镀铬外壳, PEEK 绝缘体, 公-母针芯

产品剖面图



金属外壳型号

勝特力材料 886-3-5753170
勝特力电子(上海) 86-21-34970699
勝特力电子(深圳) 86-755-83298787
[Http://www.100y.com.tw](http://www.100y.com.tw)

技术特性

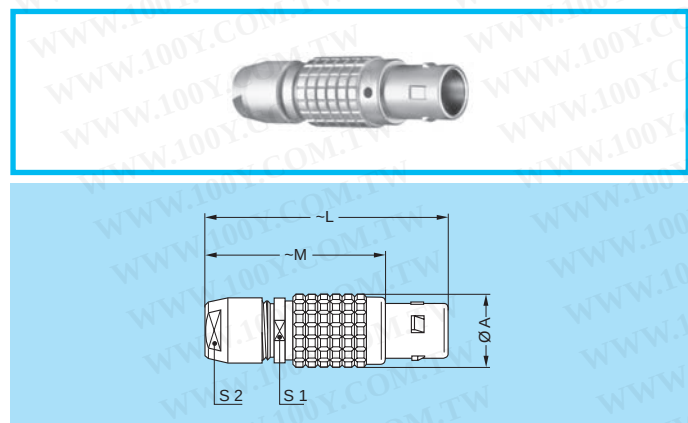
机械性能和环境因素

特性	参数	标准
插拔次数	> 5000 次	IEC60512-5 试验 9a
湿度	在 60°C 时最高达 95%	
温度范围	-55°C, +250°C	
抗振动性能	10-2000Hz, 15g	IEC60512-4 试验 6d
抗冲击性能	100g, 6ms	IEC60512-4 试验 6c
盐雾腐蚀试验	> 144 h	IEC60512-6 试验 11f
防护等级 (插合时)	IP 50	IEC60529
环境实验	55/175/21	IEC60068-1

电气性能

特性	参数	标准
屏蔽效果	在 10MHz 下	> 75 dB
	在 1GHz 下	> 40 dB
		IEC60169-1-3

注：
以上数据是对外壳采用黄铜镀铬，绝缘体采用 PEEK 材料的 FGG 插头和 EGG 插座进行的各项试验得出。
详细的电气性能、材料和表面处理方法在第 171 页的《技术特性》章节中进行了介绍。

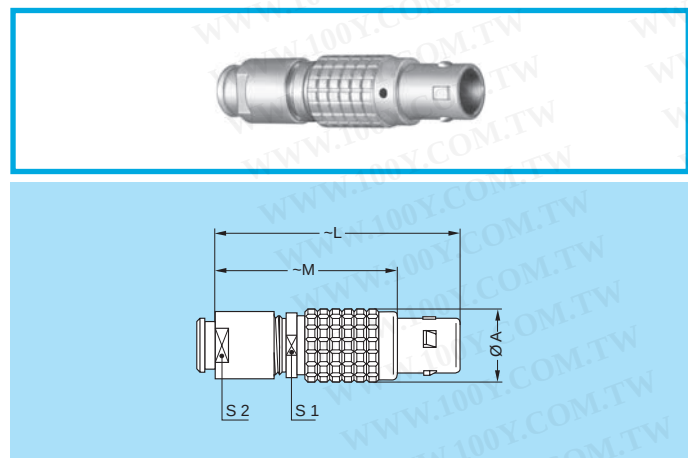


FGG 直式插头，定位销 (G) 或定位销 (A...M 和 R)，电缆线夹

编号		尺寸 (mm)					
型号	系列	A	L	M	S1	S2	
FGG	00 ¹⁾	6.4	28.5	20.5	5.5	5	
FGG	0B	9.5	36.0	26.0	8.0	7	
FGG	1B	12.0	43.0	32.0	10.0	9	
FGG	2B	15.0	50.0	38.0	13.0	12	
FGG	3B	18.0	58.0	43.0	15.0	14	
FGG	4B	25.0	75.0	57.0	21.0	20	
FGG	5B	35.0	103.0	78.0	31.0	30	

M1
电缆组装
见第 161 页

注：¹⁾ 00 系列的表面设计有别于其他系列。



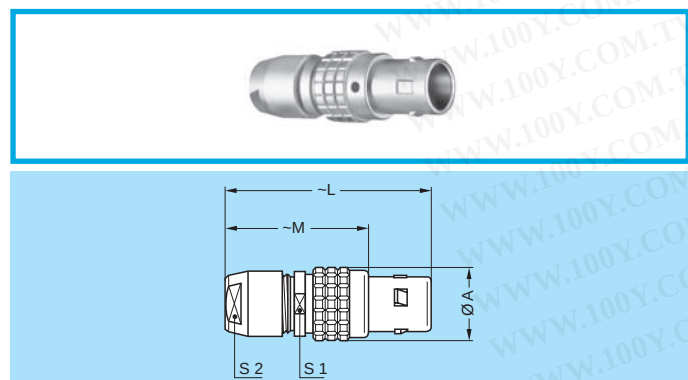
FGG 直式插头，定位销 (G) 或定位销 (A...M)，电缆线夹和带护套型的尾盖²⁾

编号		尺寸 (mm)					
型号	系列	A	L	M	S1	S2	
FGG	00 ¹⁾	6.4	36.5	28.5	5.5	6	
FGG	0B	9.5	35.0	25.0	8.0	7	
FGG	1B	12.0	42.0	31.0	10.0	9	
FGG	2B	15.0	49.0	37.0	13.0	12	
FGG	3B	18.0	56.5	41.5	15.0	15	
FGG	4B	25.0	71.0	53.0	21.0	20	

M1
电缆组装
见第 161 页

注：¹⁾ 00 系列的表面设计有别于其他系列。
²⁾ 订购时，在编号最后加一字母“Z”。

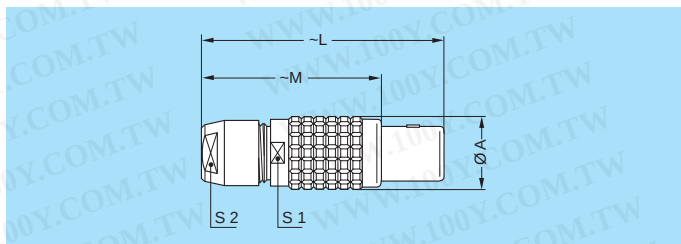
护套需另外订购 (见第 141 页)。



JGG 直式插头，短型，定位销 (G)

编号		尺寸 (mm)					
型号	系列	A	L	M	S1	S2	
JGG	0B	9.5	32.0	22.0	8.0	7	

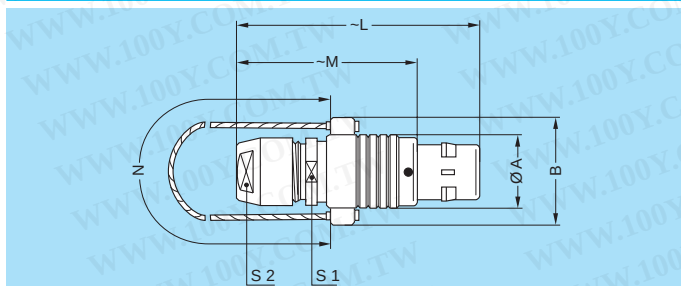
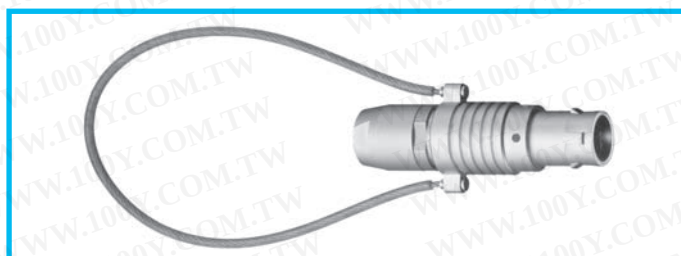
M4 电缆组装见第 161 页



FFG 直式插头，不带锁定装置，定位销 (G)
或定位销 (A ... M)，电缆线夹

编号		尺寸 (mm)				
型号	系列	A	L	M	S1	S2
FFG	0B	9.5	36	26	8	7
FFG	1B	12.0	43	32	10	9
FFG	2B	15.0	50	38	13	12
FFG	3B	18.0	58	43	15	14
FFG	4B	25.0	75	57	21	20

M1 电缆组装见第 161 页

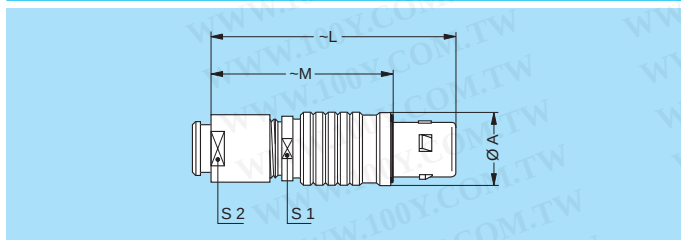


FNG 直式插头，定位销 (G) 或定位销 (A ... M 和 R)，
电缆线夹和解锁拉绳

编号		尺寸 (mm)						
型号	系列	A	B	L	M	N	S1	S2
FNG	0B	9.5	15.5	36.0	26.0	140	8	7
FNG	1B	12.0	18.0	43.0	32.0	140	10	9
FNG	2B	15.0	21.0	49.0	37.0	160	13	12
FNG	3B	18.0	25.0	58.0	43.0	190	15	14
FNG	4B	25.0	35.2	75.0	57.0	230	21	20
FNG	5B	35.0	47.0	103.0	78.0	300	31	30

M1 电缆组装见第 161 页

注：拉绳材料：不锈钢索加聚 胺外皮。
4B 和 5B 系列的外壳设计与 PNG 型号类似。



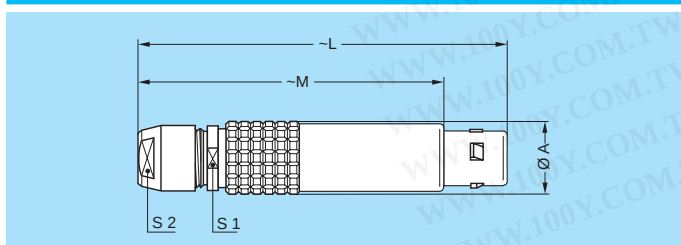
FEG 直式插头，定位销 (G) 或定位销 (A ... L)，
电缆线夹，前面密封和带护套型的尾盖¹⁾
(插合时保护等级为 IP 54)

编号		尺寸 (mm)				
型号	系列	A	L	M	S1	S2
FEG	0B	11.0	35.0	25.0	8	7
FEG	1B	13.5	42.0	33.0	10	9
FEG	2B	16.5	48.0	36.0	13	12
FEG	3B	19.0	56.5	41.5	15	15

M1
电缆组装
见第 161 页

注：¹⁾ 订购时，在编号最后加一字母“Z”。

护套需另外订购 (见第 141 页)。



FDG 直式插头，加长型，定位销 (G) 或定位销 (A ... L)，
电缆线夹

编号		尺寸 (mm)				
型号	系列	A	L	M	S1	S2
FDG	1B	12	68	57	10	9
FDG	2B	15	79	67	13	12

M2 电缆组装见第 162 页

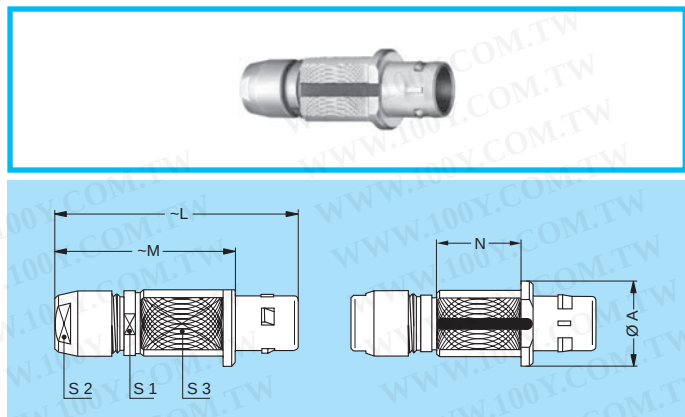
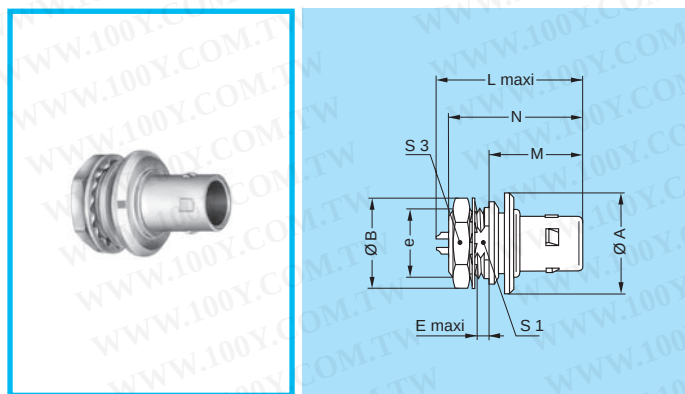


FIG 适用于遥控操作的直式插头，定位销(G)或定位销(A...L和R)，特殊对位标记，滚花操作表面，电缆线夹

编号		尺寸 (mm)						
型号	系列	A	L	M	N	S1	S2	S3
FIG	2B	20	49	37	17.5	13	12	15
FIG	3B	22	58	43	21.5	15	14	18
FIG	4B	30	75	57	28.5	21	20	25
FIG	5B	40	103	78	41.0	31	30	35

M1 电缆组装见第 161 页

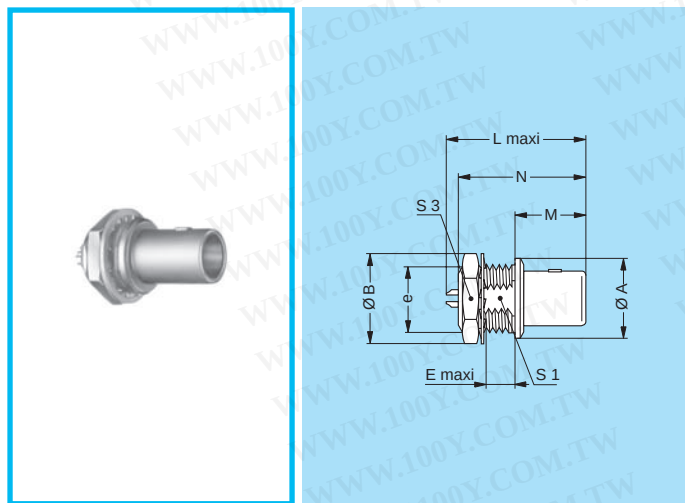


FWG 固定式插头，螺母固定，定位销(G)或定位销(A...L)

编号		尺寸 (mm)								
型号	系列	A	B	e	E	L	M	N ¹⁾	S1	S3
FWG	1B	18.0	15.8	M12x1.0	2.9	24.9	17	24.8	10.5	14
FWG	2B	19.5	19.2	M15x1.0	4.1	28.6	18	27.3	13.5	17

P9 面板开口尺寸见第 152 页

注：¹⁾ 压接针芯时的最大长度。

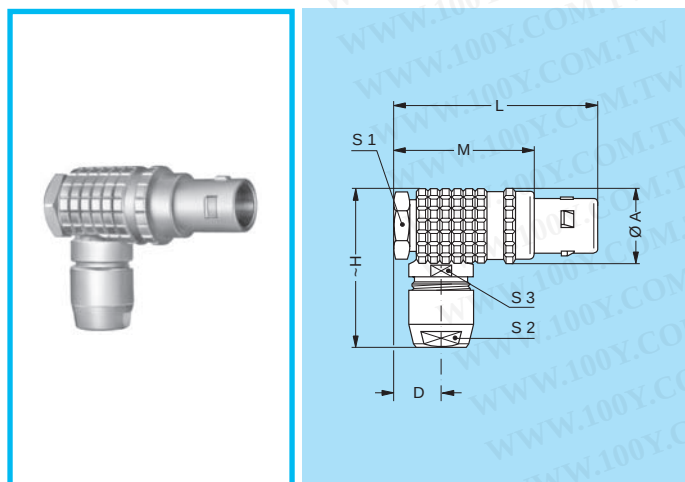


FAG 固定式插头，不带锁定装置，螺母固定，定位销(G)或定位销(A...M和R)

编号		尺寸 (mm)								
型号	系列	A	B	e	E	L	M	N ¹⁾	S1	S3
FAG	00	8	10.2	M7x0.5	2.9	18.1	9.0	15.0	6.3	9
FAG	0B	10	12.4	M9x0.6	4.2	20.8	11.2	18.9	8.2	11
FAG	1B	14	15.8	M12x1.0	5.4	25.2	12.5	21.6	10.5	14
FAG	2B	18	19.2	M15x1.0	6.0	28.7	13.8	23.9	13.5	17
FAG	3B	22	25.0	M18x1.0	5.8	32.1	17.0	30.2	16.5	22
FAG	4B	29	34.0	M25x1.0	6.8	37.1	20.5	34.7	23.5	30
FAG	5B	40	40.0	M35x1.0	6.8	47.1	28.0	42.8	33.5	-

P1 面板开口尺寸见第 152 页

注：¹⁾ 压接针芯时的最大长度。
出厂时，5B 系列配有圆螺母，但是不带锁定垫圈或锥形垫圈。

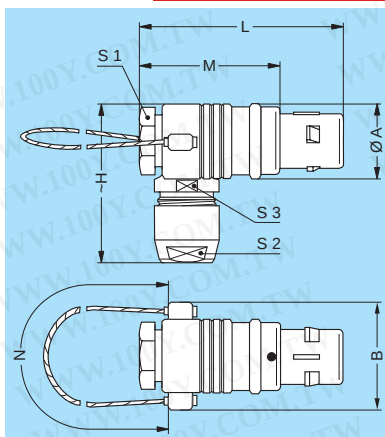


FHG 90° 弯角式插头，定位销(G)或定位销(A...M和R)，电缆线夹

编号		尺寸 (mm)							
型号	系列	A	D	H	L	M	S1	S2	S3
FHG	00 ¹⁾	7.7	5.2	18.0	24.5	16.5	7	5	5.5
FHG	0B	11.0	6.5	26.0	31.6	21.6	10	7	8.0
FHG	1B	13.5	8.0	30.5	36.0	25.0	11	9	10.0
FHG	2B	16.5	9.0	34.0	41.5	29.5	14	12	13.0
FHG	3B	19.0	10.0	37.0	50.0	35.0	17	14	15.0
FHG	4B	26.0	15.0	52.0	67.0	49.0	22	20	21.0
FHG	5B	36.0	21.0	74.0	90.0	65.0	32	30	31.0

M3 电缆组装见第 161 页

注：¹⁾ 00 系列的表面设计有别于其他系列。

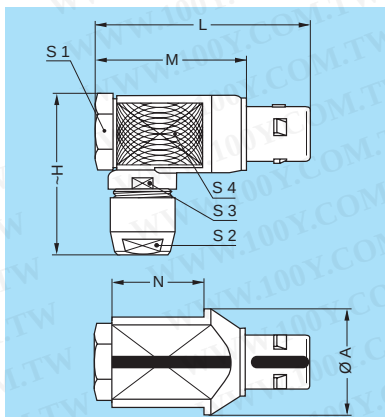


FMG 90°弯角式插头, 定位销(G)或定位销(A...M), 电缆线夹和解锁拉绳, 长定位销

编号		尺寸 (mm)								
型号	系列	A	B	H	L	M	N	S1	S2	S3
FMG	0B	11	17	26	31.6	21.6	140	10	7	8

M3 电缆组装见第 161 页

注: 拉绳材料: 不锈钢索加聚 胺外皮。

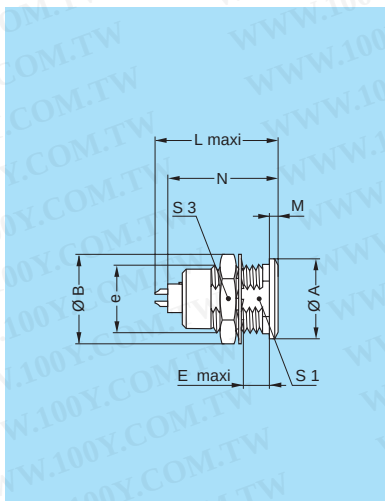


FKG 适用于遥控操作的 90°弯角式插头, 定位销(G)或定位销(A...L), 特殊对位标记, 滚花操作表面, 电缆线夹

编号		尺寸 (mm)								
型号	系列	A	H	L	M	N	S1	S2	S3	S4
FKG	3B	25	37.0	50.0	35.0	21.0	17	14	15	21
FKG	4B	32	52.0	67.0	49.0	28.5	22	20	21	26
FKG	5B	46	74.2	89.5	64.5	40.0	32	30	31	38

M3 电缆组装见第 161 页

注: 尺寸D与FHG型号尺寸相同

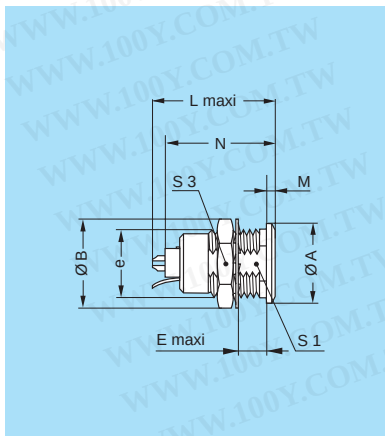


EGG 固定式插座, 螺母固定, 定位销(G)或定位销(A...M和R)

编号		尺寸 (mm)								
型号	系列	A	B	e	E	L	M	N ¹⁾	S1	S3
EGG	00	8	10.2	M7x0.5	6.0	15.5	1.0	13.7	6.3	9
EGG	0B	10	12.4	M9x0.6	7.0	20.7	1.2	19.1	8.2	11
EGG	1B	14	15.8	M12x1.0	7.5	23.0	1.5	21.1	10.5	14
EGG	2B	18	19.2	M15x1.0	8.5	26.7	1.8	24.6	13.5	17
EGG	3B	22	25.0	M18x1.0	11.5	30.7	2.0	28.1	16.5	22
EGG	4B	28	34.0	M25x1.0	12.0	35.7	2.5	34.1	23.5	30
EGG	5B	40	40.0	M35x1.0	11.0	43.5	3.0	39.6	33.5	-

P1 面板开口尺寸见第 152 页

注: ¹⁾ 压接针芯时的最大长度。
 5B系列出厂时配有锥形垫圈和圆螺母。

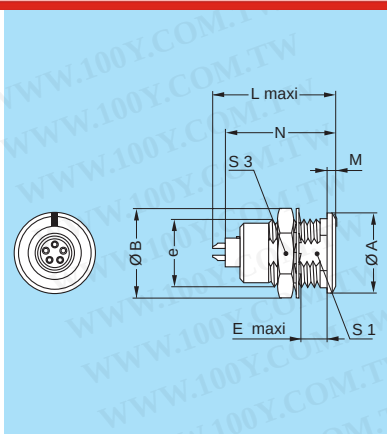


ENG 固定式插座带接地脚, 螺母固定, 定位销(G)或定位销(A...M)

编号		尺寸 (mm)								
型号	系列	A	B	e	E	L	M	N ¹⁾	S1	S3
ENG	0B	10	12.4	M9x0.6	7.0	20.7	1.2	19.1	8.2	11
ENG	1B ²⁾	14	15.8	M12x1.0	7.5	23.0	1.5	21.1	10.5	14
ENG	2B	18	19.2	M15x1.0	8.5	26.7	1.8	24.6	13.5	17
ENG	3B	22	25.0	M18x1.0	11.5	30.7	2.0	28.1	16.5	22
ENG	4B	28	34.0	M25x1.0	12.0	35.7	2.5	34.1	23.5	30

P1 面板开口尺寸见第 152 页

注: ¹⁾ 压接针芯时的最大长度。
²⁾ 1B系列的接地脚位于上端。

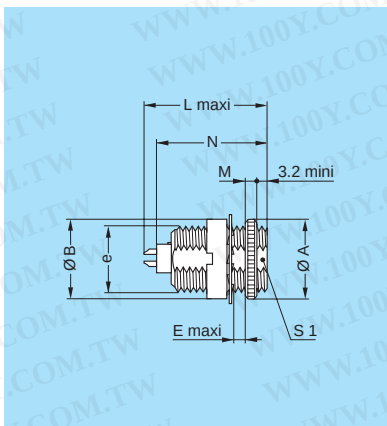


EKG 固定式插座, 螺母固定, 定位销 (G) 或定位销 (A ... L 和 R), 前面有特殊对位标记

编号		尺寸 (mm)								
型号	系列	A	B	e	E	L	M	N ¹⁾	S1	S3
EKG	2B	18	19.2	M15x1.0	8.5	26.7	1.8	24.6	13.5	17
EKG	3B	22	25.0	M18x1.0	11.5	30.7	2.0	28.1	16.5	22
EKG	4B	28	34.0	M25x1.0	12.0	35.7	2.5	34.1	23.5	30
EKG	5B	40	40.0	M35x1.0	11.0	43.5	3.0	39.6	33.5	-

P1 面板开口尺寸见第 152 页

注: ¹⁾ 压接针芯时的最大长度。
出厂时, 5B 系列配有锥形垫圈和圆螺母。



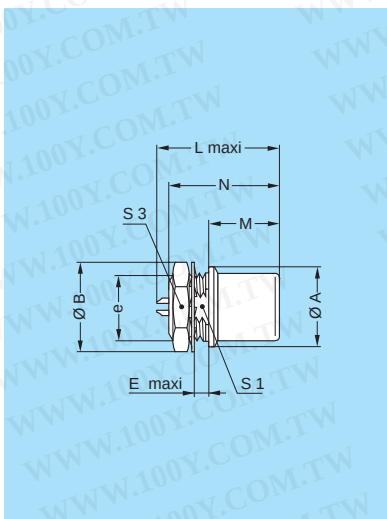
ESG 固定式插座, 带两个圆螺母, 定位销 (G) 或定位销 (A ... L), 长螺纹外壳 (后面板安装)

编号		尺寸 (mm)							
型号	系列	A	B	e	E	L	M	N ¹⁾	S1
ESG	00	9.5	9	M7x0.5	4.2	15.5	2	13.7	-
ESG	1B	14.0	14	M12x1.0	8.0	23.0	2	21.1	10.5

P1 1B 系列面板开口尺寸见第 152 页

P2 0B 系列面板开口尺寸见第 152 页

注: ¹⁾ 压接针芯时的最大长度。

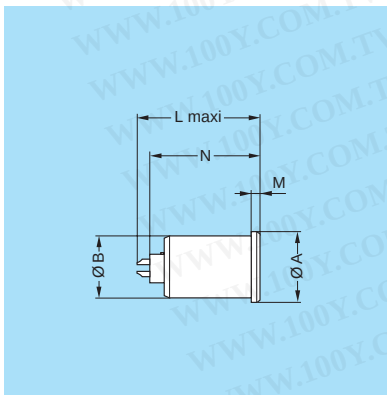


EHG 固定式插座, 螺母固定, 定位销 (G) 或定位销 (A ... M 和 R), 凸出式外壳

编号		尺寸 (mm)								
型号	系列	A	B	e	E	L	M	N ¹⁾	S1	S3
EHG	00	8.0	10.2	M7x0.5	2.0	15.5	8.5	13.7	6.3	9
EHG	0B	10.0	12.4	M9x0.6	2.0	19.5	12.5	19.1	8.2	11
EHG	1B	14.0	15.8	M12x1.0	4.0	21.7	12.0	21.1	10.5	14
EHG	2B	18.0	19.2	M15x1.0	5.1	22.7	12.5	24.6	13.5	17
EHG	3B	22.0	25.0	M18x1.0	7.1	30.7	13.5	30.3	16.5	22
EHG	5B	40.0	40.0	M35x1.0	2.5	43.5	28.0	38.5	33.5	-

P1 面板开口尺寸见第 152 页

注: ¹⁾ 压接针芯时的最大长度。
出厂时, 5B 系列配有圆螺母, 但是不带锁定垫圈或锥形垫圈。



EJG 固定式插座, 压合或粘合连接, 定位销 (G) 或定位销 (A ... M)

编号		尺寸 (mm)				
型号	系列	A	B	L	M	N ¹⁾
EJG	0B	9.2	8.35	20.7	1.5	19.1
EJG	1B	12.5	11.20	23.0	1.5	21.1
EJG	2B	16.5	14.00	26.7	1.5	24.6

P5 面板开口尺寸见第 152 页

注: ¹⁾ 压接针芯时的最大长度。

EEG 固定式插座，螺母固定，定位销 (G) 或定位销 (A ... M 和 R)
 (后面板安装)

编号		尺寸 (mm)									
型号	系列	A	B	e	E	L	M	N ¹⁾	P	S1	S2
EEG	00	10	9.5	M7x0.5	2.3	15.5	2.5	13.7	6.0	6.3	7.5
EEG	0B	12	12.5	M9x0.6	2.4	20.7	2.5	19.1	6.3	8.2	9.0
EEG	1B	16	16.0	M12x1.0	6.5	23.0	3.5	21.1	11.0	10.5	13.0
EEG	2B	20	20.0	M15x1.0	3.0	26.7	3.5	24.6	9.0	13.5	15.0
EEG	3B	24	25.0	M18x1.0	5.0	30.7	4.5	28.1	12.0	16.5	20.0
EEG	5B	41	40.0	M35x1.0	13.5	43.5	5.0	39.6	19.5	33.5	38.0

P1 面板开口尺寸见第 152 页

注: ¹⁾ 压接针芯时的最大长度。
 3B 和 5B 系列出厂时配有圆锥螺母。5B 系列出厂时不配置锁定垫圈或锥形垫圈。

EFG 固定式插座，螺母固定，定位销 (G) 或定位销 (A ... M)，
 外壳上有两个平面和一个 O 形圈 (后面板安装)

编号		尺寸 (mm)								
型号	系列	A	B	e	E	L	M	N ¹⁾	P	S2
EFG	0B	12	12.5	M9x0.6	5.5	20.7	2.5	19.1	9	8

P2 面板开口尺寸见第 152 页

注: ¹⁾ 压接针芯时的最大长度。

ECG 固定式插座，带两个螺母，定位销 (G) 或定位销 (A ... M 和 R)
 (后面板安装)

编号		尺寸 (mm)								
型号	系列	A	B	e	E	L	M	N ¹⁾	S1	S3
ECG	00	10	10.2	M7x0.5	4.3	13.7	2.5	13.7	6.3	9
ECG	0B	12	12.4	M9x0.6	5.5	20.7	2.5	19.1	8.2	11
ECG	1B	16	15.8	M12x1.0	6.0	23.0	3.5	21.1	10.5	14
ECG	2B	20	19.2	M15x1.0	6.5	26.7	3.5	24.6	13.5	17
ECG	3B	24	25.0	M18x1.0	9.0	30.7	4.5	28.1	16.5	22
ECG	4B	30	34.0	M25x1.0	10.0	35.7	4.5	32.6	23.5	30
ECG	5B	41	40.0	M35x1.0	9.0	43.5	5.0	39.6	33.5	-

P1 面板开口尺寸见第 152 页

注: ¹⁾ 压接针芯时的最大长度。
 3B、4B 和 5B 系列出厂时配有圆锥螺母。5B 系列出厂时还配有锥形垫圈和圆螺母。

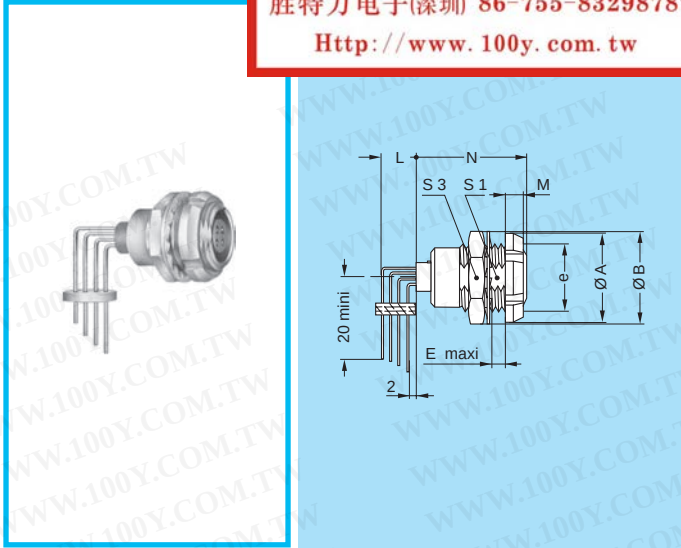
ECG 固定式插座，带两个螺母，定位销 (G) 或定位销 (A ... F 和 R)
 和适用于印制线路板的直针芯 (后面板安装)

编号		尺寸 (mm)							
型号	系列	A	B	e	E	M	N	S1	S3
ECG	00	10	10.2	M7x0.5	4.3	2.5	13.7	6.3	9
ECG	0B	12	12.4	M9x0.6	5.5	2.5	16.4	8.2	11
ECG	1B	16	15.8	M12x1.0	6.0	3.5	19.8	10.5	14
ECG	2B	20	19.2	M15x1.0	6.5	3.5	21.8	13.5	17
ECG	3B	24	25.0	M18x1.0	9.0	4.5	25.8	16.5	22
ECG	4B	30	34.0	M25x1.0	10.0	4.5	29.8	23.5	30
ECG	5B	41	40.0	M35x1.0	9.0	5.0	36.8	33.5	-

P1
 面板
 开口尺寸
 见第 152 页

P15
 PCB 板
 钻孔参数
 见第 154 页

注: 此针芯类型适用于配母针芯的 E●● 插座。
 长度“L”取决于针芯的数量，见第 156 页表格。
 3B、4B 和 5B 系列出厂时配有圆锥螺母。
 5B 系列出厂时配有锥形垫圈和圆螺母。



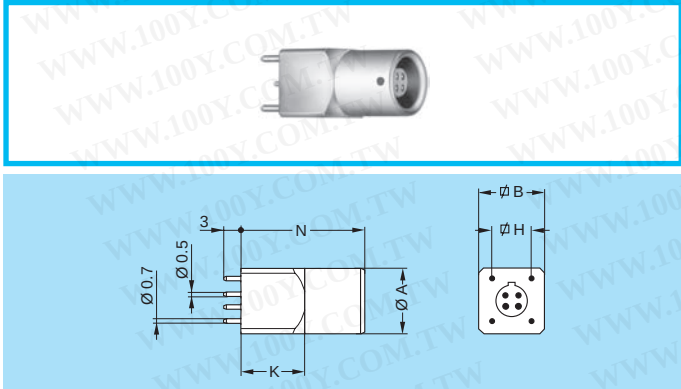
ECG 固定式插座, 两个螺母, 定位销 (G)
 或定位销 (A...F), 适用于印制线路板的
 90°弯角针芯 (后面板安装)

编号		尺寸 (mm)							
型号	系列	A	B	e	E	M	N _{max}	S1	S3
ECG	0B	12	12.4	M9x0.6	2.4	2.5	18.3	8.2	11
ECG	1B	16	15.8	M12x1.0	6.0	3.5	20.3	10.5	14
ECG	2B	20	19.2	M15x1.0	6.5	3.5	22.3	13.5	17
ECG	3B	24	25.0	M18x1.0	9.0	4.5	25.8	16.5	22

P1 面板开口尺寸见第152页

P17 PCB板钻孔参数见第157页

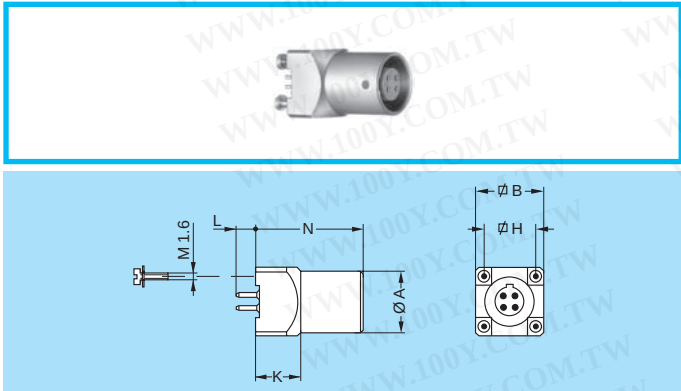
注: 此母针芯类型适用于所有的后面板安装的插座。
 长度“L”取决于针芯的数量, 见第157页的PCB板钻孔参数。
 定位销为J、K或L时, 插座可根据需要装配公针芯。
 3B系列出厂时配有圆锥螺母。



EZG 直式插座适用于印制线路板,
 定位销 (G) 或定位销 (A、L)

编号		尺寸 (mm)				
型号	系列	A	B	H	K	N
EZG	00	6.8	7	5.08	7	14

P15+**P16** PCB板钻孔参数见第154和156页

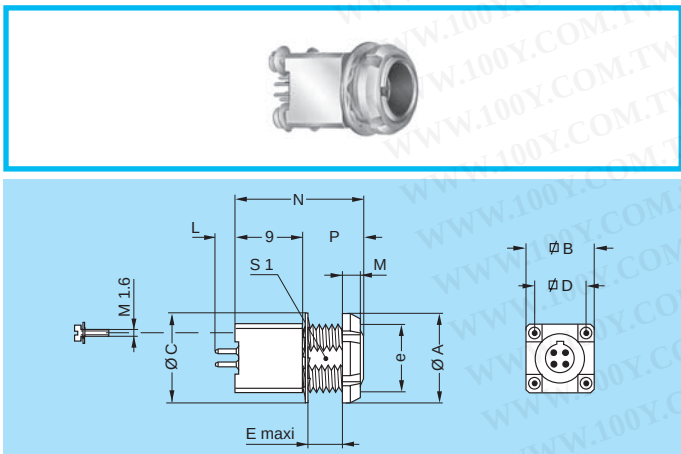


EZG 直式插座适用于印制线路板,
 定位销 (G) 或定位销 (A...F)

编号		尺寸 (mm)				
型号	系列	A	B	H	K	N
EZG	0B	9	10	7.62	8	15.0
EZG	1B	11	12	7.62	8	19.0
EZG	2B	14	15	10.16	9	22.5

P15+**P16** PCB板钻孔参数见第154和156页

注: 长度“L”取决于针芯的数量, 见第156页表格。



EYG 固定式插座适用于印制线路板, 螺母固定,
 定位销 (G) 或定位销 (A...F) (后面板安装)

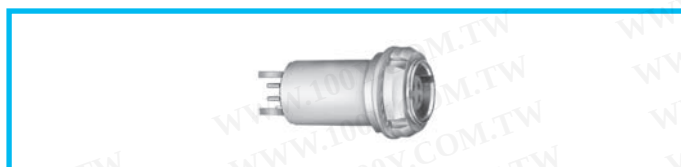
编号		尺寸 (mm)									
型号	系列	A	B	C	D	e	E	M	N	P	S1
EYG	0B	12	10	12.5	7.62	M9x0.6	2.6	2.5	15	6	8.2
EYG	1B	14	12	16.0	7.62	M11x0.5	5.0	3.5	19	10	-
EYG	2B	20	15	19.5	10.16	M15x1.0	7.5	3.5	22.5	13.5	13.5

P1 0B系列面板开口尺寸见第152页

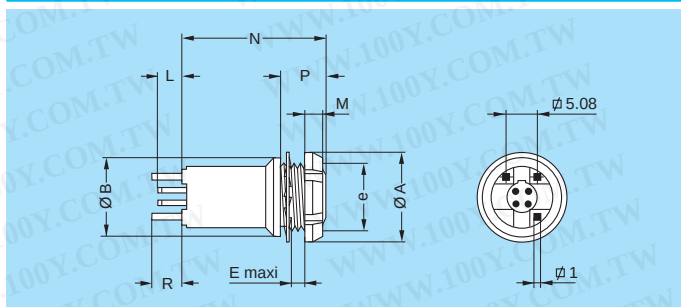
P10 1B系列面板开口尺寸见第152页

P15+**P16** PCB板钻孔参数见第154和156页

注: 长度“L”取决于针芯的数量, 见第156页表格。



XPF 固定式插座，螺母固定，长外壳，定位销(F)，适用于印制线路板(后面板安装)

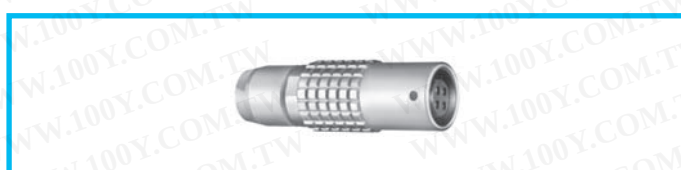


编号		尺寸 (mm)							
型号	系列	A	B	e	E	M	N	P	R
XPF	0B	12	11	M9x0.6	1.5	2.5	19	5	4

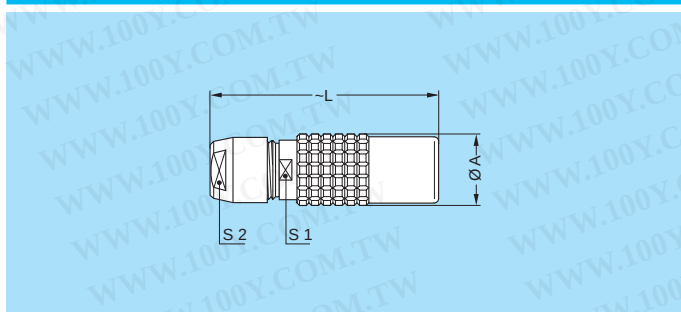
P2 面板开口尺寸见第152页

P15 + **P16** PCB板钻孔参数见第154和156页

注：长度“L”取决于针芯的数量，见第156页表格。



PHG 浮动式插座，定位销(G)或定位销(A...M和R)，电缆线夹



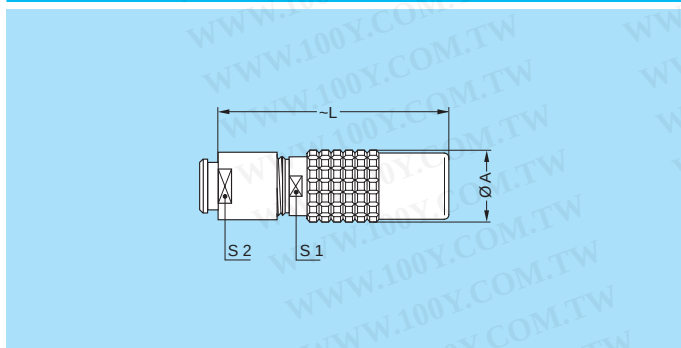
编号		尺寸 (mm)			
型号	系列	A	L	S1	S2
PHG	00 ¹⁾	6.8	26.0	5.5	5
PHG	0B	9.5	35.5	8.0	7
PHG	1B	12.5	40.5	10.0	9
PHG	2B	16.5	47.0	13.0	12
PHG	3B	19.0	56.0	15.0	14
PHG	4B	26.0	73.0	21.0	20
PHG	5B	36.0	99.0	31.0	30

M1 电缆组装见第161页

注：¹⁾ 00系列的表面设计有别于其他系列。



PHG 浮动式插座，定位销(G)或定位销(A...M)，电缆线夹和带护套型的尾盖²⁾



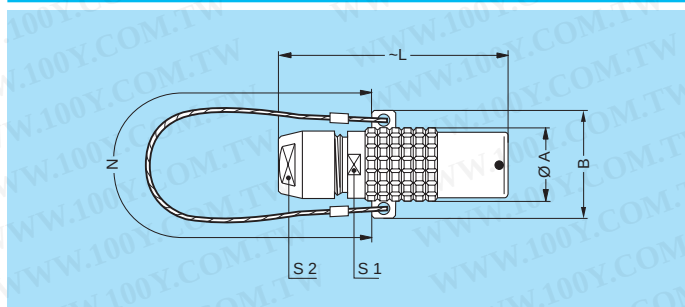
编号		尺寸 (mm)			
型号	系列	A	L	S1	S2
PHG	00 ¹⁾	6.8	34.0	5.5	6
PHG	0B	9.5	34.5	8.0	7
PHG	1B	12.5	39.5	10.0	9
PHG	2B	16.5	46.0	13.0	12
PHG	3B	19.0	54.5	15.0	15
PHG	4B	26.0	69.0	21.0	20

M1 电缆组装见第161页

注：¹⁾ 00系列的表面设计有别于其他系列。

²⁾ 订购时，在编号最后加一字母“Z”。

护套需另外订购(见第141页)。

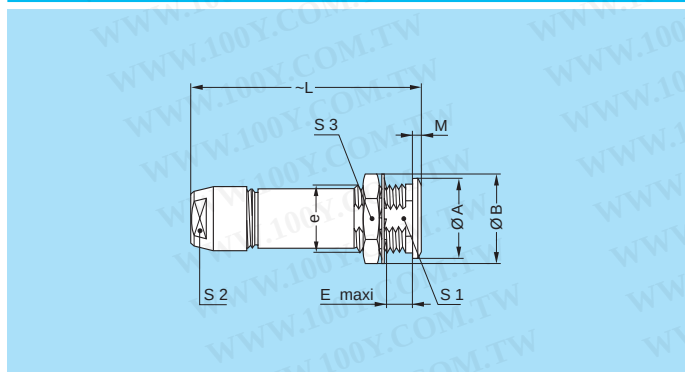


PNG 浮动式插座, 定位销 (G) 或定位销 (A ... L 和 R), 电缆线夹和解锁拉绳

编号		尺寸 (mm)					
型号	系列	A	B	L	N	S1	S2
PNG	1B	12.4	18.4	40.5	140	10	9
PNG	2B	16.5	22.5	47.0	160	13	12
PNG	3B	19.0	26.0	56.0	190	15	14
PNG	4B	26.0	33.0	73.0	230	21	20
PNG	5B	36.0	43.0	99.0	300	31	30

M1 电缆组装见第 161 页

注: 拉绳材料: 不锈钢索加聚酰胺外皮。



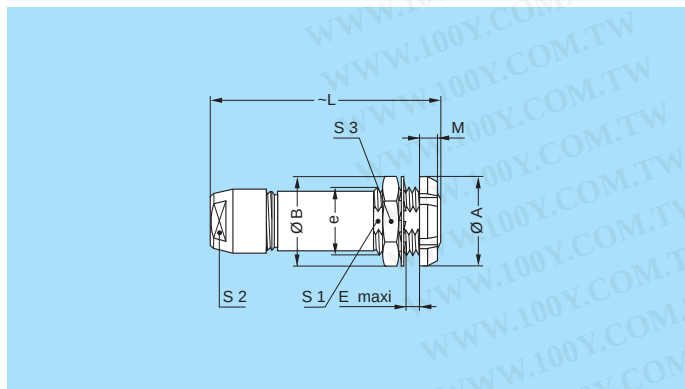
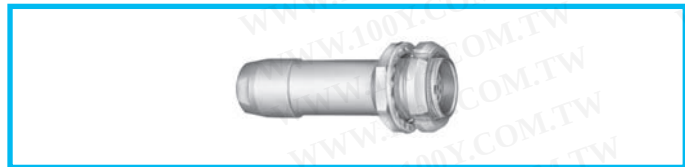
PKG 固定式插座, 螺母固定, 定位销 (G) 或定位销 (A ... M 和 R), 电缆线夹

编号		尺寸 (mm)								
型号	系列	A	B	e	E	L	M	S1	S2	S3
PKG	00	8	10.2	M7x0.5	6.5	26.0	1.0	6.3	5	9
PKG	0B	10	12.4	M9x0.6	7.0	35.5	1.2	8.2	7	11
PKG	1B	14	15.8	M12x1.0	7.5	40.5	1.5	10.5	9	14
PKG	2B	18	19.2	M15x1.0	8.5	47.0	1.8	13.5	12	17
PKG	3B	22	25.0	M18x1.0	11.5	56.0	2.0	16.5	14	22
PKG	4B	28	34.0	M25x1.0	12.0	73.0	2.5	23.5	20	30
PKG	5B	40	40.0	M35x1.0	11.0	99.0	3.0	33.5	30	-

P1 面板开口尺寸见第 152 页

M1 电缆组装见第 161 页

注: 5B 系列出厂时配有锥形垫圈和圆螺母。



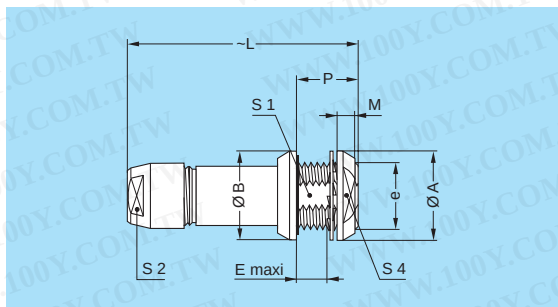
PFG 固定式插座, 两个螺母, 定位销 (G) 或定位销 (A ... M 和 R), 电缆线夹 (后面板安装)

编号		尺寸 (mm)								
型号	系列	A	B	e	E	L	M	S1	S2	S3
PFG	00	10	10.2	M7x0.5	5.3	26.0	2.5	6.3	5	9
PFG	0B	12	12.4	M9x0.6	5.0	35.5	2.5	8.2	7	11
PFG	1B	16	15.8	M12x1.0	5.0	40.5	3.5	10.5	9	14
PFG	2B	20	19.2	M15x1.0	6.5	47.0	3.5	13.5	12	17
PFG	3B	24	25.0	M18x1.0	9.0	56.0	4.5	16.5	14	22
PFG	4B	30	34.0	M25x1.0	11.0	73.0	4.5	23.5	20	30
PFG	5B	41	40.0	M35x1.0	10.0	99.0	5.0	33.5	30	-

P1 面板开口尺寸见第 152 页

M1 电缆组装见第 161 页

注: 3B、4B 和 5B 系列出厂时配有圆锥螺母。
5B 系列出厂时还配有锥形垫圈和圆螺母。



PEG 固定式插座，螺母固定，定位销 (G) 或定位销 (A ... L)，
电缆线夹 (后面板安装)

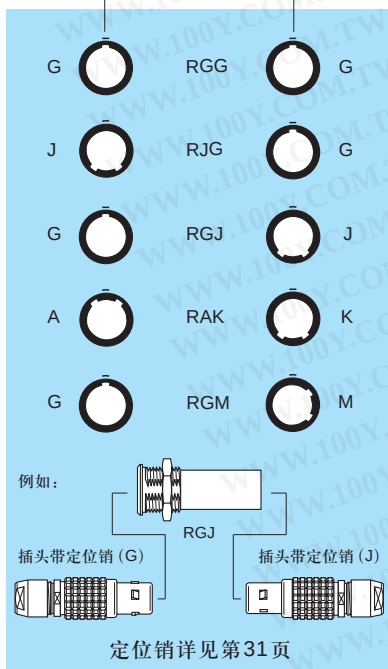
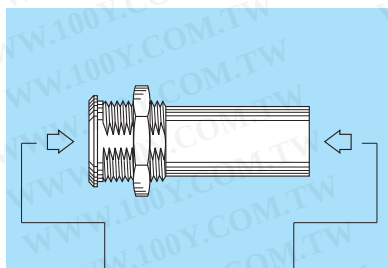
编号		尺寸 (mm)									
型号	系列	A	B	e	E	L	M	S1	S2	S4	P
PEG	3B	24	22	M18x1.0	5.0	56	4.5	16.5	14	20	12
PEG	4B	32	34	M25x1.0	12.5	73	5.0	23.5	20	27	20

P1 面板开口尺寸见第 152 页

M1 电缆组装见第 161 页

注：4B 系列法兰上带 O 形圈

固定式双通，螺母固定，法兰端为定位销 (G) 或定位销 (A ... L)，另一端为定位销 (J, K 和 M)

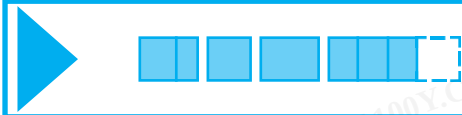


编号		针芯	尺寸 (mm)								
型号	系列	类型	A	B	e	E	L	M	S1	S3	
RGG ¹⁾	0B	母针芯 - 母针芯	12	13.8	M10x0.75	8.0	34	2.0	9.0	12	
RGG ²⁾	0B	母针芯 - 母针芯	12	13.8	M10x0.75	8.0	43	2.0	9.0	12	
RJG	0B	公针芯 - 母针芯	12	13.8	M10x0.75	8.0	34	2.0	9.0	12	
RGJ		母针芯 - 公针芯									
RAK		母针芯 - 公针芯									
RGM		母针芯 - 公针芯									
RGG ³⁾	1B	母针芯 - 母针芯	16	19.2	M14x1.00	8.5	47	2.5	12.5	17	
RJG	1B	公针芯 - 母针芯	16	19.2	M14x1.00	8.5	39	2.5	12.5	17	
RGJ		母针芯 - 公针芯									
RJG	2B	公针芯 - 母针芯	20	21.5	M16x1.00	12.0	44	4.0	15.0	19	
RGJ		母针芯 - 公针芯									
RGJ	3B	母针芯 - 公针芯	25	27.0	M20x1.00	32.0	53	4.0	18.5	24	
RGJ	4B	母针芯 - 公针芯	34	34.0	M25x1.00	50.0	65	4.0	23.5	30	

P4 面板开口尺寸见第 152 页

注：1) 只提供 2 芯类型。
2) 只提供 3 芯和 4 芯类型。
3) 只提供 3 芯类型。

对此固定双通，所提到的第一个针芯类型总是指法兰端的针芯类型。
可根据需要定制此类双通的其他系列，配其他的定位销。

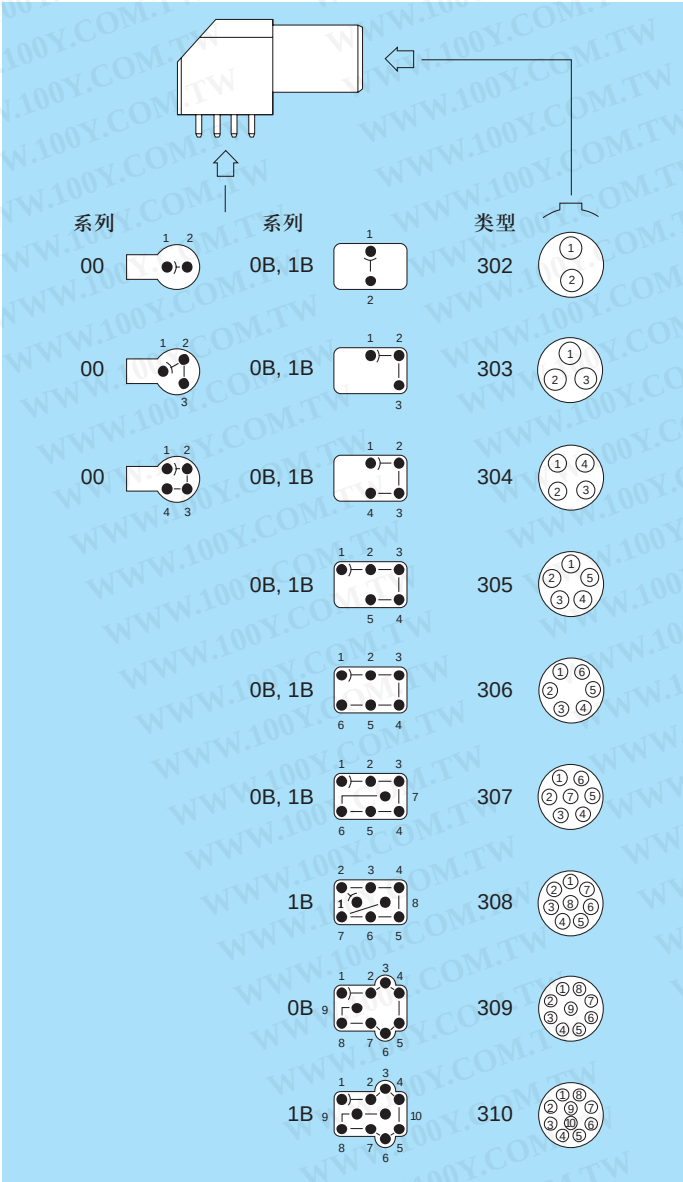


弯角式插座型号

勝特力材料 886-3-5753170
勝特力电子(上海) 86-21-34970699
勝特力电子(深圳) 86-755-83298787
Http://www.100y.com.tw

技术特性

类型



材料和表面处理

构件	材料	表面处理 (μm)		
		Cu	Ni	Au
外壳	PPS	-	-	-
	黄铜	0.5	3	-
金属部件	黄铜	0.5	3	-
接地环	青铜	0.5	3	-
绝缘体	PEEK	-	-	-
母针芯	青铜	0.5	3	1.5

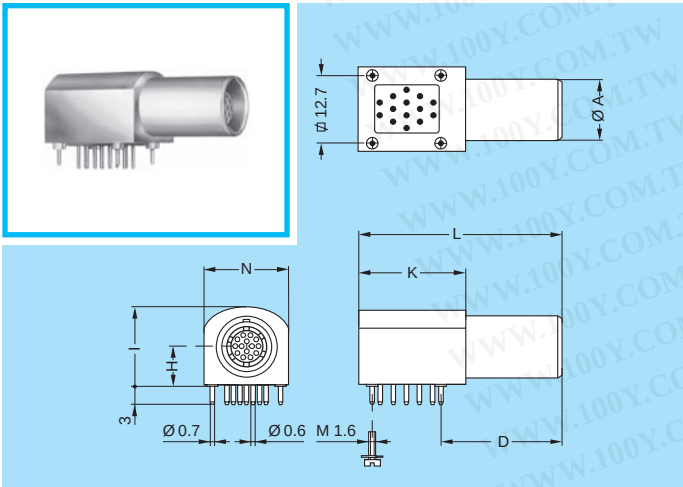
注：
表面处理标准如下：
- 镍 (Ni)：FS QQ-N-290A - 金 (Au)：ISO 4523

电气性能

型号	系列	类型	测试电压 (kV rms) ¹⁾ 针芯-针芯	测试电压 (kV rms) ¹⁾ 针芯-外壳	额定 电流 (A) ¹⁾
EPG-XBG	00	302-303-304	0.80	0.65	2.0
EPG-EXG	0B	302	1.30	1.05	4.5
EPG-EXG	0B	303	1.20	0.90	4.5
EPG-EXG	0B	304	0.85	0.70	4.5
EPG-EXG	0B	305	1.00	0.70	4.5
EPG-EXG	0B	306	0.85	0.65	2.5
EPG-EXG	0B	307	0.80	0.70	2.0
EPG-EXG	0B	309	0.60	0.50	1.5
EPG-EXG	1B	302	1.50	1.35	4.5
EPG-EXG	1B	303	1.30	1.55	4.5
EPG-EXG	1B	304	1.35	1.45	4.5
EPG-EXG	1B	305	1.25	1.15	4.5
EPG-EXG	1B	306	1.05	1.20	4.5
EPG-EXG	1B	307	0.95	1.05	2.0
EPG-EXG	1B	308	0.95	1.15	2.0
EPG-EXG	1B	310	0.90	1.50	1.5
EPG	1B	314	0.80	1.20	1.0

注：
1) 见第178页计算方法、注意事项和推荐标准。

EPG 适用于印制线路板的 90° 弯角式插座，
定位销 (G) 或定位销 (A...F) (焊接或螺丝固定)



编号	尺寸 mm					
	A	D	H	I	K	L
EPG.1B.314.NLN	11	21	7.7	14.3	19	36

P20 PCB 板钻孔参数见第158页

注：若用4个螺丝 (M1.6) 替代4个接地柱，需在型号最后加“S”。
(例如 EPG.1B.314.NLNS)



EPG 适用于印制线路板的 90°弯角式插座，
 定位销 (G) 或定位销 (A...F) (焊接或螺丝固定)

编号	尺寸 (mm)							
	A	D	H	I	K	L	N	R
EPG.00.302.HLN	6.8	11.5	3.5	7.0	8.7	19	7.1	5.08
EPG.00.303.HLN								
EPG.00.304.HLN								
EPG.0B.302.HLN								
EPG.0B.303.HLN	9.0	14.6	6.7	12.7	13.3	25	11.7	7.62
EPG.0B.304.HLN								
EPG.0B.305.HLN								
EPG.0B.306.HLN								
EPG.0B.307.HLN	11.0	16.6	7.5	14.0	13.3	27	12.6	7.62
EPG.1B.302.HLN								
EPG.1B.303.HLN								
EPG.1B.304.HLN								
EPG.1B.305.HLN								
EPG.1B.306.HLN								
EPG.1B.307.HLN								
EPG.1B.308.HLN								
EPG.1B.310.HLN								

P18 00 系列 PCB 板钻孔参数见第 158 页

P19 0B、1B 系列 PCB 板钻孔参数见第 158 页

注：0B 和 1B 系列，若用 4 个螺丝 (M1.6) 替代 4 个接地柱，需在型号最后加“S”。
 (例如：EPG.0B.307.HLNS)



EXG 适用于印制线路板的 90°弯角式插座，带两个螺母，
 定位销 (G) 或定位销 (A...F) (焊接或螺丝固定)
 (后面板安装)

XBG 适用于印制线路板的 90°弯角式插座，带固定螺母，
 定位销 (G) 或定位销 (A, B) (后面板安装)

编号	尺寸 (mm)													
	A	B	D	e	E	H	I	K	L	M	N	R	S3	
XBG.00.302.HLN	10	10.2	11.5	M7x0.5	2.1	3.5	7.0	8.7	19	2.5	7.1	5.08	9	
XBG.00.303.HLN														
XBG.00.304.HLN														
EXG.0B.302.HLN	12	12.4	14.6	M9x0.6	6.0	6.7	12.7	13.3	25	2.5	11.7	7.62	11	
EXG.0B.303.HLN														
EXG.0B.304.HLN														
EXG.0B.305.HLN														
EXG.0B.306.HLN														
EXG.0B.307.HLN														
EXG.0B.309.HLN														
EXG.1B.302.HLN	14	15.0	16.6	M11x0.5	7.5	7.5	14.0	13.3	27	3.5	12.6	7.62	13	
EXG.1B.303.HLN														
EXG.1B.304.HLN														
EXG.1B.305.HLN														
EXG.1B.306.HLN														
EXG.1B.307.HLN														
EXG.1B.308.HLN														
EXG.1B.310.HLN														

P2 00、0B 系列面板开口尺寸见第 152 页

P10 1B 系列面板开口尺寸见第 152 页

P18 00 系列 PCB 板钻孔参数见第 158 页

P19 0B、1B 系列 PCB 板钻孔参数见第 158 页

注：0B 和 1B 系列，若用 4 个螺丝 (M1.6) 替代 4 个接地柱，
 需在型号最后加“S”。(例如：EXG.0B.307.HLNS)



塑料外壳型号

此类连接器特别推荐用在要求最大电绝缘性（插合时）的应用环境。包括了锁定套筒和金属接地环在内的独特设计，能最大限度地保证 EMC 屏蔽效果。

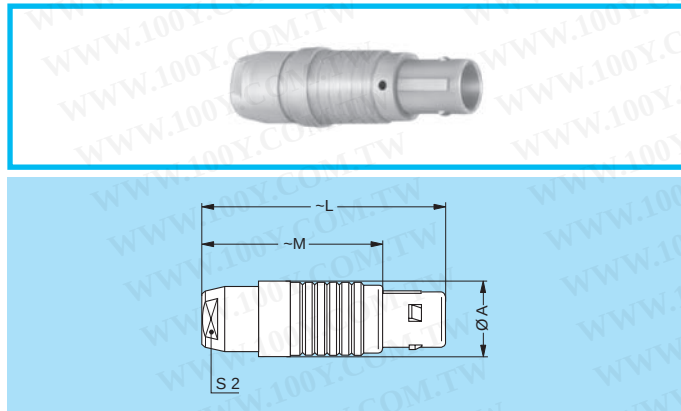
技术特性

机械性能和环境因素

特性	参数			标准
	PEEK	PSU	PPSU	
颜色	自然色（米色）	白色或灰色	奶油色	-
插拔次数	> 5000 次	> 5000 次	> 5000 次	IEC60512-5 试验 9a
湿度	在 60°C 时最高达 95%			-
温度范围	-50°C/+250°C	-50°C/+150°C	-50°C/+180°C	-
耐消毒性能 ¹⁾	> 200 次	~ 20 次	> 100 次	IEC60601-1 § 44.7
耐溶剂腐蚀性能	很好	一般	好	-

勝特力材料 886-3-5753170
勝特力电子(上海) 86-21-34970699
勝特力电子(深圳) 86-755-83298787
[Http://www.100y.com.tw](http://www.100y.com.tw)

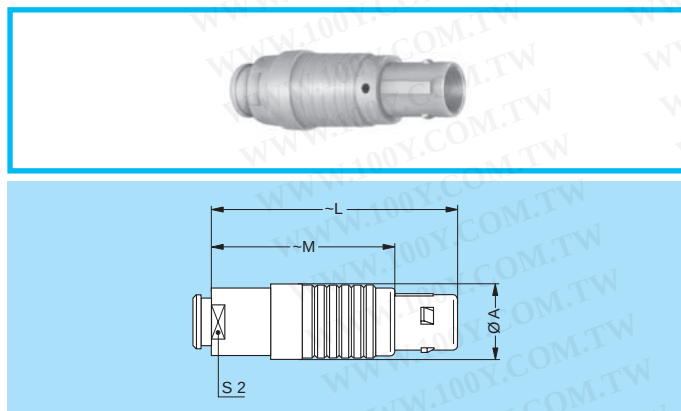
注：¹⁾ 蒸汽杀菌



FGG 直式插头，定位销（G 或 J），电缆线夹，PEEK 外壳

编号		尺寸 (mm)			
型号	系列	A	L	M	S2
FGG	1B	13.5	43.0	32.0	10
FGG	3B	19.0	62.0	47.0	15
FGG	4B	26.0	78.5	60.5	20

M1 电缆组装见第 161 页



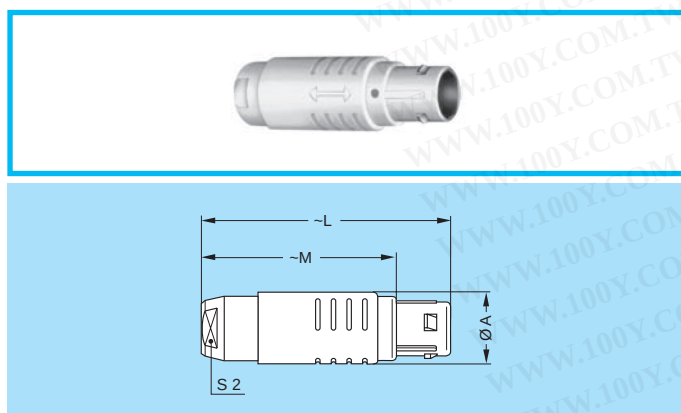
FGG 直式插头，定位销（G 或 J），电缆线夹，PEEK 外壳和带护套型的尾盖¹⁾

编号		尺寸 (mm)				供货范围
型号	系列	A	L	M	S2	
FGG	1B	13.5	42.2	31.2	10	能提供所有的线夹类型
FGG	4B	26.0	83.2	65.2	20	仅提供 M82 或更大的线夹

M1 电缆组装见第 161 页

注：¹⁾ 订购时，在编号最后加一字母“Z”。

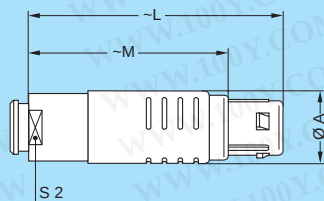
护套需另外订购（见第 141 页）。



FGY 直式插头，定位销（Y），电缆线夹，PSU 或 PPSU 外壳

编号		尺寸 (mm)			
型号	系列	A	L	M	S2
FGY	2B	16.5	50.5	39.5	13
FGY	3B	19.0	58.0	43.0	15
FGY	4B	26.0	76.2	58.2	20

M1 电缆组装见第 161 页



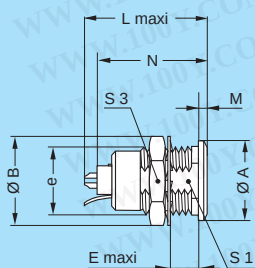
FGY 直式插头, 定位销 (Y), 电缆线夹,
PSU 或 PPSU 外壳, 带护套型的尾盖¹⁾

编号		尺寸 (mm)				供货范围
型号	系列	A	L	M	S2	
FGY	2B	16.5	49.5	38.5	13	仅提供 M42 或更大的线夹
FGY	3B	19.0	56.5	41.5	15	仅提供 D62 或更大的线夹
FGY	4B	26.0	74.4	56.4	20	仅提供 M82 或更大的线夹

M1 电缆组装见第 161 页

注: ¹⁾ 订购时, 在编号最后加一字母“Z”。

护套需另外订购 (见第 141 页)。

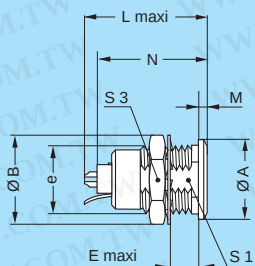


ENG 固定式插座带接地脚, 螺母固定, 定位销 (G 或 J),
PEEK 外壳

编号		尺寸 (mm)								
型号	系列	A	B	e	E	L	M	N ¹⁾	S1	S3
ENG	1B	14	15.8	M12x1.0	7.5	23.0	1.5	21.1	10.5	14
ENG	3B	22	25.0	M18x1.0	11.5	30.7	2.0	28.1	16.5	22
ENG	4B	28	34.0	M25x1.0	12.0	35.7	2.5	32.6	23.5	30

P1 面板开口尺寸见第 152 页

注: ¹⁾ 压接针芯时的最大长度。



ENY 固定式插座带接地脚, 螺母固定, 定位销 (Y),
PSU 或 PPSU 外壳

编号		尺寸 (mm)								
型号	系列	A	B	e	E	L	M	N ¹⁾	S1	S3
ENY	2B	18	19.2	M15x1.0	8.5	26.7	1.8	24.6	13.5	17
ENY	3B	22	25.0	M18x1.0	11.5	30.7	2.0	28.1	16.5	22
ENY	4B	28	34.0	M25x1.0	12.0	35.7	2.5	32.6	23.5	30

P1 面板开口尺寸见第 152 页

注: ¹⁾ 压接针芯时的最大长度

注: 如其它型号需配塑料外壳, 可根据要求生产。

水密或真空密封型号

此类插头、插座和双通型号可使其使用设备达到 IP68 的防护等级 (按 IEC 60529 标准)。他们与同系列的插头完全兼容。被广泛应用于手提无线设备、军工、实验设备和航空领域等。

此类型号是在产品编号最后加一个字母“P”以示区别。

此类型号大多数都有真空密封型。若是真空密封型号,需在字母“P”后再多加一个字母“V”。(需要的话,可提供检验报告)

此类型号的密封材料为环氧树脂。

技术特性

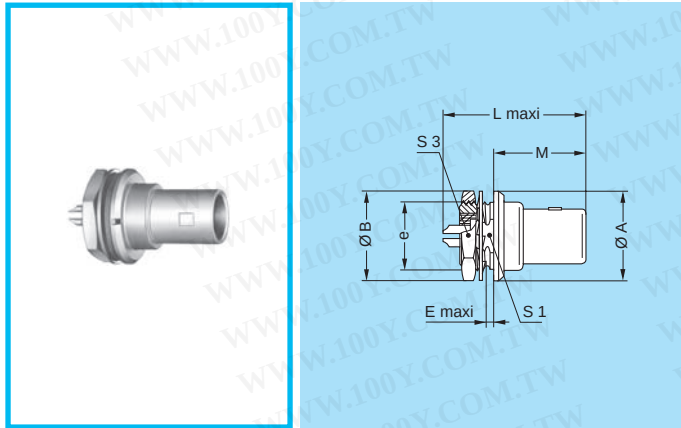
机械性能和环境因素

特性	参数	标准
插拔次数	> 5000 次	IEC60512-5 试验 9a
湿度	在 60°C 时最高达 95%	
温度范围 (00 到 1B)	-20°C, +100°C	
温度范围 (2B 到 5B)	-20°C, +80°C	
盐雾腐蚀试验	> 144h	IEC60512-6 试验 11f
环境实验	20/80/21	IEC60068-1
泄漏率 (He) ¹⁾	< 10 ⁻⁷ mbar.l.s ⁻¹	IEC60512-7 试验 14b

注: ¹⁾ 仅适用于真空密封型

特性	参数	标准
最大工作压强 ²⁾	00	60 bars
	0B	60 bars
	1B	60 bars
	2B	40 bars
	3B	30 bars
	4B	15 bars
	5B	5 bars

注: ²⁾ 此参数对应的是组装后的插座能承受的最大压强

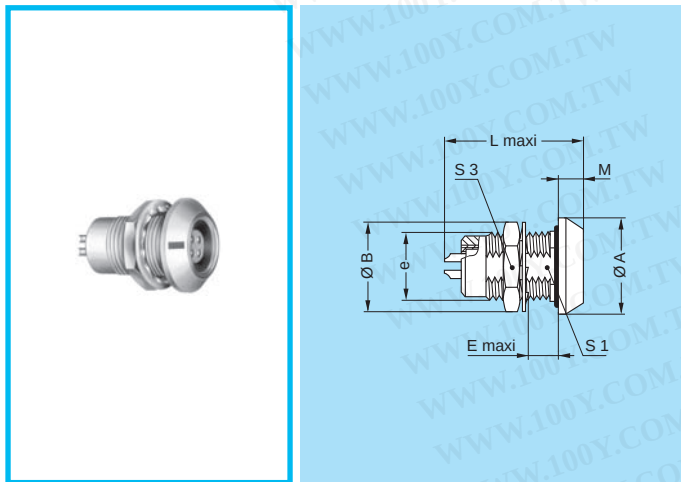


YHG 固定式插头, 螺母固定, 不带锁定装置, 定位销 (G) 或定位销 (A ... M)

编号		尺寸 (mm)							
型号	系列	A	B	e	E	L	M	S1	S3
YHG	0B	13.0	12.4	M9x0.6	2.4	24.1	14.2	8.2	11
YHG	1B	16.0	15.8	M12x1.0	3.9	28.0	16.2	10.2	14
YHG	2B	19.0	19.2	M15x1.0	5.5	33.1	17.8	13.5	17
YHG	3B	22.0	25.0	M18x1.0	5.1	38.2	22.2	16.5	22

P9 面板开口尺寸见第 152 页

注: 此型号法兰后面没有 O 形圈, 故只能保证 IP61 防护等级。因此, 它不是真空密封型。只有与 HHG 和 HCG 插座插合时才能防水。

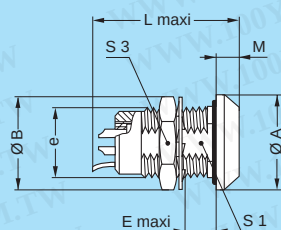


HGG 固定式插座, 螺母固定, 定位销 (G) 或定位销 (A ... M 和 R), 水密或真空密封

编号		尺寸 (mm)							
型号	系列	A	B	e	E	L	M	S1	S3
HGG	00	11	10.2	M7x0.5	8.0	18.0	1.5	-	9
HGG	0B	13	12.4	M9x0.6	7.0	22.1	3.0	8.2	11
HGG	1B	18	15.8	M12x1.0	7.0	26.6	4.5	10.5	14
HGG	2B	20	19.2	M15x1.0	8.0	31.6	4.0	13.5	17
HGG	3B	25	25.0	M18x1.0	11.5	36.1	4.0	16.5	22
HGG	4B	34	34.0	M25x1.0	11.0	43.1	4.0	23.5	30
HGG	5B	45	40.0	M35x1.0	11.0	53.6	5.0	33.5	-

P9 面板开口尺寸见第 152 页

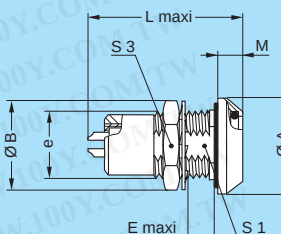
注: 5B 系列出厂时配有锥形垫圈和圆螺母。



HNG 固定式插座, 螺母固定, 带接地脚, 定位销(G) 或定位销(A...M), 水密或真空密封

编号		尺寸 (mm)							
型号	系列	A	B	e	E	L	M	S1	S3
HNG	0B	13	12.4	M9x0.6	7	20.2	3	8.2	11

P9 面板开口尺寸见第 152 页

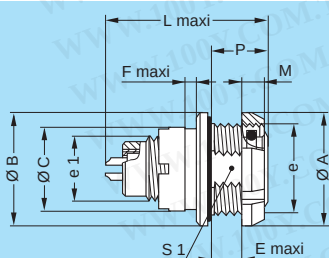


HHG 固定式插座, 螺母固定, 定位销(G) 或定位销(A...M), 水密或真空密封 (插合时防水)

编号		尺寸 (mm)							
型号	系列	A	B	e	E	L	M	S1	S3
HHG	0B	13	12.4	M9x0.6	7.0	23.2	4.8	8.2	11
HHG	1B	18	15.8	M12x1.0	7.0	30.3	5.2	10.5	14
HHG	2B	22	19.2	M15x1.0	8.0	35.6	6.0	13.5	17
HHG	3B	25	25.0	M18x1.0	11.5	41.3	7.2	16.5	22

P9 面板开口尺寸见第 152 页

注: 当与 FGG 或类似插头插合时, 此型号能够防水 (IP66)

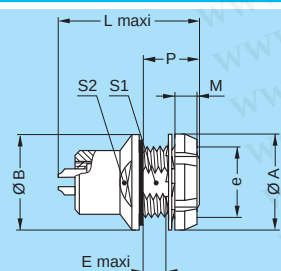


HCG 固定式插座, 螺母固定, 定位销(G) 或定位销(A...M), 水密或真空密封 (插合时防水) (后面板安装)

编号		尺寸 (mm)										
型号	系列	A	B	C	e	e1	E	F	L	M	P	S1
HCG	0B	18	18	12.0	M14x1.0	M9x0.6	3.9	1.0	23.2	3.5	7.5	12.5
HCG	1B	20	20	14.5	M16x1.0	M12x1.0	6.2	2.0	30.3	3.5	10.0	14.5
HCG	2B	24	24	17.5	M19x1.0	M14x1.0	6.7	1.5	35.6	3.5	11.3	17.0

P3 面板开口尺寸见第 152 页

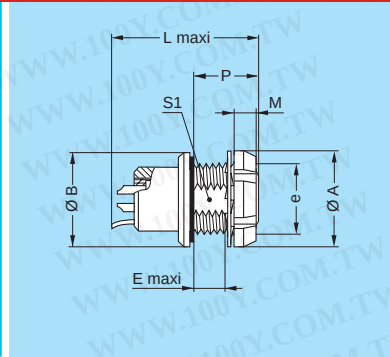
注: 当与 FGG 或类似插头插合时, 此型号能够防水 (IP66)



HEG 固定式插座, 螺母固定, 定位销(G) 或定位销(A...M), 水密或真空密封 (后面板安装)

编号		尺寸 (mm)								
型号	系列	A	B	e	E	L	M	P	S1	S2
HEG	00	10	11	M7x0.5	2.5	18.2	2.5	6.0	6.3	-
HEG	0B	12	13	M9x0.6	5.5	20.2	2.5	9.0	8.2	-
HEG	1B	16	18	M12x1.0	5.5	26.6	3.5	11.0	10.5	-
HEG	2B	20	20	M15x1.0	5.5	31.6	3.5	9.6	13.5	15

P9 面板开口尺寸见第 152 页



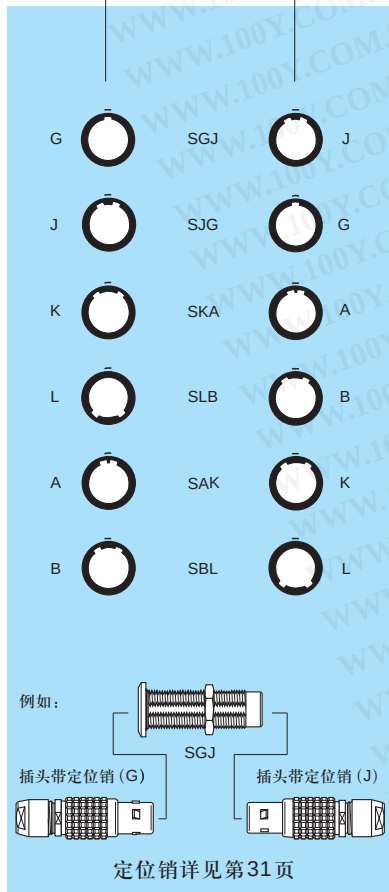
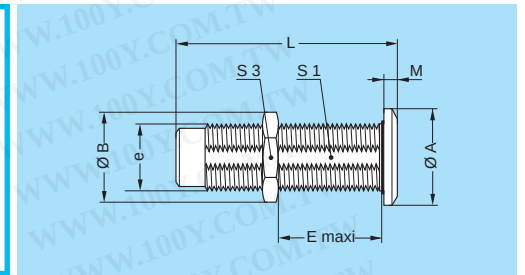
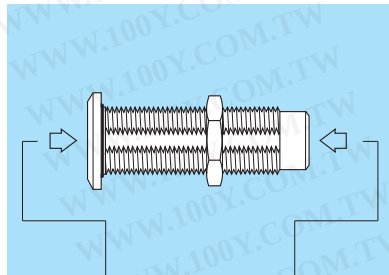
HMG 固定式插座带接地脚，螺母固定，定位销(G)或定位销(A...M)，水密或真空密封(后面板安装)

编号		尺寸 (mm)							
型号	系列	A	B	e	E	L	M	P	S1
HMG	00	10	11	M7x0.5	2.5	18.0	2.5	6.0	6.3
HMG	0B	12	13	M9x0.6	5.5	20.2	2.5	9.0	8.2
HMG	1B	16	18	M12x1.0	5.5	26.6	3.5	11.0	10.5
HMG	2B ¹⁾	20	20	M15x1.0	5.5	31.6	3.5	9.6	13.5
HMG	3B	24	25	M18x1.0	7.5	36.1	4.5	14.0	16.5

P9 面板开口尺寸见第 152 页

注: ¹⁾ 2B 系列表面设计有别于其他设计。
3B 系列出厂时配有圆锥形螺母。

S... 固定式双通，螺母固定，法兰端为定位销(G)或定位销(A, B, J, K 和 L)，另一端为定位销(G)或定位销(A, B, J, K 和 L)，水密或真空密封



编号		针芯	尺寸 (mm)							
型号	系列	类型	A	B	e	E	L	M	S1	S3
SGJ	0B	母针芯 - 公针芯	14	13.8	M10x0.75	17	34	2.0	9.0	12
SJG		公针芯 - 母针芯								
SGJ	1B	母针芯 - 公针芯	17	15.8	M12x1.00	28	39	2.5	10.5	14
SJG		公针芯 - 母针芯								
SGJ	2B	母针芯 - 公针芯	20	21.5	M16x1.00	25	44	4.0	15.0	19
SJG		公针芯 - 母针芯								
SGJ	3B	母针芯 - 公针芯	25	27.0	M20x1.00	30	53	4.0	18.5	24
SJG		公针芯 - 母针芯								
SAK		母针芯 - 公针芯								
SBL		母针芯 - 公针芯								
SAK	4B	母针芯 - 公针芯	34	34.0	M25x1.00	50	65	4.0	23.5	30
SBL		母针芯 - 公针芯								
SGJ		母针芯 - 公针芯								
SJG		公针芯 - 母针芯								
SGJ	5B	母针芯 - 公针芯	45	40.0	M35x1.00	58	80	5.0	33.5	-
SJG		公针芯 - 母针芯								
SAK		母针芯 - 母针芯								
SLB		公针芯 - 母针芯								
SAK		母针芯 - 母针芯								
SBL		母针芯 - 公针芯								

P4 面板开口尺寸见第 152 页

P9 1B 系列面板开口尺寸见第 152 页

注: 对此固定双通，所提到的第一个针芯类型总是指法兰端的针芯类型。
可根据需要定制此类双通的其他系列，配其他的定位销。
5B 系列出厂时配有圆螺母。

桥式连接器型号

技术特性

机械性能和环境因素

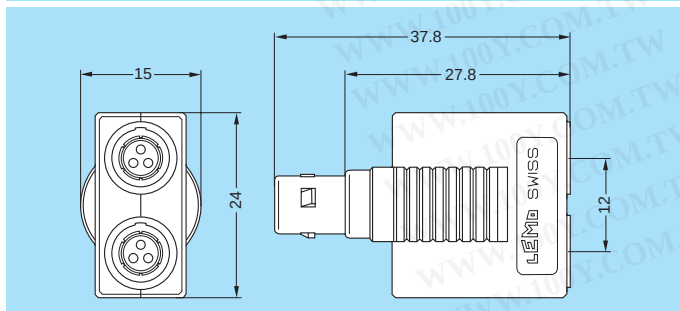
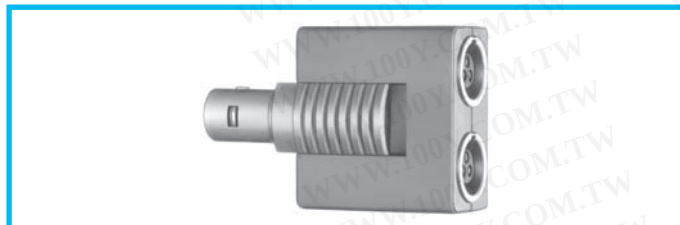
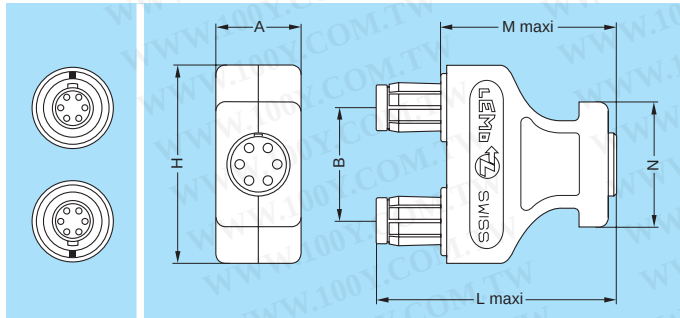
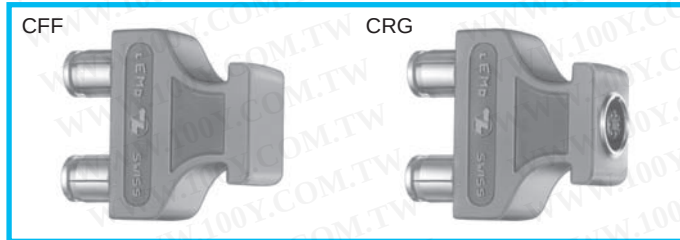
特性	参数	标准
插拔次数	> 1000 次	IEC60512-5 试验 9a
工作温度	最高 90°C	

材料和表面处理

构件	材料	表面处理 (μm)			
		Cu	Ni	Cr	Au
塑料外壳	聚酰胺	-	-	-	-
金属部件	黄铜	0.5	3	-	-
	黄铜	0.5	3	0.3	-
绝缘体	PEEK	-	-	-	-
公针芯	黄铜	0.5	3	-	1.0
母针芯	青铜	0.5	3	-	1.5

注：表面处理标准如下：

- 镍 (Ni)：FS QQ-N-290A - 铬 (Cr)：FS QQ-C-320B
- 金 (Au)：ISO 4523



电气性能

特性	参数	标准
接触电阻	< 6 mΩ	IEC60512-2 试验 2a

编号	系列	音频 单声道	音频 立体声	测试 电压 ¹⁾ (kV rms)	额定 电流 (A)
CFF.0B.302.PLCG	0B	●	-	1.05	4
CRG.0B.302.PLEG	0B	●	-	1.05	4
CFF.0B.303.PLCG	0B	●	-	0.80	4
CRG.0B.303.PLEG	0B	●	-	0.80	4
CRG.0B.306.PLEG	0B	-	●	0.40	2
CFF.1B.303.PLCG	1B	●	-	1.25	5
CRG.1B.303.PLEG	1B	●	-	1.25	5
CFF.1B.306.PLCG	1B	-	●	0.80	3
CRG.1B.306.PLEG	1B	-	●	0.80	3

注：外壳型号的最后一个字母表示外壳的颜色。例如 G (标准) 是灰色。若需其它颜色，选择相应的颜色字母替代该字母即可 (见 54 页表)。

1) 见第 178 页计算方法、注意事项和推荐标准。

2) 最低测量值；针芯对针芯或针芯对外壳。

CFF 桥式插头，带两个没有锁定装置的插头

CRG 桥式插头，包括两个没有锁定装置的插头和一个监控输出插座，定位销 (G) 或定位销 (A ... M)

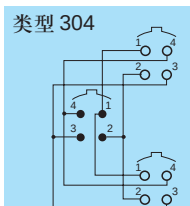
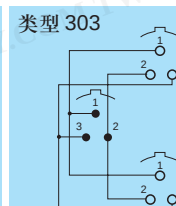
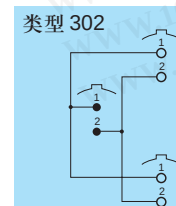
编号		尺寸					
型号	系列	A	B	H	L	M	N
CFF-CRG	0B	13.5	14	27.5	37.2	27.2	22.5
CFF-CRG	1B	15.0	20	35.0	42.0	31.0	22.0

注：为了使用户易于辨识和编码，桥式插头外壳、双面垫圈和护套均提供了 9 种颜色以供选择。

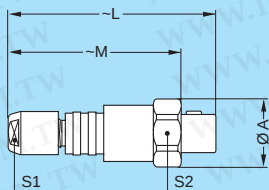
FTG 直式插头，定位销 (G) 和两个平行插座

编号	针芯 数量	测试 电压 ¹⁾ (kV rms)	额定 电流 (A)
FTG.0B.302.PLFG	2	1.05	4
FTG.0B.303.PLFG	3	0.80	4
FTG.0B.304.PLFG	4	0.80	3

Note:
1) 见第 178 页计算方法、注意事项和推荐标准。



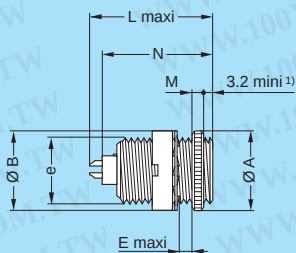
螺纹锁定型号



FVG 直式插头，定位销(G)或定位销(B)，电缆线夹

编号		尺寸 (mm)				
型号	系列	A	L	M	S1	S2
FVG	00	9	28.5	24	5	8

注：订购时选择带护套型的尾盖可以获得IP64的防护等级。

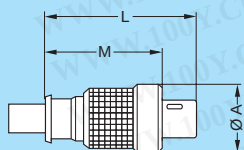


ESG 固定式插座，带两个圆型螺母，定位销(G)或定位销(B)，长螺纹外壳(后面板安装)

编号		尺寸 (mm)						
型号	系列	A	B	e	E	L	M	N
ESG	00	9.5	9	M7x0.5	4.2	15.5	2	13.7

P2 面板开口尺寸见第152页

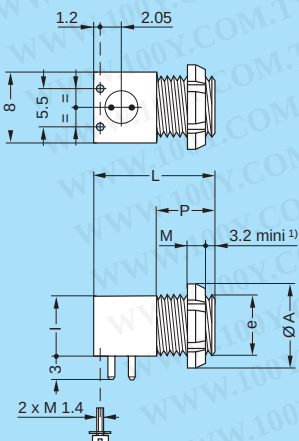
注：¹⁾ 保证插合所需螺纹的最小有效长度。



FVB 直式插头，定位销(B)，短外壳，提供特殊的电缆压接方式并能固定护套

编号		尺寸 (mm)		
型号	系列	A	L	M
FVB	00	9	20	15.4

注：组装后加装特殊护套 GMF.00.018.DI (护套需另外订购)。



XRB 适用于印制线路板的90°弯角式插座，定位销(B)，短外壳带螺母，螺纹固定(后面板安装)

编号		尺寸 (mm)					
型号	系列	A	e	I	L	M	P
XRB	00	10	M7x0.5	7	14	2.5	7

P2 面板开口尺寸见第152页

P18 PCB板钻孔参数见第158页 (仅适用于针芯)

注：¹⁾ 保证插合所需螺纹的最小有效长度。

定位销和极性定位销组合

B 系列连接器外壳型号由三个字母组成，最后一个字母表示定位销位置和针芯类型（公针芯或母针芯）。

插座正视图		系列					系列					针芯类型		注	
编号	定位销数量	角度	00	0B	1B	编号	定位销数量	角度	2B	3B	4B	5B	插头		插座
	5	α	-	-	-	R	5	α	-	-	-	95°	公针芯	母针芯	●
		β	-	-	-			β	-	-	-	115°			
		γ	-	-	-			γ	-	-	-	20°			
		δ	-	-	-			δ	-	-	-	30°			

1) 仅适用于型号FGY和ENY。

- 常规型号, 首先考虑选择
- 特殊型号, 有特殊需求时选择

K 系列

勝特力材料 886-3-5753170
 勝特力电子(上海) 86-21-34970699
 勝特力电子(深圳) 86-755-83298787
[Http://www.100y.com.tw](http://www.100y.com.tw)

K 系列连接器专为室外应用而设计。

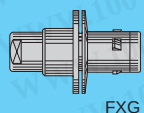
它们包括一个内套筒和两个密封圈以防止固体或液体渗透进插头、浮动插座、固定插座或双通的外壳。该系列的所有型号插合时都防水，并且当与相应的电缆正确组装后能达到 IP68 (至少为 IP66) 的保护等级 (按 IEC60529 标准)。

K 系列与 B 系列连接器有着同样的绝缘体，其主要特征为：

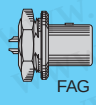
- 安全的插拔自锁系统
- 多芯类型 2-64 芯
- 定位销系统 (<G> 为标准定位销) 用于连接器对位
- 360° 屏蔽提供全方位 EMC 防护 (抗电磁干扰)
- 坚固外壳设计适用于极度恶劣的工作环境
- 防水连接 (IP68/IP66)
- 焊接、压接和印制板接针芯 (直式或弯角式)
- 多种定位销选择可避免相似连接器之间的混淆
- 高密度安装，节约空间

金属外壳型号 (第 34 页)

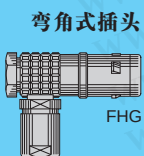
固定式插头



FXG

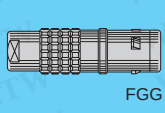


FAG

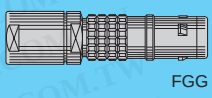


FHG

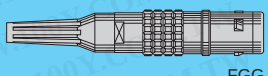
直式插头



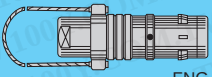
FGG



FGG

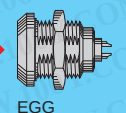


FGG

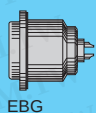


FNG

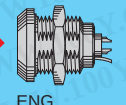
固定式插座



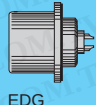
EGG



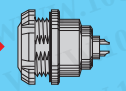
EBG



ENG



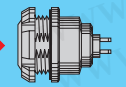
EDG



EEG



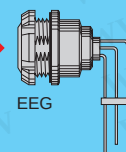
EHG



EEG

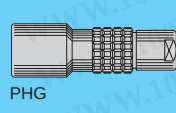


EVG

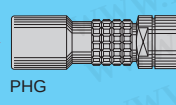


EEG

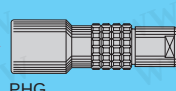
浮动式插座



PHG

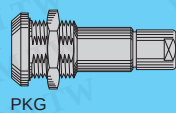


PHG

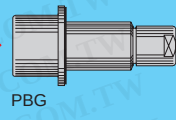


PHG

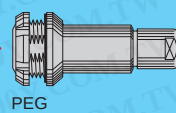
固定式插座



PKG

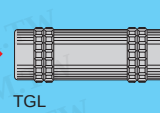


PBG

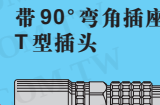


PEG

浮动式双通



TGL

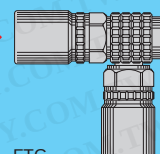


TGL



FTG

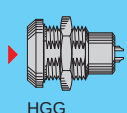
带 90° 弯角插座的 T 型插头



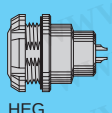
FTG

水密或真空密封型号 (第 41 页)

固定式插座

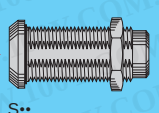


HGG



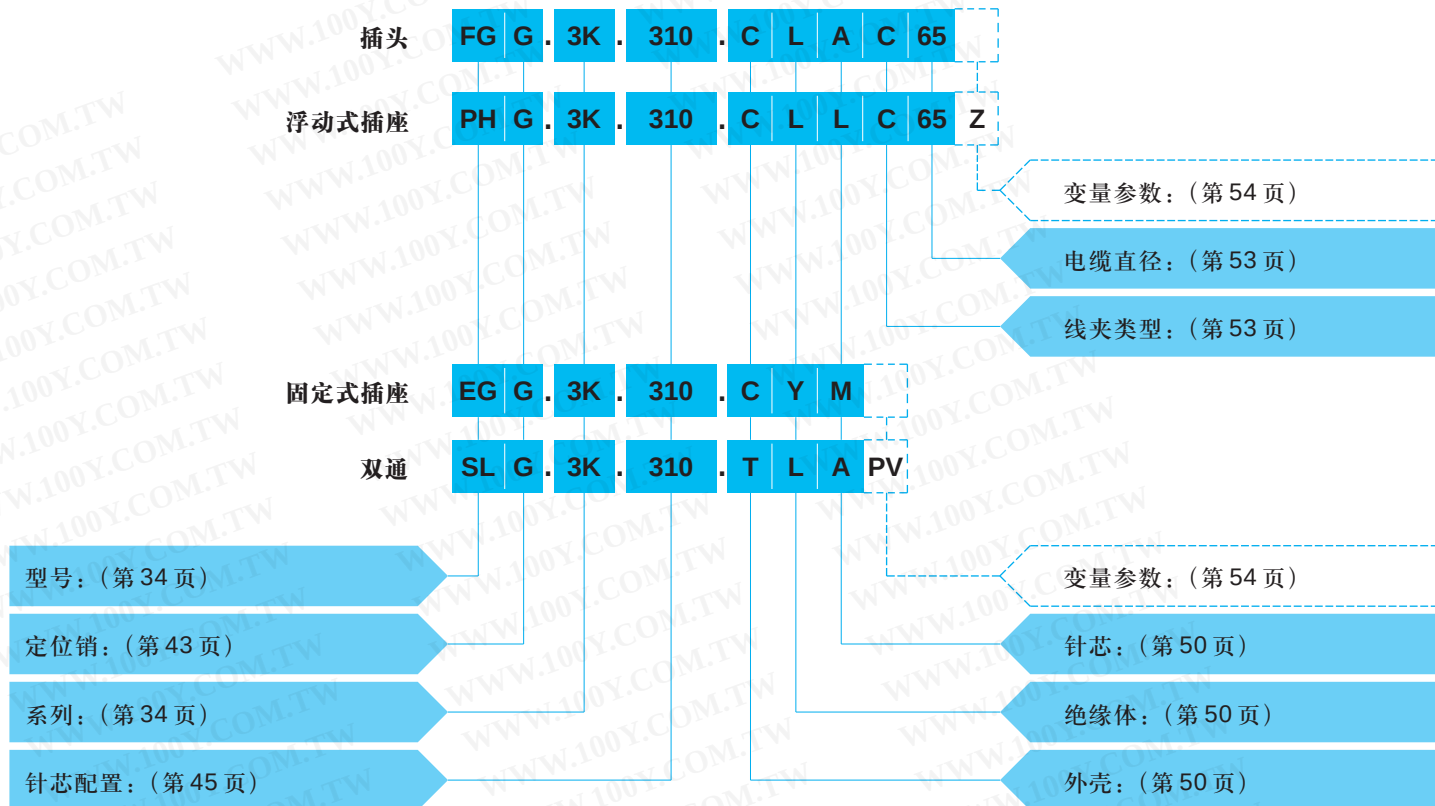
HEG

固定式双通



S**

产品编号规则



产品编号举例

带线夹的直式插头：

FGG.3K.310.CLAC65 = 直式插头，定位销 (G)，带线夹，3K 系列，多芯类型，10 芯，黄铜镀铬外壳，PEEK 绝缘体，焊接型公针芯，适用于外径 6.5mm 电缆的 C 型线夹

浮动式插座：

PHG.3K.310.CLLC65Z = 浮动式插座，定位销 (G)，带线夹，3K 系列，多芯类型，10 芯，黄铜镀铬外壳，PEEK 绝缘体，焊接型母针芯，适用于外径 6.5mm 电缆的 C 型线夹，带护套型号的尾盖

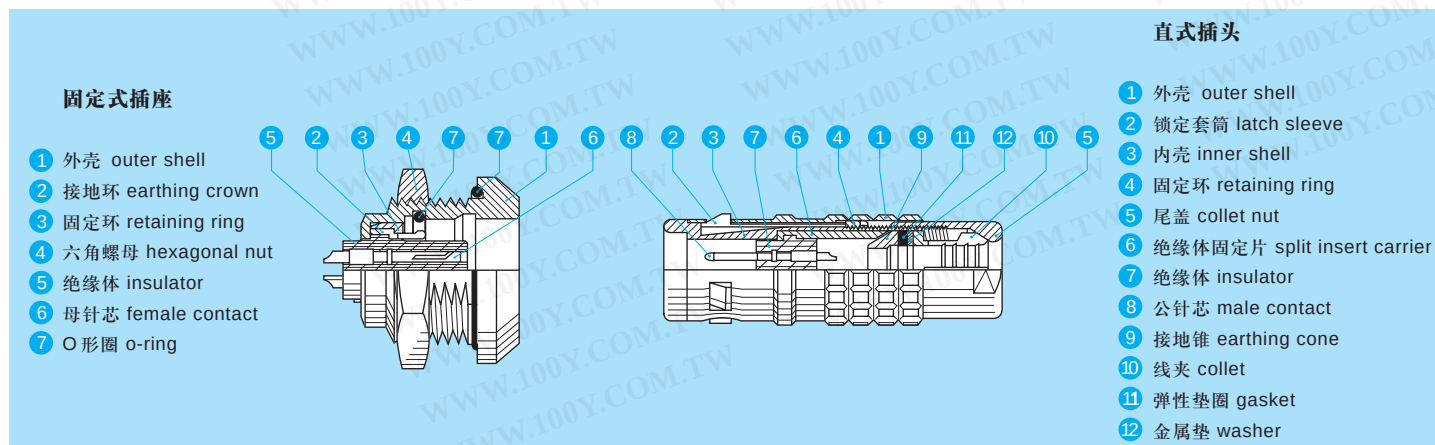
固定式插座：

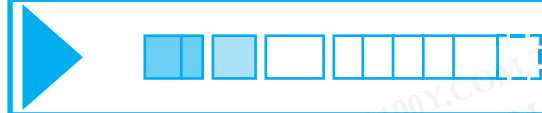
EGG.3K.310.CYM = 固定式插座，螺母固定，定位销 (G)，3K 系列，多芯类型，10 芯，黄铜镀铬外壳，PEEK 加长绝缘体，压接型母针芯

固定式双通：

SLG.3K.310.TLAPV = 固定式双通，螺母固定，法兰端带定位销 (L)，另一端带定位销 (G)，3K 系列，多芯类型，10 芯，不锈钢外壳，PEEK 绝缘体，公-母针芯，真空密封

产品剖面图





金属外壳型号

勝特力材料 886-3-5753170
勝特力电子(上海) 86-21-34970699
勝特力电子(深圳) 86-755-83298787
[Http://www.100y.com.tw](http://www.100y.com.tw)

技术特性

机械性能和环境因素

特性	参数	标准
插拔次数	> 5000 次	IEC60512-5 试验 9a
湿度	在 60°C 时最高达 95%	
温度范围 ¹⁾	-55°C, +200°C	
抗振动性能	10-2000Hz, 15g	IEC60512-4 试验 6d
抗冲击性能	100g, 6ms	IEC60512-4 试验 6c
盐雾腐蚀试验	> 144 h	IEC60512-6 试验 11f
防护等级 (插合时) ²⁾	IP 68 / IP 66	IEC60529
环境实验	50/175/21	IEC60068-1

电气性能

特性	参数	标准
屏蔽效果	在 10MHz 下	> 95 dB
	在 1GHz 下	> 80 dB
		IEC60169-1-3

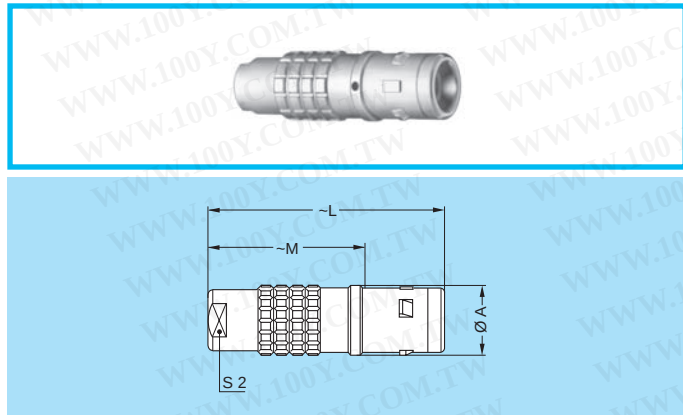
注:

以上数据是对外壳采用黄铜镀铬、绝缘体采用 PEEK 材料、带硅胶 O 形圈的 FGG 插头和 EGG 插座进行的各项试验得出。

详细的电气性能、材料和表面处理方法在第 171 页的《技术特性》章节中进行了介绍。

¹⁾ 对配有 FPM (Viton®) O 形圈的插座, 其最低工作温度为 -20°C。

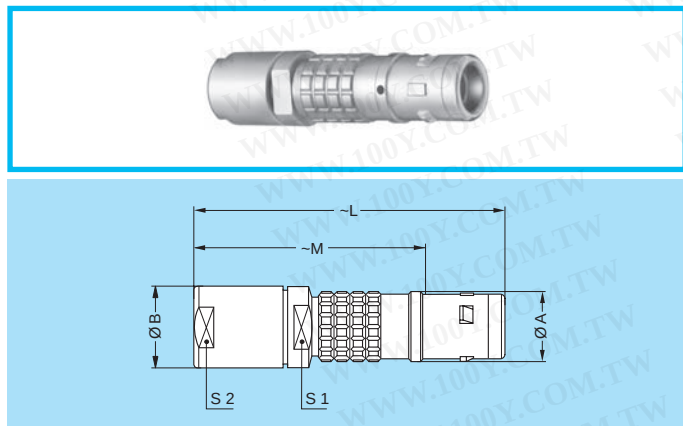
²⁾ 若电缆外形足够圆, 并且组装过程保证密封良好, 那么可以达到 IP68 防护等级。



FGG 直式插头, 定位销 (G) 或定位销 (A...F, L 和 R), 电缆线夹

编号		尺寸 (mm)			
型号	系列	A	L	M	S2
FGG	0K	11	34	23.0	8
FGG	1K	13	42	28.0	9
FGG	2K	16	52	36.0	12
FGG	3K	19	61	41.0	15
FGG	4K	25	71	50.5	19
FGG	5K	38	92	67.0	30

M1 电缆组装见第 162 页

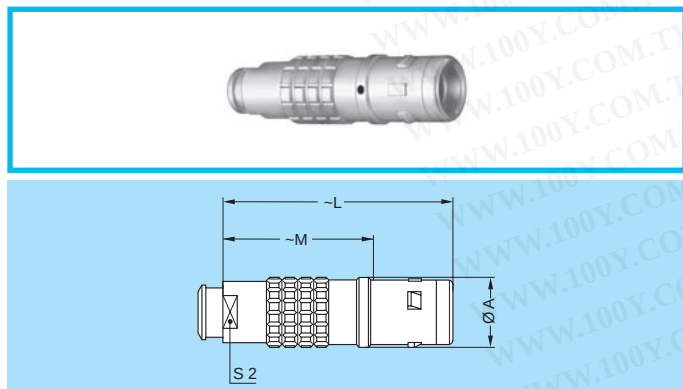


FGG 直式插头, 定位销 (G) 或定位销 (A...F, L 和 R), 电缆线夹和加大尺寸电缆线夹¹⁾

编号		尺寸 (mm)					
型号	系列	A	B	L	M	S1	S2
FGG	1K	13	14.5	60.0	46	12	12
FGG	2K	16	17.0	68.0	52	15	15
FGG	3K	19	22.0	85.0	65	19	19
FGG	4K	25	36.0	119.5	99	30	32

M2 电缆组装见第 163 页

注: ¹⁾ 对应 K 型线夹, 在该型号上用加大尺寸线夹使其能使用大一号外壳适用的电缆。(见第 53 页)



FGG 直式插头, 定位销 (G) 或定位销 (A...F, L 和 R), 电缆线夹和带护套型的尾盖¹⁾

编号		尺寸 (mm)			
型号	系列	A	L	M	S2
FGG	0K	11	34	23.0	7
FGG	1K	13	42	28.0	9
FGG	2K	16	52	36.0	12
FGG	3K	19	60	40.0	15
FGG	4K	25	71	50.5	19

M1

电缆组装
见第 162 页

注: ¹⁾ 订购时, 在编号最后加一字母“Z”。
护套需另外订购 (见第 141 页)。

FNG 直式插头, 定位销 (G) 或定位销 (A...F 和 L), 电缆线夹和解锁拉绳

编号		尺寸 (mm)						
型号	系列	A	B	L	M	N	S2	
FNG	2K	16	23.6	52	36.0	160	12	
FNG	4K	25	35.2	71	50.5	230	19	

M1 电缆组装见第 162 页

注: 拉绳材料: 不锈钢索加聚酰胺外皮。

FXG 带圆法兰的固定式插头, 定位销 (G) 或定位销 (A...F, L 和 R), 螺丝固定

编号		尺寸 (mm)							
型号	系列	A	B	G	H	L	M	P	S2
FXG	3K	38	22.5	3.4	20.6	61	10.0	30.0	15
FXG	4K	47	28.5	3.4	27.0	71	11.0	32.0	19
FXG	5K	65	42.5	4.4	38.0	100	12.5	38.5	30

P6 面板开口尺寸见第 153 页

注: 此型号法兰后面没有 O 形圈, 只能使其使用设备达到 IP50 防护等级。没有电缆线夹。

FAG 固定式插头, 螺母固定, 不带锁定装置, 定位销 (G) 或定位销 (A...F, L 和 R)

编号		尺寸 (mm)								
型号	系列	A	B	e	E	L	M	N ¹⁾	S1	S3
FAG	1K	20	21.5	M16x1.0	2.3	22.6	16.0	22.5	14.5	19
FAG	2K	25	27.0	M20x1.0	4.5	28.2	18.0	28.3	18.5	24
FAG	3K	31	34.0	M24x1.0	4.0	34.3	22.5	33.8	22.5	30
FAG	4K	37	40.5	M30x1.0	4.0	35.3	23.0	36.3	28.5	36
FAG	5K	55	54.0	M45x1.5	4.0	43.5	28.5	42.3	42.5	-

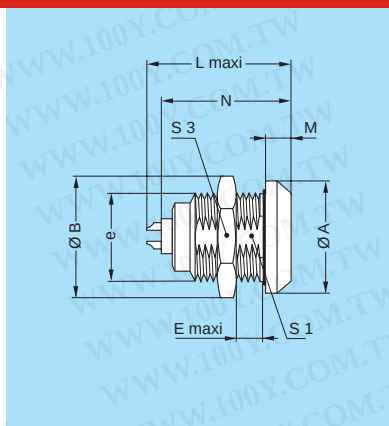
P1 面板开口尺寸见第 153 页

注: ¹⁾ 压接针芯时的最大长度。
5K 系列出厂时配有圆螺母。

FHG 90° 弯角式插头, 定位销 (G) 或定位销 (A...F, L 和 R), 电缆线夹

编号		尺寸 (mm)							
型号	系列	A	D	H	L	M	S1	S2	S3
FHG	0K	11.5	7.6	27	36	25.0	10	8	8
FHG	1K	14.0	8.8	33	43	29.0	12	9	10
FHG	2K	17.5	10.5	40	51	35.0	15	12	13
FHG	3K	21.0	11.5	47	60	40.0	18	15	15
FHG	4K	27.5	15.5	57	72	51.5	24	19	20

M3 电缆组装见第 162 页

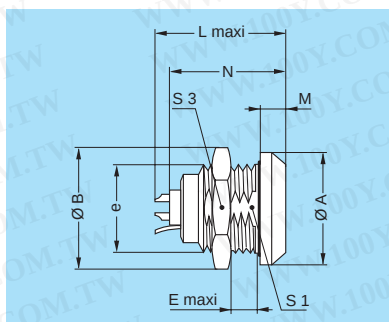


EGG 固定式插座, 螺母固定, 定位销(G) 或定位销(A...F, L和R)

编号		尺寸 (mm)								
型号	系列	A	B	e	E	L	M	N ¹⁾	S1	S3
EGG	0K	18	19.2	M14x1.0	6	21.7	4.0	20.1	12.5	17
EGG	1K	20	21.5	M16x1.0	9	27.0	4.5	25.1	14.5	19
EGG	2K	25	27.0	M20x1.0	9	30.7	5.0	28.6	18.5	24
EGG	3K	31	34.0	M24x1.0	11	36.2	6.0	33.6	22.5	30
EGG	4K	37	40.5	M30x1.0	9	40.2	6.5	38.6	28.5	36
EGG	5K	55	54.0	M45x1.5	10	47.5	9.0	43.6	42.5	-

P1 面板开口尺寸见第153页

注: ¹⁾ 压接针芯时的最大长度。
5K系列出厂时配有圆螺母。

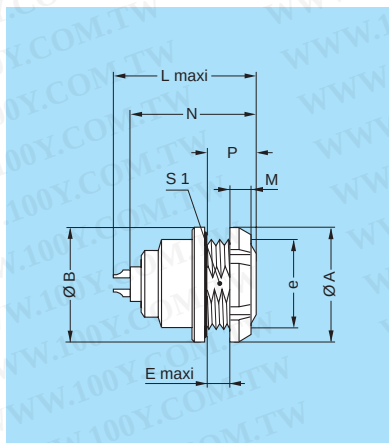


ENG 固定式插座, 螺母固定, 定位销(G) 或定位销(A...F, L和R)和接地脚

编号		尺寸 (mm)								
型号	系列	A	B	e	E	L	M	N ¹⁾	S1	S3
ENG	3K	31	34	M24x1.0	11.3	36.2	6	33.6	22.5	30

P1 面板开口尺寸见第153页

注: ¹⁾ 压接针芯时的最大长度

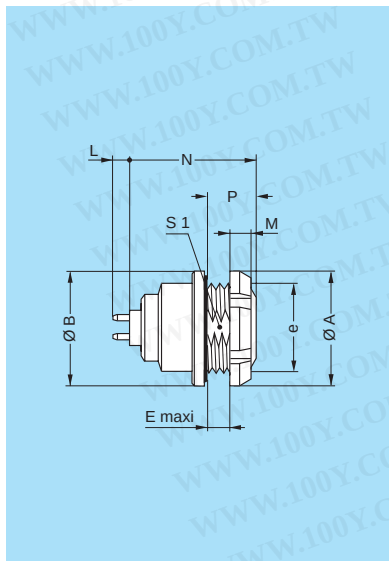


EEG 固定式插座, 螺母固定, 定位销(G) 或定位销(A...F, L和R) (后面板安装)

编号		尺寸 (mm)								
型号	系列	A	B	e	E	L	M	N ¹⁾	P	S1
EEG	0K	18.0	18	M14x1.0	3.4	21.7	3.5	20.1	7.0	12.5
EEG	1K	20.0	20	M16x1.0	6.2	27.0	3.5	25.1	10.0	14.5
EEG	2K	25.0	25	M20x1.0	5.0	30.7	3.5	28.6	10.0	18.5
EEG	3K	30.0	31	M24x1.0	7.5	36.2	4.5	33.6	12.0	22.5
EEG	4K	41.5	37	M30x1.0	6.0	40.2	7.0	38.6	13.5	28.5

P1 面板开口尺寸见第153页

注: ¹⁾ 压接针芯时的最大长度
3K和4K系列出厂时配有圆锥螺母。



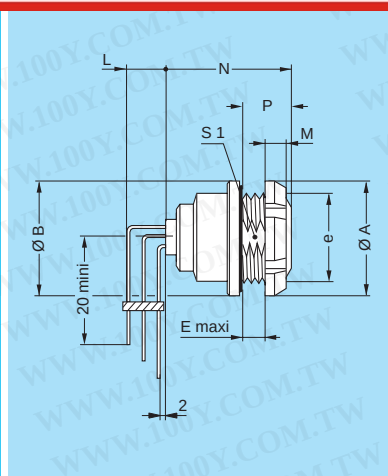
EEG 固定式插座, 螺母固定, 定位销(G) 或定位销(A...F和R)和适用于印制线路板的直针芯 (后面板安装)

编号		尺寸 (mm)								
型号	系列	A	B	e	E	M	N	P	S1	
EEG	0K	18.0	18	M14x1.0	3.4	3.5	17.6	7.0	12.5	
EEG	1K	20.0	20	M16x1.0	6.2	3.5	23.8	10.0	14.5	
EEG	2K	25.0	25	M20x1.0	5.0	3.5	25.8	10.0	18.5	
EEG	3K	30.0	31	M24x1.0	7.5	4.5	31.3	12.0	22.5	
EEG	4K	41.5	37	M30x1.0	6.0	7.0	34.3	13.5	28.5	

P1 面板开口尺寸见第153页

P15 PCB板钻孔参数见第154页

注: 此针芯类型适用于配母针芯的E●●插座。
长度“L”取决于针芯的数量, 见第156页的PCB板钻孔参数。
3K和4K系列出厂时配有圆锥螺母。



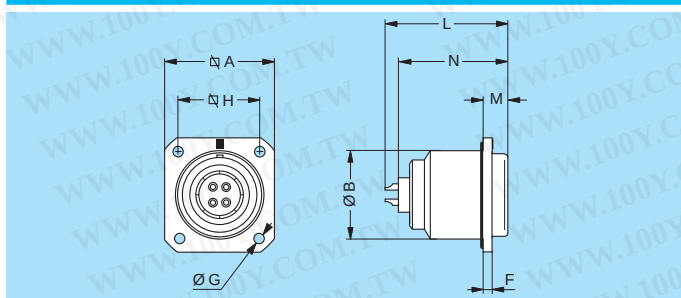
EEG 固定式插座，螺母固定，定位销(G)
 或定位销(A...F和R)，适用于印制线路板的
 90°弯角针芯（后面板安装）

编号		尺寸 (mm)							
型号	系列	A	B	e	E	M	N	P	S1
EEG	0K	18	18	M14x1.0	3.4	3.5	19.3	7	12.5
EEG	1K	20	20	M16x1.0	6.2	3.5	24.3	10	14.5
EEG	2K	25	25	M20x1.0	5.0	3.5	26.6	10	18.5
EEG	3K	30	31	M24x1.0	7.5	4.5	31.3	12	22.5

P1 面板开口尺寸见第153页

P17 PCB板钻孔参数见第157页

注：长度“L”取决于针芯的数量，见第157页的PCB板钻孔参数。
 3K系列出厂时配有圆锥螺母。

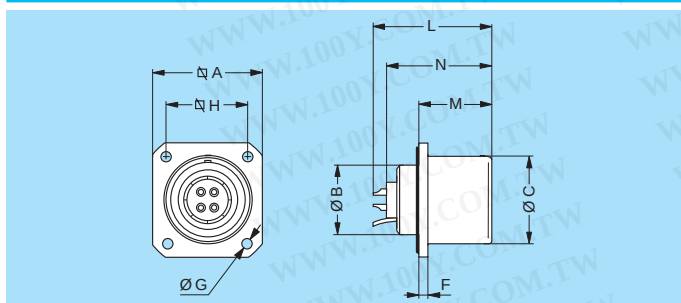


EBG 带方形法兰的固定式插座，定位销(G)
 或定位销(A...F, L和R)，螺丝固定

编号		尺寸 (mm)							
型号	系列	A	B	F	G	H	L	M	N ¹⁾
EBG	3K	29	23	3	3.4	23	36.2	6.0	32.6
EBG	4K	37	30	3	3.4	29	40.2	6.5	36.6
EBG	5K	54	45	4	4.4	44	47.5	8.0	42.1

P7 面板开口尺寸见第153页

注：¹⁾ 压接针芯时的最大长度

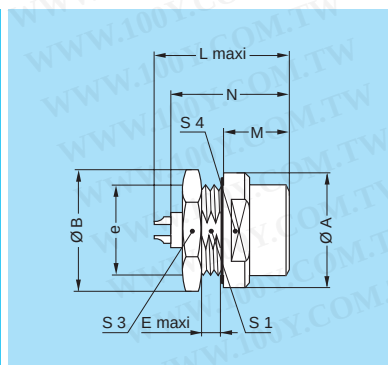


EDG 带方形法兰的固定式插座，定位销(G)
 或定位销(A...F, L和R)，凸出式外壳
 带接地脚，螺丝固定

编号		尺寸 (mm)								
型号	系列	A	B	C	F	G	H	L	M	N ¹⁾
EDG	3K	29	18	23	3	3.4	23	36.2	22.5	32.6

P7 面板开口尺寸见第153页

注：¹⁾ 压接针芯时的最大长度

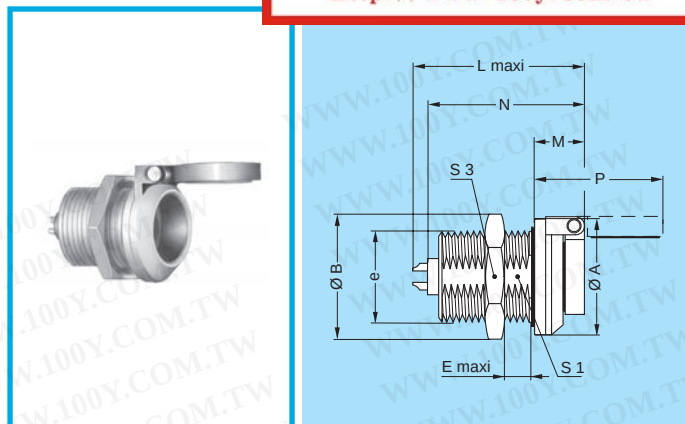


EHG 固定式插座，螺母固定，定位销(G)
 或定位销(A...F和L)，凸出式外壳

编号		尺寸 (mm)								
型号	系列	A	B	e	E	L	M	N ¹⁾	S1	S3 S4
EHG	0K	18	19.2	M14x1.0	1.5	21.7	10.5	20.1	12.5	17 15
EHG	1K	20	21.5	M16x1.0	1.5	27.0	15.5	25.1	14.5	19 17
EHG	2K	25	27.0	M20x1.0	1.5	30.7	17.0	27.1	18.5	24 20

P1 面板开口尺寸见第153页

注：¹⁾ 压接针芯时的最大长度

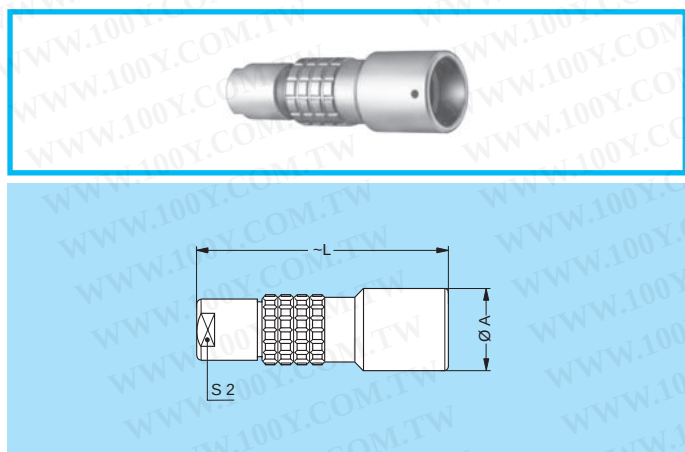


EVG 固定式插座, 螺母固定, 定位销 (G)
或定位销 (A ... F 和 L) 和防尘盖 (加装弹簧)

编号		尺寸 (mm)									
型号	系列	A	B	e	E	L	M	N ¹⁾	P	S1	S3
EVG	0K	18	19.2	M14x1.0	6.5	24.8	7.2	23.3	21.6	12.5	17

P1 面板开口尺寸见第 153 页

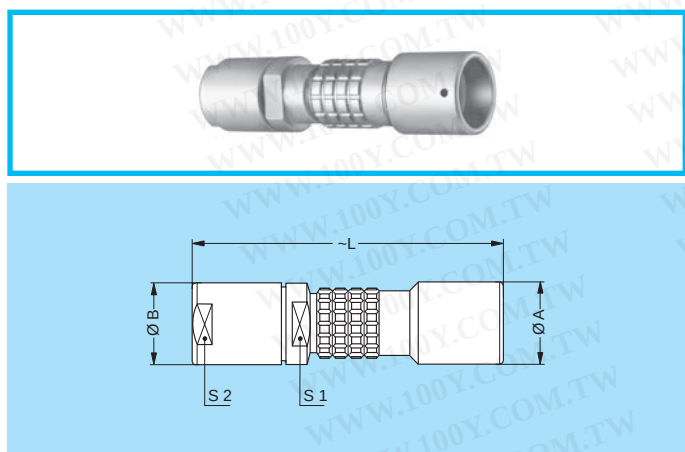
注: ¹⁾ 压接针芯时的最大长度



PHG 浮动式插座, 定位销 (G) 或定位销 (A ... F, L 和 R),
电缆线夹

编号		尺寸 (mm)		
型号	系列	A	L	S2
PHG	0K	13	34.0	8
PHG	1K	15	45.0	9
PHG	2K	19	54.0	12
PHG	3K	23	65.0	15
PHG	4K	29	75.5	19
PHG	5K	42	95.0	32

M1 电缆组装见第 162 页

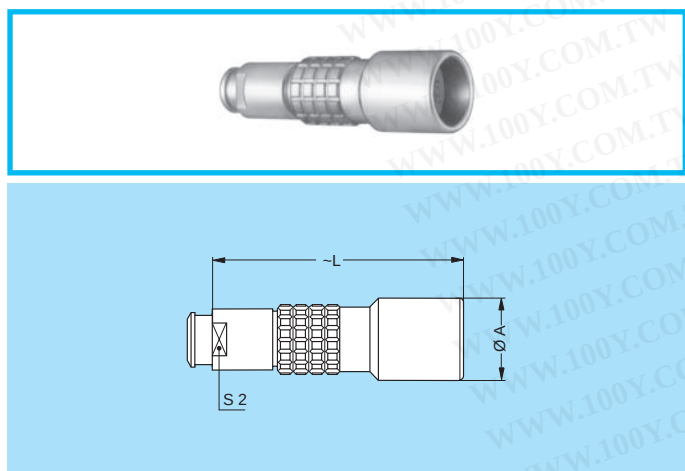


PHG 浮动式插座, 定位销 (G) 或定位销 (A ... F, L 和 R),
电缆线夹和加大尺寸电缆线夹¹⁾

编号		尺寸 (mm)				
型号	系列	A	B	L	S1	S2
PHG	1K	15	14.5	68	12	12
PHG	2K	19	17.0	70	15	15
PHG	3K	23	22.0	89	19	19
PHG	4K	29	36.0	124	30	32

M2 电缆组装见第 163 页

注: ¹⁾ 对应 K 型线夹, 在该型号上用加大尺寸线夹使其能使用大一号外壳适用的电缆。(见第 53 页)



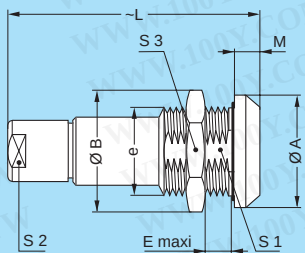
PHG 浮动式插座, 定位销 (G) 或定位销 (A ... F, L 和 R),
电缆线夹和带护套型的尾盖¹⁾

编号		尺寸 (mm)		
型号	系列	A	L	S2
PHG	0K	13	34.0	7
PHG	1K	15	45.0	9
PHG	2K	19	54.0	12
PHG	3K	23	64.0	15
PHG	4K	29	75.5	19

M1 电缆组装见第 162 页

Note: ¹⁾ 订购时, 在编号最后加一字母 "Z".

护套需另外订购 (见第 141 页)。



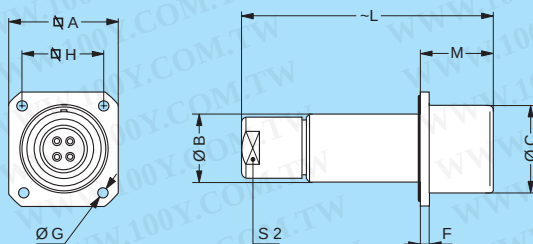
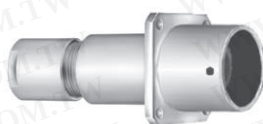
PKG 固定式插座, 螺母固定, 定位销(G)
 或定位销(A...F, L和R), 电缆线夹

编号		尺寸 (mm)								
型号	系列	A	B	e	E	L	M	S1	S2	S3
PKG	0K	18	19.2	M14x1.0	6.0	34.0	4.0	12.5	8	17
PKG	1K	20	21.5	M16x1.0	9.0	45.0	4.5	14.5	9	19
PKG	2K	25	27.0	M20x1.0	9.0	54.0	5.0	18.5	12	24
PKG	3K	31	34.0	M24x1.0	11.5	65.0	6.0	22.5	15	30
PKG	4K	37	40.5	M30x1.0	9.0	75.5	6.5	28.5	19	36
PKG	5K	55	54.0	M45x1.0	15.0	98.0	9.0	42.5	30	-

P1 面板开口尺寸见第 153 页

M1 电缆组装见第 162 页

注: 5K 系列出厂时配有圆螺母。

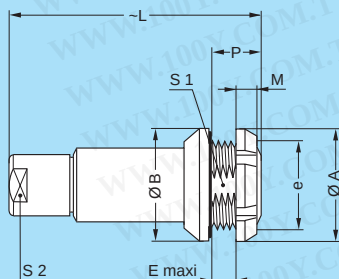


PBG 带方形法兰的固定式插座, 定位销(G),
 电缆线夹, 螺丝固定

编号		尺寸 (mm)								
型号	系列	A	B	C	F	G	H	L	M	S2
PBG	3K	29	19	23	3	3.4	23	65	22.5	15

P7 面板开口尺寸见第 153 页

M1 电缆组装见第 162 页



PEG 固定式插座, 螺母固定, 定位销(G)
 或定位销(A...F, L和R), 电缆线夹
 (后面板安装)

编号		尺寸 (mm)								
型号	系列	A	B	e	E	L	M	P	S1	S2
PEG	0K	18	18	M14x1.0	5.0	34	3.5	8.5	12.5	8
PEG	1K	20	20	M16x1.0	6.5	45	3.5	10.0	14.5	9
PEG	2K	25	25	M20x1.0	4.0	54	3.5	7.5	18.5	12
PEG	3K	30	31	M24x1.0	7.5	65	4.5	12.0	22.5	15

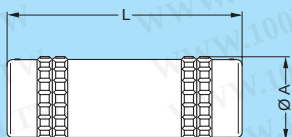
P1 面板开口尺寸见第 153 页

M1 电缆组装见第 162 页

注: 3K 系列出厂时配有圆锥螺母。

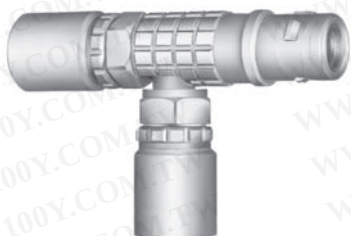


TGL 浮动式双通，一端为定位销(G)，另一端为定位销(L)

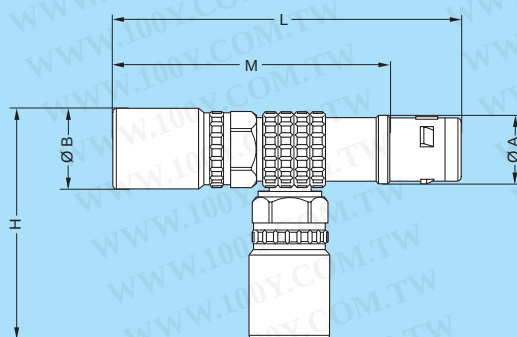


编号	尺寸 (mm)	
	A	L
TGL.3K.3●●.CLLP	24	64.2

注：此型号仅提供 308, 310, 316, 318, 320, 324 和 330 类型。



FTG T型插头，定位销(G)，带90°弯角插座，定位销(G)



编号	尺寸 (mm)				
	A	B	H	L	M
FTG.2K.304.CLF	16	19	48	77	60
FTG.2K.308.CLF	16	19	48	77	60

水密或真空密封型号

此类插座和双通型号可使设备达到 IP68 保护等级 (按 IEC60529 标准)。他们与同系列的插头完全兼容, 因而被广泛应用于手提无线设备、军工、实验设备和航空领域等。

此类型号是在产品编号最后加一个字母“P”以示区别。

此类型号大多数都有真空密封型。若是真空密封型号, 需在字母“P”后再多加一个字母“V”。(需要的话, 可提供检验报告)

此类型号的密封材料为环氧树脂。

技术特性

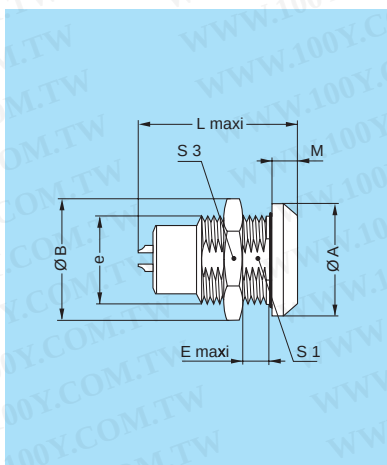
机械性能和环境因素

特性	参数	标准
插拔次数	> 5000 次	IEC60512-5 试验 9a
湿度	在 60°C 时最高达 95%	
温度范围 (0K 到 1K)	-20°C, +100°C	
温度范围 (2K 到 5K)	-20°C, +80°C	
盐雾腐蚀试验	> 144h	IEC60512-6 试验 11f
环境实验	20/80/21	IEC60068-1
泄漏率 (He) ¹⁾	< 10 ⁻⁷ mbar.l.s ⁻¹	IEC60512-7 试验 14b

注: ¹⁾ 仅适用于真空密封型

特性	参数	标准
最大工作压强 ²⁾	0K	60 bars
	1K	60 bars
	2K	40 bars
	3K	30 bars
	4K	15 bars
	5K	5 bars
		IEC60512-7 试验 14d

注: ²⁾ 此参数对应的是组装后的插座能承受的最大压差

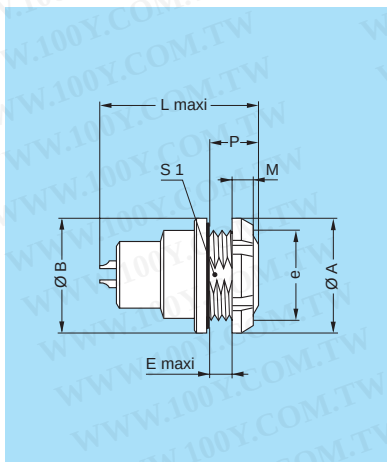


HGG 固定式插座, 螺母固定, 定位销 (G)
或定位销 (A...F 和 L), 水密或真空密封

编号		尺寸 (mm)							
型号	系列	A	B	e	E	L	M	S1	S3
HGG	0K	18	19.2	M14x1.0	5.5	21.7	4.0	12.5	17
HGG	1K	20	21.5	M16x1.0	9.0	30.0	4.5	14.5	19
HGG	2K	25	27.0	M20x1.0	13.0	33.7	5.0	18.5	24
HGG	3K	31	34.0	M24x1.0	16.0	41.7	6.0	22.5	30
HGG	4K	37	40.5	M30x1.0	14.0	49.2	6.5	28.5	36
HGG	5K	55	54.0	M45x1.5	10.0	55.7	9.0	42.5	-

P1 面板开口尺寸见第 153 页

注: 5K 系列出厂时配有圆螺母。

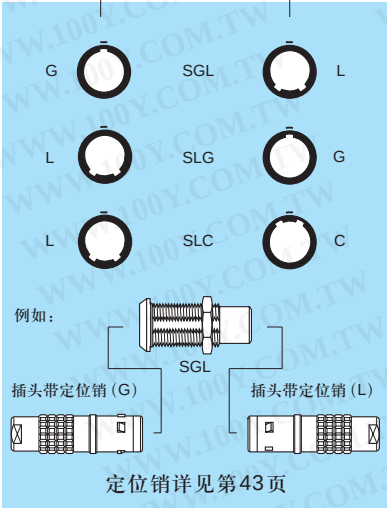
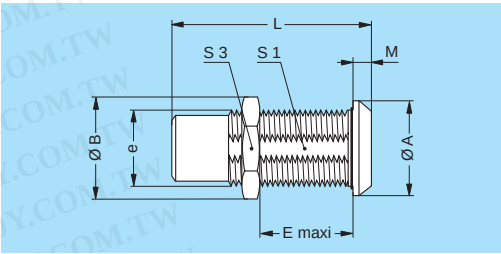
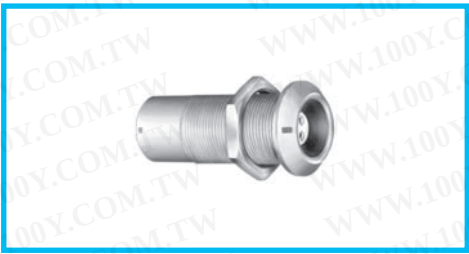
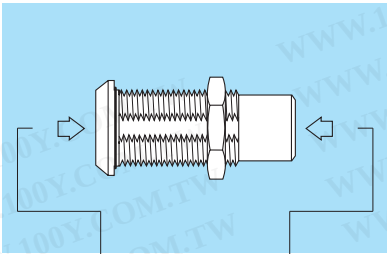


HEG 固定式插座, 螺母固定, 定位销 (G)
或定位销 (A...F 和 L), 水密或真空密封
(后面板安装)

编号		尺寸 (mm)							
型号	系列	A	B	e	E	L	M	P	S1
HEG	0K	18	18	M14x1.0	2.4	21.7	3.5	7	12.5
HEG	1K	20	20	M16x1.0	6.2	30.0	3.5	10	14.5
HEG	2K	25	25	M20x1.0	5.0	33.7	3.5	10	18.5

P1 面板开口尺寸见第 153 页

S●● 固定式双通，螺母固定，法兰端为定位销 (G) 或定位销 (L)，另一端为定位销 (G) 或定位销 (C 和 L)，水密或真空密封



编号		针芯	尺寸 (mm)							
型号	系列	类型	A	B	e	E	L	M	S1	S3
SGL	2K	母针芯 - 公针芯	25	27.0	M20x1.0	25	52.4	5.0	18.5	24
SLG		公针芯 - 母针芯								
SLG	3K	公针芯 - 母针芯	31	34.0	M24x1.0	33	64.0	6.0	22.5	30
SLG	4K	公针芯 - 母针芯	37	40.5	M30x1.0	48	74.0	6.5	28.5	36
SLC		公针芯 - 母针芯								
SLG	5K	公针芯 - 母针芯	55	54.0	M45x1.5	58	88.0	9.0	42.5	-
SLC		公针芯 - 母针芯								

P1 面板开口尺寸见第153页

注：对此固定双通，所提到的第一个针芯类型总是指法兰端的针芯类型。
可根据需要定制此类双通的其他系列，配其他的定位销。
5K系列出厂时配有圆螺母。

定位销 (K 系列)

定位销和极性定位销组合

K 系列连接器外壳型号由三个字母组成，最后一个字母表示定位销位置和针芯类型（公针芯或母针芯）。

插座正视图	编号	定位销数量	角度	系列						针芯类型		注
				0K	1K	2K	3K	4K	5K	插头	插座	
	G	1		0°	0°	0°	0°	0°	0°	公针芯	母针芯	●
	A	2	α	30°	30°	30°	30°	30°	30°	公针芯	母针芯	●
	B	2		45°	45°	45°	45°	45°	45°	公针芯	母针芯	●
	C	2		60°	60°	60°	60°	60°	60°	公针芯	母针芯	●
	D	2	γ	95°	95°	95°	95°	95°	95°	公针芯	母针芯	○
	E	2	β	120°	120°	120°	120°	120°	120°	公针芯	母针芯	○
	F	2		145°	145°	145°	145°	145°	145°	公针芯	母针芯	○
	L	2	γ	75°	75°	75°	75°	75°	75°	母针芯	公针芯	●

插座正视图	编号	定位销数量	角度	系列						针芯类型		注
				0K	1K	2K	3K	4K	5K	插头	插座	
	R	5	α	-	-	-	95°	-	-	公针芯	母针芯	●
			β	-	-	-	115°	-	-			
			γ	-	-	-	35°	-	-			
			δ	-	-	-	25°	-	-			

注：型号 S●● 和 TGL 不适用于所有的定位销。型号 S●● 见第 42 页的解释。
 请参看此类型号的相应页。

- 常规型号，首先考虑选择
- 特殊型号，有特殊需求时选择

勝 特 力 材 料 886-3-5753170
勝特力电子(上海) 86-21-34970699
勝特力电子(深圳) 86-755-83298787
[Http://www.100y.com.tw](http://www.100y.com.tw)

针芯配置 (B 和 K 系列)

多芯

		焊接型公针芯	焊接型母针芯	压接型公针芯	压接型母针芯	编号	针芯数量	Ø A (mm)	针芯类型				焊接针芯		压接针芯		额定电流 (A) ¹⁾
									焊接针芯	压接针芯	印制板接直针芯	印制板接弯角针芯	测试电压 (kV rms) ¹⁾ 针芯 - 针芯	测试电压 (kV rms) ¹⁾ 针芯 - 外壳	测试电压 (kV rms) ¹⁾ 针芯 - 针芯	测试电压 (kV rms) ¹⁾ 针芯 - 外壳	
00						302	2	0.5	●	●	●	●	1.00	0.95	1.15	1.20	5.0
						303	3	0.5	●	●	●	●	0.80	0.95	1.35	1.10	3.0
						304	4	0.5	●	●	●	●	0.80	0.65	1.05	1.05	2.0
0B 0K						302	2	0.9	●	●	●	●	1.30	1.05	1.45	1.20	10.0 ²⁾
						303	3	0.9	●	●	●	●	1.20	0.90	1.70	1.60	8.0 ²⁾
						304	4	0.7	●	●	●	●	0.85	0.70	1.35	1.10	7.0 ²⁾
						305	5	0.7	●	●	●	●	1.00	0.70	1.25	1.20	6.5 ²⁾
						306	6	0.5	●	○ ⁴⁾	●	●	0.85	0.65	1.40	1.20	2.5
						307	7	0.5	●	○ ⁴⁾	●	●	0.80	0.70	1.40	1.20	2.5
						309	9	0.5	●	○ ⁴⁾	●	○	0.60	0.50	1.00	0.85	2.0
1B 1K						302	2	1.3	●	●	●	●	1.50	1.35	1.70	1.45	15.0 ³⁾
						303	3	1.3	●	●	●	●	1.30	1.55	1.60	1.85	12.0
						304	4	0.9	●	●	●	●	1.35	1.45	1.70	1.80	10.0 ²⁾
						305	5	0.9	●	●	●	●	1.25	1.15	1.30	1.55	9.0 ²⁾
						306	6	0.7	●	●	●	●	1.05	1.20	1.35	1.45	7.0 ²⁾
						307	7	0.7	●	●	●	●	0.95	1.05	1.45	1.45	7.0 ²⁾
						308	8	0.7	●	●	●	●	0.95	1.15	1.30	1.30	5.0
						310	10	0.5	●	○ ⁴⁾	●	●	0.90	1.50	1.20	1.80	2.5
						314	14	0.5	●	○ ⁴⁾	●	●	0.80	1.20	0.95	1.60	2.0
						316	16	0.5	●	○ ⁴⁾	●	○	0.80	1.25	0.95	1.60	1.5

- 常规型号, 先考虑选择
 ○ 特殊型号, 有特殊需求时选择

- 注: 1) 见第178页计算方法、注意事项和推荐标准。
 2) 插座配印制板接 90° 弯角针芯时, 额定电流为 6A。
 3) 插座配印制板接 90° 弯角针芯时, 额定电流为 12A。
 4) 仅适用于配公针芯的连接器。

多芯

2B
2K

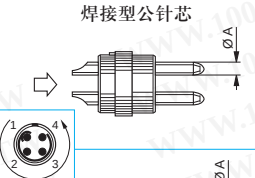
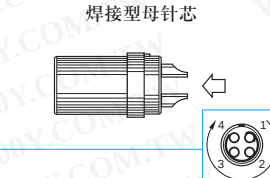
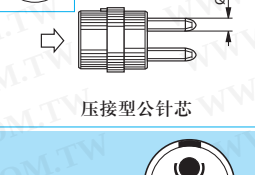
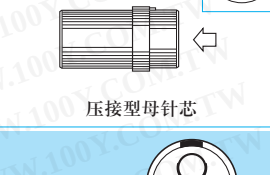
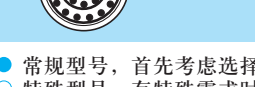
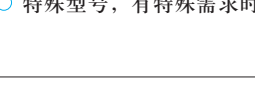
焊接型公针芯 压接型公针芯		焊接型母针芯 压接型母针芯	编号	针芯数量	Ø A (mm)	针芯类型				焊接针芯		压接针芯		额定电流 (A) ¹⁾
						焊接针芯	压接针芯	印制板接直针芯	印制板接弯角针芯	测试电压 (kV rms) ¹⁾ 针芯 - 针芯	测试电压 (kV rms) ¹⁾ 针芯 - 外壳	测试电压 (kV rms) ¹⁾ 针芯 - 针芯	测试电压 (kV rms) ¹⁾ 针芯 - 外壳	
			302	2	2.0	●	●	●	●	2.10	1.75	2.85	2.70	30.0 ³⁾
			303	3	1.6	●	●	●	●	2.40	1.85	1.90	1.90	17.0 ³⁾
			304	4	1.3	●	●	●	●	1.85	1.85	2.20	2.20	15.0 ³⁾
			305	5	1.3	●	●	●	●	1.75	1.60	2.15	2.15	14.0 ³⁾
			306	6	1.3	●	●	●	●	1.35	1.45	2.00	2.35	12.0
			307	7	1.3	●	●	●	●	1.75	1.60	1.95	2.15	11.0
			308	8	0.9	●	●	●	●	1.50	1.25	1.95	1.95	10.0 ²⁾
			310	10	0.9	●	●	●	●	1.45	1.30	1.80	2.10	8.0 ²⁾
			312	12	0.7	●	●	●	●	1.25	1.35	1.65	2.00	7.0 ²⁾
			314	14	0.7	●	●	●	●	1.15	1.35	1.55	1.95	6.5 ²⁾
			316	16	0.7	●	●	●	●	0.95	1.25	1.55	1.75	6.0
			318	18	0.7	●	●	●	●	0.85	1.20	1.45	2.10	5.5
			319	19	0.7	●	●	●	●	0.95	1.25	1.55	1.65	5.0
			326	26	0.5	●	-	●	○	0.95	1.30	1.20	1.80	2.0
			332	32	0.5	●	-	●	○	0.80	1.2	0.95	1.60	1.5

- 常规型号, 首先考虑选择
 ○ 特殊型号, 有特殊需求时选择

注: 1) 见第178页计算方法、注意事项和推荐标准。
 2) 插座配印制板接 90° 弯角针芯时, 额定电流为 6A。
 3) 插座配印制板接 90° 弯角针芯时, 额定电流为 12A。



多芯

焊接型公针芯		焊接型母针芯		编号	针芯数量	ØA (mm)	针芯类型				焊接针芯		压接针芯		额定电流 (A) ¹⁾
							焊接针芯	压接针芯	印制板接直针芯	印制板接弯角针芯	测试电压 (kV rms) ¹⁾ 针芯 - 针芯	测试电压 (kV rms) ¹⁾ 针芯 - 外壳	测试电压 (kV rms) ¹⁾ 针芯 - 针芯	测试电压 (kV rms) ¹⁾ 针芯 - 外壳	
				302	2	3.0	●	●	○	-	2.10	1.55	2.30	1.80	35.0
				303	3	2.0	●	●	●	○	1.90	1.50	3.20	2.65	25.0
				304	4	2.0	●	●	●	○	1.45	1.25	2.50	2.20	19.0
				305	5	1.6	●	●	●	○	1.90	1.25	2.40	1.75	19.0
				306	6	1.6	●	●	●	○	1.60	1.15	1.90	1.80	17.0
				307	7	1.6	●	●	●	○	1.70	1.25	2.00	2.05	15.0
				308	8	1.3	●	●	●	●	1.65	1.15	1.85	1.75	13.0
				309	8 1	1.3 2.0	●	●	●	-	1.35 1.35	1.05 1.05	1.10 1.10	1.05 1.05	6.0 15.0
				310	10	1.3	●	●	●	○	1.25	0.90	1.50	1.80	12.0
				312	12	0.9	●	●	●	●	1.45	1.00	1.65	1.85	9.0
				314	14	0.9	●	●	●	●	1.20	1.20	1.80	1.65	9.0 ²⁾
				316	16	0.9	●	●	●	●	1.20	0.85	1.80	1.50	8.0
				318	18	0.9	●	●	●	●	1.20	1.05	1.85	1.60	7.0
				320	20	0.7	●	●	●	●	1.00	0.90	1.35	1.55	6.0
				322	22	0.7	●	●	●	○	1.00	0.90	1.70	1.45	5.5
				324	24	0.7	●	●	●	●	0.95	0.80	1.35	1.35	4.0
				326	26	0.7	●	●	●	○	0.95	0.70	1.50	1.30	4.0
				330	30	0.7	●	●	●	●	0.80	0.70	1.35	1.20	3.5

- 常规型号, 首先考虑选择
○ 特殊型号, 有特殊需求时选择

注: ¹⁾ 见第178页计算方法、注意事项和推荐标准。
²⁾ 插座配印制板接 90° 弯角针芯时, 额定电流为 6A。

多芯

4B
4K

焊接型公针芯 压接型公针芯		焊接型母针芯 压接型母针芯		编号	针芯数量	Ø A (mm)	针芯类型			焊接针芯		压接针芯		额定电流 (A) ¹⁾
							焊接针芯	压接针芯	印制板接直针芯	测试电压 (kV rms) ¹⁾ 针芯 - 针芯	测试电压 (kV rms) ¹⁾ 针芯 - 外壳	测试电压 (kV rms) ¹⁾ 针芯 - 针芯	测试电压 (kV rms) ¹⁾ 针芯 - 外壳	
				304	4	3.0	●	●	○	2.10	1.50	1.80	1.20	30.0
				306	6	2.0	●	●	○	2.00	1.75	2.75	2.40	24.0
				307	7	2.0	●	●	○	2.00	1.80	1.50	1.35	20.0
				310	10	1.6	●	●	○	1.85	1.30	1.90	1.95	17.0
				312	12	1.3	●	●	○	1.45	1.60	1.90	1.85	12.0
				316	16	0.9	●	●	●	1.35	1.50	2.30	2.10	10.0
				320	20	0.9	●	●	●	1.35	1.00	1.05	0.95	8.0
				324	24	0.9	●	●	●	1.20	1.45	1.80	2.05	7.0
				330	30	0.9	●	●	●	0.95	0.85	1.75	1.45	5.0
				340	40	0.7	●	●	●	0.90	0.90	1.30	1.30	2.0
				348	48	0.7	●	●	●	0.70	0.70	1.00	1.00	1.5

● 常规型号, 首先考虑选择
 ○ 特殊型号, 有特殊需求时选择

注: ¹⁾ 见第178页计算方法、注意事项和推荐标准。



多芯

	焊接型公针芯	焊接型母针芯	压接型公针芯	压接型母针芯	编号	针芯数量	Ø A (mm)	针芯类型			焊接针芯		压接针芯		额定电流 (A) ¹⁾
								焊接针芯	压接针芯	印制板接直针芯	测试电压 (kV rms) ¹⁾ 针芯 - 针芯	测试电压 (kV rms) ¹⁾ 针芯 - 外壳	测试电压 (kV rms) ¹⁾ 针芯 - 针芯	测试电压 (kV rms) ¹⁾ 针芯 - 外壳	
5B 5K					302	2	6.0	●	-	-	3.60	2.95	-	-	50.0
					304	4	4.0	●	●	○	2.95	2.65	3.20	2.40	35.0
					310	10	3.0	●	●	○	2.35	2.30	2.65	3.20	20.0
					314	14	2.0	●	●	○	2.10	2.00	2.85	2.95	18.0
					316	16	2.0	●	●	○	1.85	1.95	2.45	3.05	12.0
					320	20	1.6	●	●	○	1.90	1.70	2.20	2.40	10.0
					330	30	1.3	●	●	○	1.45	1.60	2.05	2.45	8.0
					340	40	1.3	●	●	○	1.30	1.45	2.00	1.95	7.0
					348	48	1.3	●	●	●	1.20	1.10	2.00	1.55	6.0
					350	50	0.9	●	●	●	1.30	1.60	1.20	1.45	6.0
					354	54	0.9	●	●	●	1.15	1.55	2.00	2.10	5.0
					364	64	0.9	●	●	●	1.30	1.55	1.35	1.85	3.0

- 常规型号, 首先考虑选择
○ 特殊型号, 有特殊需求时选择

注: ¹⁾ 见第178页计算方法、注意事项和推荐标准。

外壳 (B 和 K 系列)

编号	外壳和尾盖		锁定套筒 + 接地环		其它金属构件		备注	注
	材料	表面处理	材料	表面处理	材料	表面处理		
C	黄铜	铬	黄铜/青铜	镍 ²⁾	黄铜	镍		●
N	黄铜	镍	黄铜/青铜	镍 ²⁾	黄铜	镍		○
K	黄铜	黑铬	黄铜/青铜	镍 ²⁾	黄铜	镍		●
S	不锈钢	-	黄铜/青铜	镍 ²⁾	黄铜	镍		●
T	不锈钢	-	不锈钢	-	黄铜	镍		○
U	不锈钢	-	不锈钢	-	不锈钢	-		○
L	铝合金	阳极电镀	黄铜/青铜	镍 ²⁾	黄铜	镍	¹⁾	○
X	铝合金	镍 (煤黑色)	黄铜/青铜	镍 ²⁾	黄铜	镍		○
G	PEEK (自然色)	-	黄铜/青铜	镍 ²⁾	黄铜	镍	只适于 FGG 和 ENG (B 系列)	●
P	PSU	-	黄铜/青铜	镍 ²⁾	黄铜	镍	只适于 FGY 和 ENY (B 系列) ¹⁾	●
R	PPSU	-	黄铜/青铜	镍 ²⁾	黄铜	镍	只适于 FGY 和 ENY (B 系列) ¹⁾	●
H	PPS/黄铜	-/镍	黄铜/青铜	镍 ²⁾	黄铜	镍	只适于弯角插座 (B 系列)	●
P	PA.6	-	黄铜/青铜	镍 ²⁾	黄铜	镍	只适于桥式插头 CRF 和 CRG ¹⁾	●

注：材料的详细性能和处理方法见第 171 页的介绍。

¹⁾ 颜色见《变量参数》。

²⁾ K 系列的锁定套筒表面镀铬。

- 常规型号，首先考虑选择
- 特殊型号，有特殊需求时选择

绝缘体 (B 和 K 系列)

编号	材料	针芯类型	备注	注
Y	PEEK	压接	加长设计，使针芯插入绝缘。	●
L	PEEK	焊接或印制板接		●

注：材料的详细性能见第 175 页的介绍。

针芯 (B 和 K 系列)

焊接特性

- 不需要定特殊的工具，只需要电烙铁就足够
- 特别适用于非常小而脆的线芯
- 针芯开有焊接杯口，能使焊锡充分流动

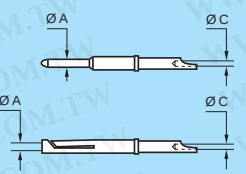
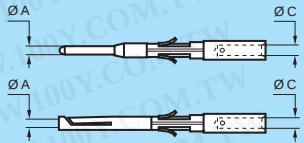
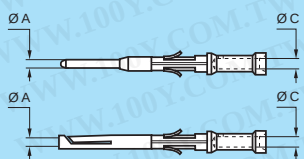
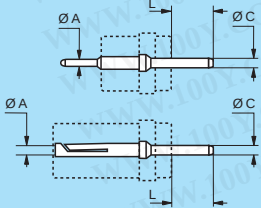
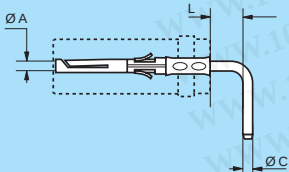
压接特性

- 实用、快速地固定针芯，并且在绝缘体外部操作
- 能在相对高温下使用
- 需要订购特殊工具
- 在压接针芯过程中不会有像焊接那样导致绝缘体被加热
- 抗拉伸强度高
- 完全彻底的无铅化解决方案

注：详情请看第 176 页



插头、浮动式或固定式插座的针芯参数

针芯类型	编号		针芯			芯线（内导体）						F _r ¹⁾ (N)	注	
	公针芯	母针芯	Ø A (mm)	Ø C (mm)	图示	实心芯线		绞织芯线						
						AWG 最大值	截面积 最大值 (mm ²)	AWG		截面积 (mm ²)				
								最小值	最大值	最小值	最大值			
焊接 	A	L	0.5 ²⁾	0.40 ²⁾	-	28	0.09	-	30	-	0.05	-	●	
			0.5	0.45	-	28	0.09	-	28	-	0.09	-		
			0.7	0.80	-	22	0.34	-	22 ³⁾	-	0.34	-		
			0.9	0.80	-	22	0.34	-	22 ³⁾	-	0.34	-		
			1.3	1.00	-	20	0.50	-	20 ³⁾	-	0.50	-		
			1.6	1.40	-	16	1.00	-	18	-	1.00	-		
			2.0	1.80	-	14	1.50	-	16	-	1.50	-		
			3.0	2.70	-	10	4.00	-	12	-	4.00	-		
			4.0	3.70	-	10	6.00	-	10	-	6.00	-		
			6.0	5.20	-	-	-	-	8	-	10.00	-		
图1 压接  图2 	C	M	0.5 ⁴⁾	0.45	1	-	-	32	28	0.035	0.09	12	●	
	C	M	0.7	0.80	1	-	-	26	22 ³⁾	0.140	0.34	22	●	
	B	P		0.45	2	-	-	32	28	0.035	0.09		○	
	C	M	0.9	1.10	1	-	-	24	20	0.250	0.50	30	●	
	B	P		0.80	2	-	-	26	22 ³⁾	0.140	0.34		○	
	G	U	1.3	0.45	2	-	-	32	28	0.035	0.09	40	○	
	C	M		1.40	1	-	-	20	18	0.500	1.00		●	
	B	P	1.6	1.10	2	-	-	24	20	0.250	0.50	50	○	
	G	U		0.80	2	-	-	26	22 ³⁾	0.140	0.34		○	
	C	M	2.0	1.90	1	-	-	18	14 ³⁾	1.000	1.50	65	●	
	B	P		1.40	2	-	-	22	18	0.340	1.00		○	
	C	M	3.0	2.40	1	-	-	16	12 ³⁾	1.500	2.50	75	●	
	B	P		1.90	2	-	-	18	14	1.000	1.50		○	
	C	M	4.0	2.90	1	-	-	14	10 ³⁾	2.500	4.00	90	●	
	C	M		4.00	1	-	-	12	10	4.000	6.00		●	
	印制板接 	D	N	尺寸L和C详见第156页PCB板钻孔参数部分。										●
	印制板接（弯角） 	V	V	尺寸L和C详见第156页PCB板钻孔参数部分。										●

注: 1) 针芯在绝缘体内的保持力 (符合 IEC 60512-8 标准 15a 测试方法)。

2) 适用于 00 多芯系列。

3) 对于一给定线规 AWG, 一些绞织芯线的直径设计大于焊接杯口的直径。确保芯线最大直径小于焊接杯口的直径 Ø C。

4) 仅适用于 00 多芯系列和 0B、1B 系列中配置了公针芯的连接器。

- 常规型号, 首先考虑选择
- 特殊型号, 有特殊需求时选择

双通 R●●、S●●和 TGL 的针芯参数

编号	针芯类型	备注
A	公针芯 - 母针芯	针芯配置的解释见第 21、28、42 页。
L	母针芯 - 公针芯	针芯配置的解释见第 21、28、42 页。
M	母针芯 - 母针芯	针芯配置的解释见第 21 页。

线夹 (B 和 K 系列)

适用于B系列的D型和M型线夹

D 型



M 型



勝特力材料 886-3-5753170
勝特力电子(上海) 86-21-34970699
勝特力电子(深圳) 86-755-83298787
[Http://www.100y.com.tw](http://www.100y.com.tw)

	编号		线夹 Ø		电缆 Ø		注
	类型	编码	Ø A	Ø B	最大值	最小值	
00	D	17	1.7	-	1.6	1.1	
	D	22	2.2	-	2.1	1.6	
	D	27	2.7	-	2.6	2.1	
	D	30	3.1	2.8	3.0	2.5	
	D	35	3.5	2.8	3.4	2.9	
0B	D	21	2.1	-	2.0	1.5	
	D	31	3.1	-	3.0	2.1	
	D	42	4.2	-	4.0	3.1	
	D	52	5.2	4.7	5.0	4.1	
	D	56	5.6	4.7	5.5	5.1	1)
1B	M	27	2.7	-	2.6	2.2	
	M	31	3.1	-	3.0	2.6	
	D	42	4.2	-	4.0	3.1	
	D	52	5.2	-	5.0	4.1	
	D	62	6.2	-	6.0	5.1	
	D	72	7.2	6.7	7.0	6.1	
2B	D	76	7.6	6.7	7.5	7.1	1)
	M	21	2.1	-	2.0	1.5	
	M	31	3.1	-	3.0	2.1	
	D	42	4.2	-	4.0	3.1	
	D	52	5.2	-	5.0	4.1	
	D	62	6.2	-	6.0	5.1	
	D	72	7.2	-	7.0	6.1	
	D	82	8.2	-	8.0	7.1	
	D	92	9.2	8.6	9.0	8.1	
	D	99	9.9	8.6	9.7	9.1	1)

注: 所有尺寸单位为毫米 mm。

1) 这些线夹不适用于含护套型尾盖的连接器型号。

	编号		线夹 Ø		电缆 Ø		注
	类型	编码	Ø A	Ø B	最大值	最小值	
3B	M	52	5.2	-	5.0	4.1	
	D	62	6.2	-	6.0	5.1	
	D	72	7.2	-	7.0	6.1	
	D	82	8.2	-	8.0	7.1	
	D	92	9.2	-	9.0	8.1	
	D	10	10.2	-	10.0	9.1	
	D	11	11.2	10.2	11.0	10.1	
4B	D	12	11.9	10.2	11.7	11.1	1)
	M	62	6.2	-	6.0	5.1	
	M	72	7.2	-	7.0	6.1	
	M	82	8.2	-	8.0	7.1	
	M	92	9.2	8.6	9.0	8.1	
	D	10	10.8	-	10.5	9.1	
	D	12	12.3	-	12.0	10.6	
	D	13	13.8	12.5	13.5	12.1	
	D	15	15.3	12.5	15.0	13.6	
	D	16	16.3	12.5	16.0	15.1	1)
5B	D	11	11.8	-	11.5	9.6	
	D	13	13.8	-	13.5	11.6	
	D	15	15.8	-	15.5	13.6	
	D	17	17.8	-	17.5	15.6	1)
	D	19	19.8	-	19.5	17.6	1)
	D	21	21.8	-	21.5	19.6	1)
	D	23	23.8	21.8	23.5	21.6	1)
	D	25	25.3	21.8	25.0	23.6	1)



适用于K系列的C型和K型线夹

C 型



K 型

加大型
电缆线夹

勝特力材料 886-3-5753170
勝特力电子(上海) 86-21-34970699
勝特力电子(深圳) 86-755-83298787
[Http://www.100y.com.tw](http://www.100y.com.tw)

0K

编号		线夹 Ø		电缆 Ø	
类型	编码	Ø A	Ø B	最大值	最小值
C	10	1.6	-	1.2	1.0
C	15	1.6	-	1.5	1.3
C	20	2.1	-	2.0	1.6
C	25	3.1	-	2.5	2.1
C	30	3.1	-	3.0	2.6
C	35	4.2	4.2	3.5	3.1
C	40	4.2	4.2	4.0	3.6
C	45	5.2	5.2	4.5	4.1
C	50	5.2	5.2	5.0	4.6

1K

C	15	1.6	-	1.5	1.3
C	20	2.2	-	2.0	1.6
C	25	3.2	-	2.5	2.1
C	30	3.2	-	3.0	2.6
C	35	4.2	-	3.5	3.1
C	40	4.2	-	4.0	3.6
C	45	5.2	-	4.5	4.1
C	50	5.2	-	5.0	4.6
C	55	6.2	6.2	5.5	5.1
C	60	6.2	6.2	6.0	5.6
C	65	7.2	6.7	6.5	6.1
K	70	7.2	-	7.0	6.6
K	75	8.2	8.2	7.5	7.1
K	80	8.2	8.2	8.0	7.6
K	85	9.2	8.6	8.5	8.1

2K

C	15	2.2	-	1.5	1.3
C	20	2.2	-	2.0	1.6
C	25	3.2	-	2.5	2.1
C	30	3.2	-	3.0	2.6
C	35	4.2	-	3.5	3.1
C	40	4.2	-	4.0	3.6
C	45	5.2	-	4.5	4.1
C	50	5.2	-	5.0	4.6
C	55	6.2	-	5.5	5.1
C	60	6.2	-	6.0	5.6
C	65	7.2	-	6.5	6.1
C	70	7.2	-	7.0	6.6
C	75	8.2	8.2	7.5	7.1
C	80	8.2	8.2	8.0	7.6
C	85	9.2	8.6	8.5	8.1
K	90	9.2	-	9.0	8.6
K	95	10.2	10.2	9.5	9.1
K	10	10.2	10.2	10.0	9.6
K	11	11.2	10.6	10.5	10.1

3K

C	30	3.2	-	3.0	2.6
C	35	4.2	-	3.5	3.1
C	40	4.2	-	4.0	3.6
C	45	5.2	-	4.5	4.1
C	50	5.2	-	5.0	4.6
C	55	6.2	-	5.5	5.1
C	60	6.2	-	6.0	5.6
C	65	7.2	-	6.5	6.1

3K

编号		线夹 Ø		电缆 Ø	
类型	编码	Ø A	Ø B	最大值	最小值
C	70	7.2	-	7.0	6.6
C	75	8.2	-	7.5	7.1
C	80	8.2	-	8.0	7.6
C	85	9.2	-	8.5	8.1
C	90	9.2	-	9.0	8.6
C	95	10.2	10.2	9.5	9.1
C	10	10.2	10.2	10.0	9.6
C	11	11.2	10.6	10.5	10.1
K	11	12.3	-	12.0	10.6
K	12	13.8	13.8	12.8	12.1
K	13	13.8	13.8	13.5	12.9
K	14	15.3	15.3	14.0	13.6
K	15	15.3	15.3	15.0	14.1

4K

C	50	6.3	-	5.0	4.6
C	55	6.3	-	5.5	5.1
C	60	6.3	-	6.0	5.6
C	65	7.3	-	6.5	6.1
C	70	7.3	-	7.0	6.6
C	75	8.3	-	7.5	7.1
C	80	8.3	-	8.0	7.6
C	85	9.3	-	8.5	8.1
C	90	9.3	-	9.0	8.6
C	95	10.8	-	9.5	9.1
C	10	10.8	-	10.5	9.6
C	11	12.3	-	12.0	10.6
C	12	13.8	13.8	12.8	12.1
C	13	13.8	13.8	13.5	12.9
C	14	15.3	15.3	14.0	13.6
C	15	15.3	15.3	15.0	14.1
K	16	17.8	-	16.5	15.6
K	17	17.8	-	17.5	16.6
K	18	19.8	-	18.5	17.6
K	19	19.8	-	19.5	18.6
K	20	21.8	-	20.5	19.6
K	21	21.8	-	21.5	20.6
K	22	23.8	23.8	22.5	21.6
K	23	23.8	23.8	23.5	22.6

5K

C	10	11.8	-	10.5	9.6
C	11	11.8	-	11.5	10.6
C	12	13.8	-	12.5	11.6
C	13	13.8	-	13.5	12.6
C	14	15.8	-	14.5	13.6
C	15	15.8	-	15.5	14.6
C	16	17.8	-	16.5	15.6
C	17	17.8	-	17.5	16.6
C	18	19.8	-	18.5	17.6
C	19	19.8	-	19.5	18.6
C	20	21.8	-	20.5	19.6
C	21	21.8	-	21.5	20.6
C	22	23.8	23.8	22.5	21.6
C	23	23.8	23.8	23.5	22.6

注：所有尺寸单位为毫米 mm。

变量参数 (B 和 K 系列)

适用于B系列的护套和适配线夹

编号		尾盖		需另外订购 (见第 141 和 142 页)
		类型	编码	
00	Z	D	17 到 35	GMA.00.●●●●● GMB.00.●●●●●
0B	Z	D	21 到 52	GMA.0B.●●●●●
1B	Z	M	27 和 31	GMA.1B.●●●●●
		D	42 到 72	GMA.1B.●●●●●
2B	Z	M	21 和 31	GMA.0B.●●●●●
		D	42	GMA.2B.●●●●●
		D	52 到 92	GMA.2B.●●●●●
3B	Z	M	52	GMA.1B.●●●●●
		D	62 到 11	GMA.3B.●●●●●
4B	Z	M	62 和 72	GMA.2B.●●●●●
		M	82 和 92	GMA.4B.●●●●●
		D	10 到 15	GMA.4B.●●●●●
5B	Z	D	11 到 15	GMA.4B.●●●●●

适用于K系列的护套和适配线夹

编号		尾盖		需另外订购 (见第 141 和 142 页)
		类型	编码	
0K	Z	C	10 到 50	GMA.0B.●●●●●
1K	Z	C	15 到 65	GMA.1B.●●●●●
		K	70 到 85	GMA.2B.●●●●●
2K	Z	C	15 到 85	GMA.2B.●●●●●
		K	90 到 10	GMA.3B.●●●●●
3K	Z	C	30 到 10	GMA.3B.●●●●●
		K	11 到 15	GMA.4B.●●●●●
4K	Z	C	50 到 15	GMA.4B.●●●●●

注：所有尺寸单位为毫米

桥式插头外壳和连接器外壳 (塑料和铝合金材质) 的颜色

编号	颜色	桥式插头和塑料外壳连接器			铝合金外壳连接器	
		PSU	PPSU	PA.6	阳极电镀颜色	带护套型尾盖的 阳极电镀颜色
A	蓝色			●	●	
B	白色	●		●		
G	灰色	●		●		
J	黄色			●	●	
M	棕色			●		
N	黑色			●	●	
R	红色			●	●	
S	橙色			●		
T	自然色				●	
V	绿色			●	●	
L	黑色					●
X	自然色					●
F	奶油色		●			

注：含带护套型尾盖的连接器也有其它的电镀颜色。如有需要，请与我们联系。

水密和真空密封的插座和双通型号 (B 和 K 系列)

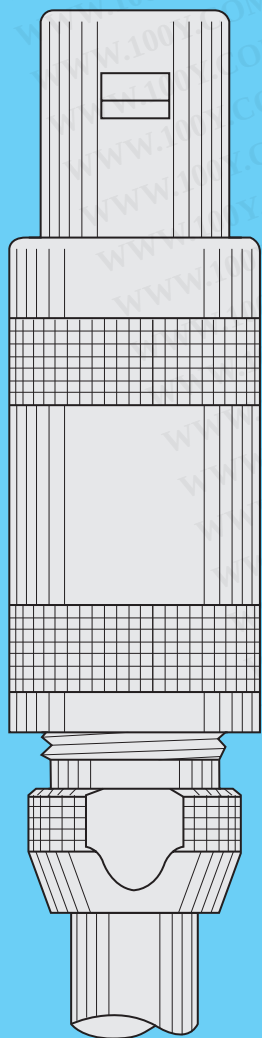
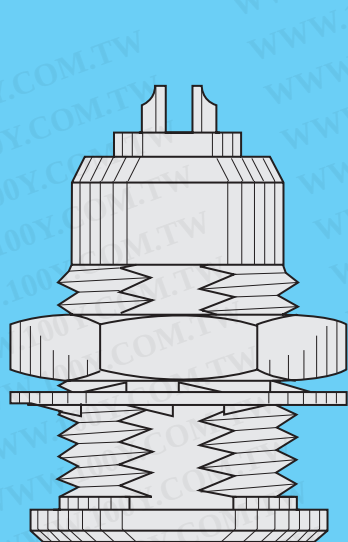
	型号	编号	
		水密	真空密封
B	YH●, HG●, HN●, HH●, HC●, HE●, HM●, S●●	P	PV
K	HG●, HE●, S●●	P	PV

O 形圈的材料 (K 系列)

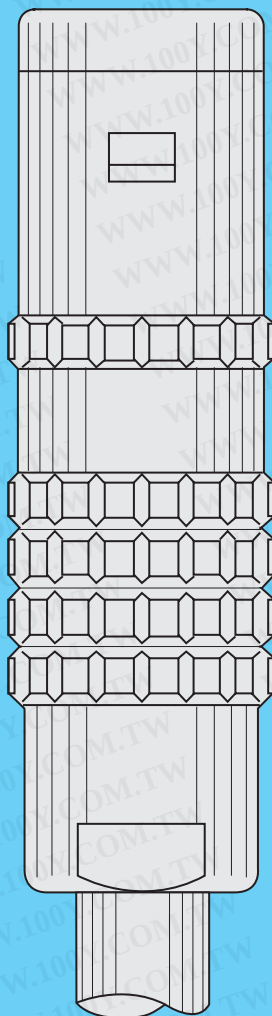
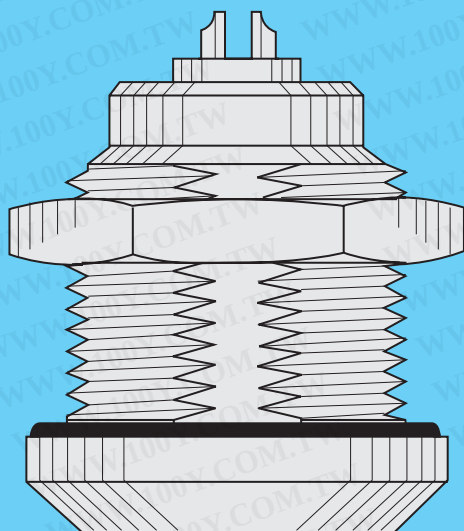
标准连接器出厂时配有硅胶材料的 O 形圈。真空密封型号则配有氟橡胶 (Viton®) 材料的 O 形圈，用字母“PV”标示。其他垫圈材料可按特殊要求提供。

O 形圈材料	编号
FPM (Viton®)	H
EPDM	E

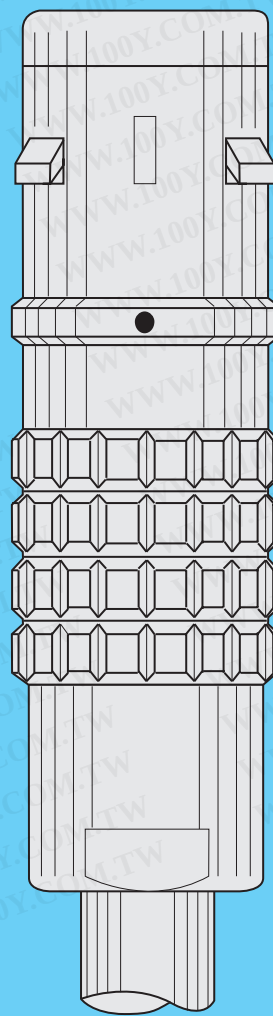
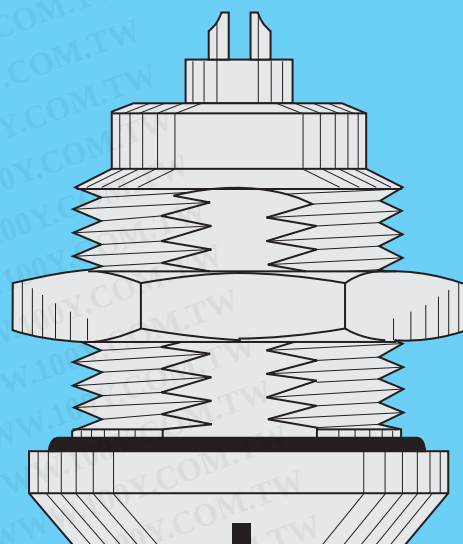
勝特力材料 886-3-5753170
勝特力电子(上海) 86-21-34970699
勝特力电子(深圳) 86-755-83298787
[Http://www.100y.com.tw](http://www.100y.com.tw)



S 系列



E 系列 (防水)



L 系列 (定位销定位并防水)

S 系列

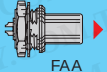
勝特力材料 886-3-5753170
勝特力电子(上海) 86-21-34970699
勝特力电子(深圳) 86-755-83298787
[Http://www.100y.com.tw](http://www.100y.com.tw)

S 系列连接器具备下列主要特征：

- 安全的插拔自锁系统
- 单芯类型传输电流最高达 230 A，多芯类型最多达 106 芯
- 360° 屏蔽提供全方位 EMC 防护（抗电磁干扰）
- 焊接、压接和印制板接针芯（直式或弯角式）
- 阶梯状（半月）插芯同时配有公针芯和母针芯，极性定位

金属外壳型号 (第 58 页)

固定式插头



FAA

直式插头



FFA, FFP

固定式插座



ERA



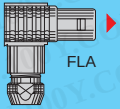
EEP

浮动式插座



PCA, PCP

弯角式插头



FLA



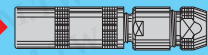
FFA



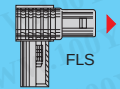
ERN



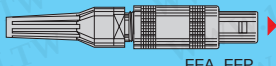
ERD



PCA



FLS



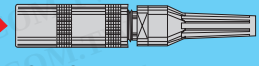
FFA, FFP



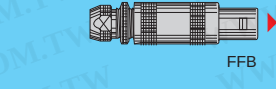
ERC



ECP



PCA, PCP



FFB



ERS



ECP



PZP



FFE



EHP



ECP



PSA, PSP



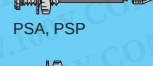
FFL



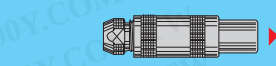
EBD



RMA



PSS



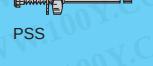
FFF



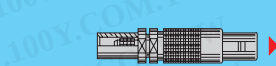
EBS



RAD



FTA



FFS



EBC



RAD



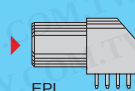
FTA



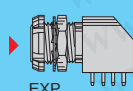
FZP

弯角式插座型号 (第 68 页)

弯角式插座



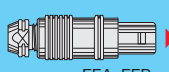
EPL



EXP

塑料外壳型号 (第 70 页)

直式插头

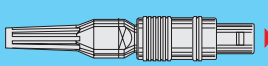


FFA, FFP

固定式插座



ERN



FFP



FFL

水密或真空密封型号 (第 72 页)

固定式插座



HGP



EWB

固定式双通



SWH

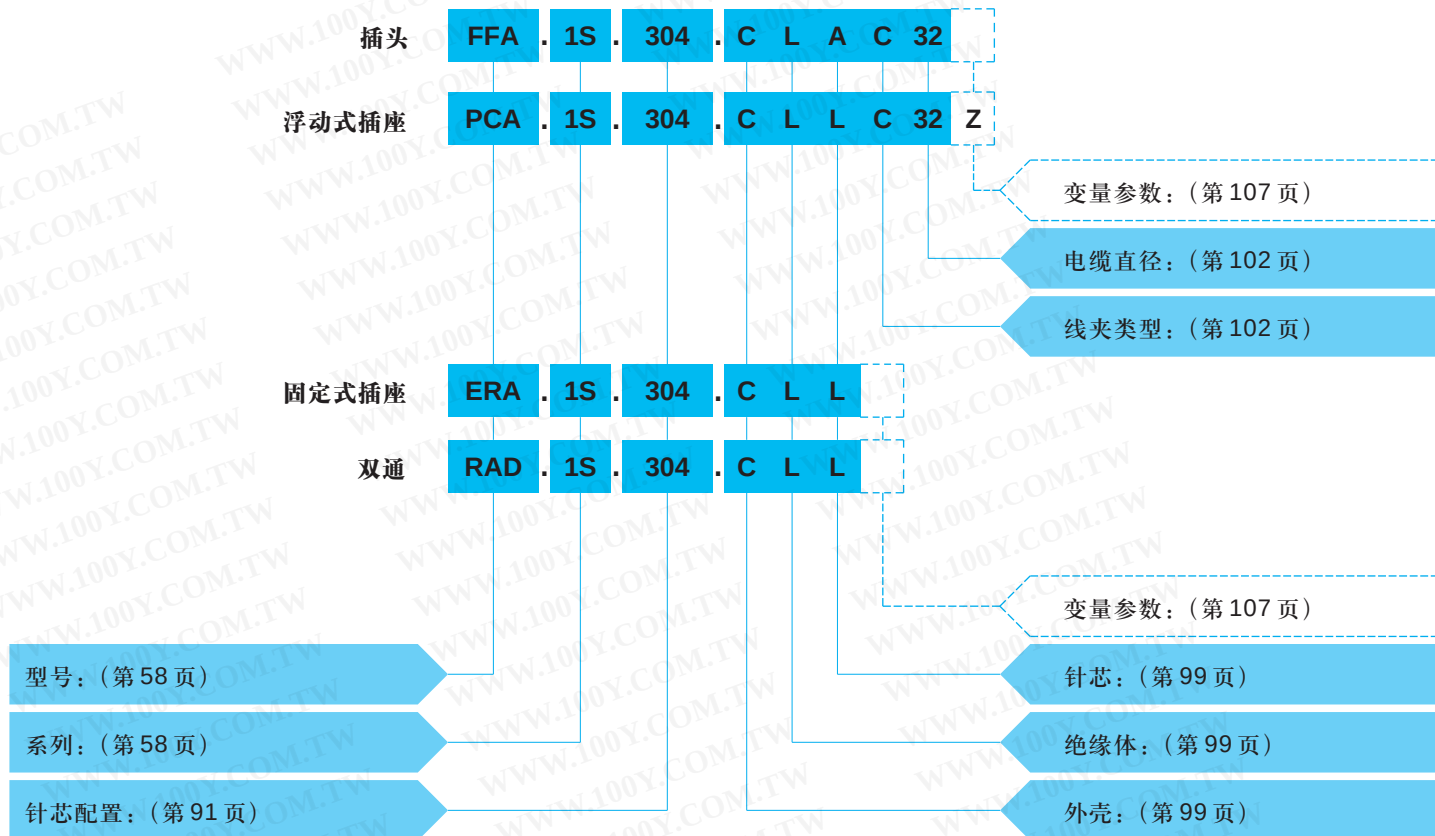


HCP



HGW

产品编号规则



产品编号举例

带线夹的直式插头：

FFA.1S.304.CLAC32 = 直式插头，带线夹，1S 系列，多芯类型，4 芯，黄铜镀铬外壳，PEEK 绝缘体，2 个公针和 2 个母针，焊接型针芯，适用于外径 3.2mm 电缆的 C 型线夹

浮动式插座：

PCA.1S.304.CLLC32Z = 浮动式插座，带线夹，1S 系列，多芯类型，4 芯，黄铜镀铬外壳，PEEK 绝缘体，2 个母针和 2 个公针，焊接型针芯，适用于外径 3.2mm 电缆的 C 型线夹和带护套型的尾盖

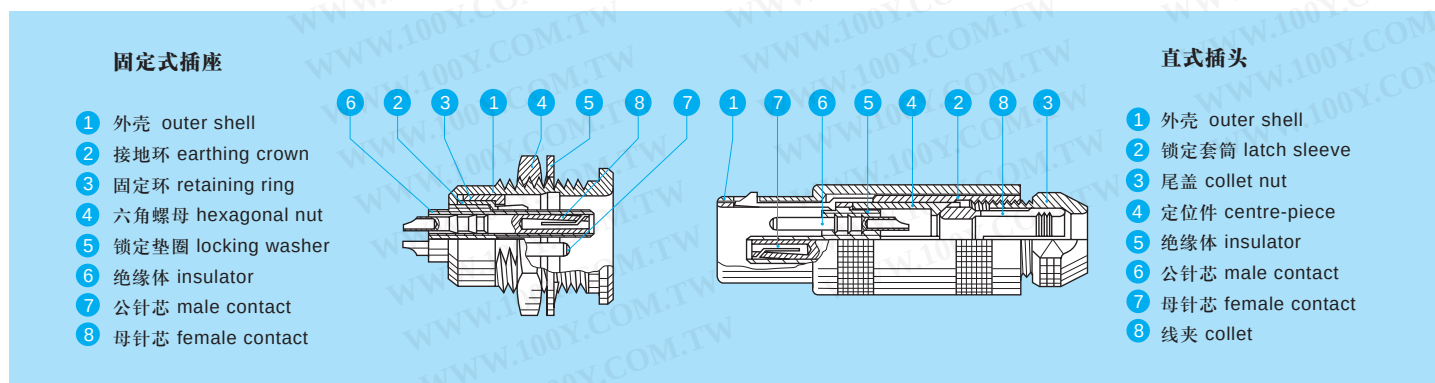
固定式插座：

ERA.1S.304.CLL = 固定式插座，螺母固定，1S 系列，多芯类型，4 芯，黄铜镀铬外壳，PEEK 绝缘体，2 个母针和 2 个公针，焊接型针芯

固定式双通：

RAD.1S.304.CLL = 直固定式双通，螺母固定，1S 系列，多芯类型，4 芯，黄铜镀铬外壳，PEEK 绝缘体，每端有 2 个母针和 2 个公针

产品剖面图





金属外壳型号

勝特力材料 886-3-5753170
勝特力电子(上海) 86-21-34970699
勝特力电子(深圳) 86-755-83298787
Http://www.100y.com.tw

技术特性

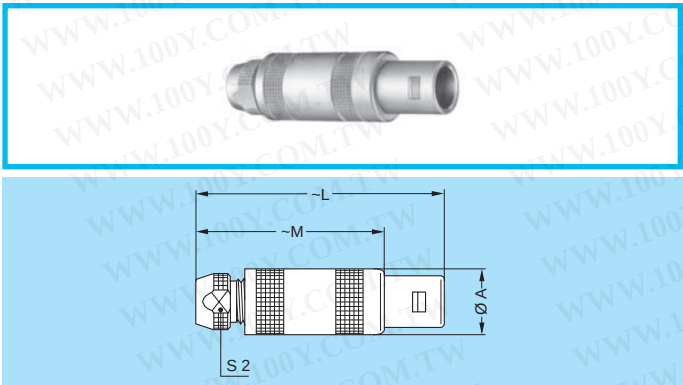
机械性能和环境因素

特性	参数	标准
插拔次数	> 5000 次	IEC60512-5 试验 9a
湿度	在 60°C 时最高达 95%	
温度范围	-55°C, +250°C	
抗振动性能	10-2000Hz, 15g	IEC60512-4 试验 6d
抗冲击性能	100g, 6ms	IEC60512-4 试验 6c
盐雾腐蚀试验	> 144 h	IEC60512-6 试验 11f
防护等级 (插合时)	IP 50	IEC60529
环境实验	55/175/21	IEC60068-1

电气性能

特性	参数	标准
屏蔽效果	在 10MHz 下	> 75 dB
	在 1GHz 下	> 40 dB

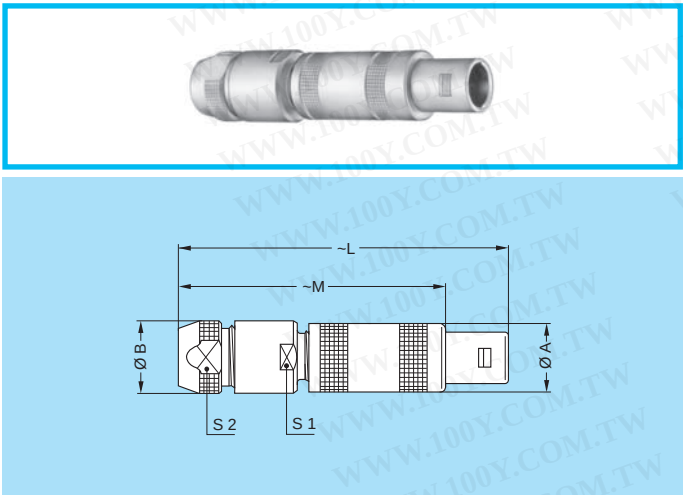
注：
以上数据是对外壳采用黄铜镀铬，绝缘体采用 PEEK 材料的 FFA 插头和 ERA 插座进行的各项试验得出。
详细的电气性能、材料和表面处理方法在第 171 页的《技术特性》章节中进行了介绍



FFA 直式插头，电缆线夹

编号		尺寸 (mm)			
型号	系列	A	L	M	S2
FFA	00	6.4	26.0	18.0	4.5
FFA	0S	9.0	34.5	24.5	6.5
FFA	1S	12.0	42.5	31.5	8.5
FFA	2S	14.8	52.0	40.0	11.0
FFA	3S	17.8	61.0	46.0	14.0
FFA	4S	24.8	77.0	59.0	19.0
FFA	5S	35.1	103.0	78.0	29.0
FFA	6S	46.0	106.0	81.0	38.0

M1
电缆组装
见第 163 到 165 页

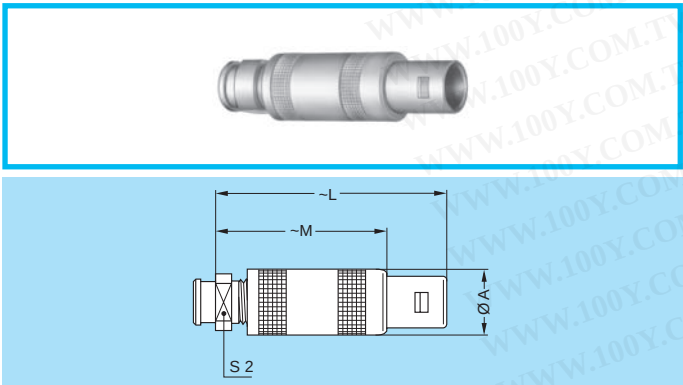


FFA 直式插头，加大尺寸电缆线夹¹⁾

编号		尺寸 (mm)					
型号	系列	A	B	L	M	S1	S2
FFA	00	6.4	8.0	34.0	26.0	7.0	6.5
FFA	0S	9.0	10.0	45.5	35.5	9.0	8.5
FFA	1S	12.0	13.0	57.0	46.0	12.0	11.0
FFA	2S	14.8	18.0	67.0	55.0	14.0	14.0
FFA	3S	17.8	21.0	85.0	70.0	19.0	19.0
FFA	4S	24.8	31.8	107.0	89.0	28.5	29.0
FFA	5S	35.1	41.8	138.0	113.0	37.5	38.0

M2 电缆组装见第 164 到 166 页

注：¹⁾ 对应 K 型线夹，在该型号上用加大尺寸线夹使其能使用大一号外壳适用的电缆。(见第 102 页)



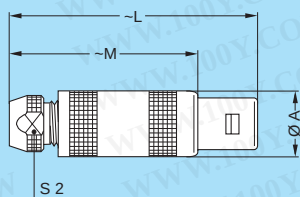
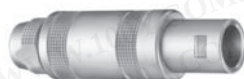
FFA 直式插头，电缆线夹和带护套型的尾盖¹⁾

编号		尺寸 (mm)			
型号	系列	A	L	M	S2
FFA	00	6.4	26.0	18.0	6
FFA	0S	9.0	34.5	24.5	7
FFA	1S	12.0	42.5	31.5	9
FFA	2S	14.8	52.0	40.0	12
FFA	3S	17.8	61.0	46.0	14
FFA	4S	24.8	77.0	59.0	20

M1
电缆组装
见第 163 和 164 页

注：
¹⁾ 订购时，在编号最后加一字母“Z”。
护套需另外订购 (见第 141 页)。

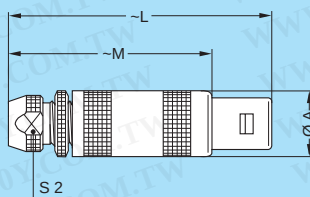
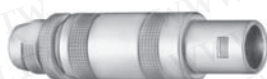
FFP 直式插头，电缆线夹和内部防转动构件



编号		尺寸 (mm)			
型号	系列	A	L	M	S2
FFP	0S	9.0	34.5	24.5	6.5
FFP	1S	12.0	42.5	31.5	8.5
FFP	2S	14.8	52.0	40.0	11.0
FFP	3S	17.8	61.0	46.0	14.0
FFP	4S	24.8	77.0	59.0	19.0

M1 电缆组装见第 163 和 164 页

FFB 直式插头，电缆线夹和安全锁定环

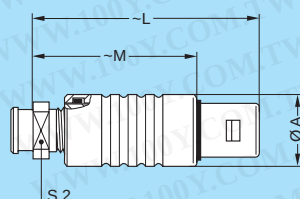
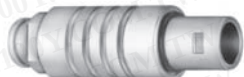


编号		尺寸 (mm)			
型号	系列	A	L	M	S2
FFB	0S	9.0	36.8	26.8	6.5
FFB	1S	12.0	45.0	34.0	8.5
FFB	2S	14.8	55.5	43.5	11.0
FFB	3S	17.8	65.0	50.0	14.0

M1 电缆组装见第 163 和 164 页

注：不适用于带护套型的尾盖

FFE 直式插头，电缆线夹，前密封和带护套型的尾盖¹⁾ (插合时防护等级为 IP54)

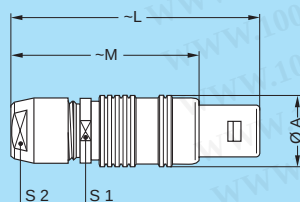


编号		尺寸 (mm)			
型号	系列	A	L	M	S2
FFE	00	7.4	26.0	18.0	6
FFE	0S	10.0	34.5	24.5	7
FFE	1S	13.0	42.5	31.5	9
FFE	2S	16.0	52.0	40.0	12
FFE	3S	19.0	61.0	46.0	14

M1 电缆组装见第 163 和 164 页

注：¹⁾ 订购时，在编号最后加一字母“Z”。
 护套需另外订购（见第 141 页）。

FFL 直式插头，锁定套筒上带平面， 电缆线夹和内部防转动构件

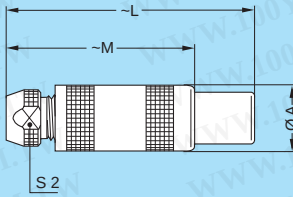
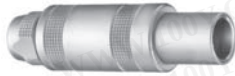


编号		尺寸 (mm)				
型号	系列	A	L	M	S1	S2
FFL	2S	15.0	49.0	37.0	13	12

M4 电缆组装见第 165 页

注：此型号适配 D 型或 M 型线夹，还能适配压接针芯。
 只提供多芯类型。

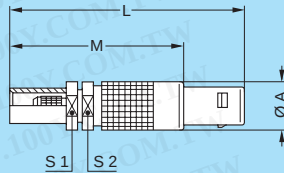
FFF 直式插头，电缆线夹，不带锁定装置



编号		尺寸 (mm)			
型号	系列	A	L	M	S2
FFF	00	6.4	26.0	18.0	4.5
FFF	0S	9.0	34.5	24.5	6.5
FFF	1S	12.0	42.5	31.5	8.5
FFF	2S	14.8	52.0	40.0	11.0

M1 电缆组装见第 163 和 164 页

FFS 直式插头，适用于电缆压接

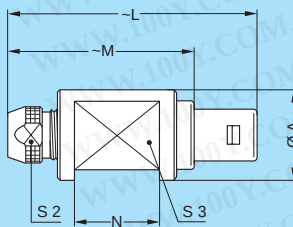
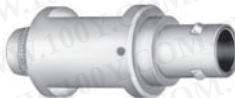


编号		尺寸 (mm)				
型号	系列	A	L	M	S1	S2
FFS	00	6.4	31	23	5.5	5.5

M5 电缆组装见第 163 页

注：与 00.250 系列类似，此型号只适配压接式尾盖 E31。

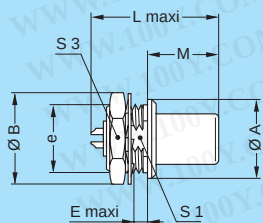
FZP 适用于遥控操作的直式插头，电缆线夹和内部防转动构件



编号		尺寸 (mm)					
型号	系列	A	L	M	N	S2	S3
FZP	1S	16	42.5	31.5	15	8.5	12
FZP	2S	24	52.0	40.0	21	11.0	18
FZP	3S	24	61.0	46.0	24	14.0	18
FZP	4S	35	77.0	59.0	30	19.0	28
FZP	5S	43	103.0	78.0	44	29.0	35
FZP	6S	60	106.0	81.0	44	38.0	50

M1 电缆组装见第 163 到 165 页

FAA 固定式插头，不带锁定装置，螺母固定



编号		尺寸 (mm)								
型号	系列	A	B	e	E	L	L ¹⁾	M	S1	S3
FAA	00	8	10.2	M7x0.5	2.0	-	15.5	9.0	6.3	9
FAA	0S	10	12.4	M9x0.6	2.0	18.5	18.0	11.2	8.2	11
FAA	1S	14	15.8	M12x1.0	2.5	22.5	21.7	12.5	10.5	14
FAA	2S	18	19.2	M15x1.0	4.0	25.0	25.3	13.8	13.5	17
FAA	3S	22	25.0	M18x1.0	4.0	31.0	29.0	17.0	16.5	22
FAA	4S	28	34.0	M25x1.0	2.5	35.5	39.0	20.5	23.5	30
FAA	5S	40	40.0	M35x1.0	2.5	45.0	-	28.0	33.5	-
FAA	6S	54	54.0	M48x1.5	2.5	45.0	-	28.0	-	-

P1 面板开口尺寸见第 152 页

P2 6S 系列面板开口尺寸见第 152 页

注：¹⁾ 单芯型号

FLA 90°弯角式插头，电缆线夹

编号		尺寸 (mm)						
型号	系列	A	A1	H	L	M	S1	S2
FLA	00	9	-	16.0	17.5	9.5	-	4.5
FLA	0S	13	13	24.5	23.0	13.0	8	6.5
FLA	1S	16	16	28.5	26.5	15.5	10	8.5
FLA	2S	20	20	37.0	31.0	19.0	13	11.0
FLA	3S	21	21	44.0	38.5	23.5	15	14.0
FLA	4S	28	28	56.0	49.0	31.0	20	19.0
FLA	5S	-	37	76.5	65.0	40.0	30	29.0
FLA	6S	-	48	94.0	81.0	56.0	40	38.0

M3 电缆组装见第 163 到 165 页

注：
图1适用于单芯类型，图2适用于多芯类型。

● 最高工作温度：120℃

FLS 90°弯角式插头，适用于电缆压接

编号		尺寸 (mm)			
型号	系列	A	H	L	M
FLS	00	9	16	17.5	9.5

M6 电缆组装见第 163 页

注：与 00.250 系列类似，此型号只适配压接式尾盖 E31。

● 最高工作温度：120℃

ERA 固定式插座，螺母固定

编号		尺寸 (mm)								
型号	系列	A	B	e	E	L	L ¹⁾	M	S1	S3
ERA	00	8	10.2	M7x0.5	5.5	-	14.5	1.0	6.3	9
ERA	0S	10	12.4	M9x0.6	7.0	17.5	18.0	1.2	8.2	11
ERA	1S	14	15.8	M12x1.0	7.5	20.2	20.5	1.5	10.5	14
ERA	2S	18	19.2	M15x1.0	8.5	24.5	23.5	1.8	13.5	17
ERA	3S	22	25.0	M18x1.0	11.5	29.0	27.5	2.0	16.5	22
ERA	4S	28	34.0	M25x1.0	12.0	34.0	33.5	2.5	23.5	30
ERA	5S	40	40.0	M35x1.0	15.5	45.0	78.5	3.0	33.5	-
ERA	6S	54	54.0	M48x1.5	16.0	45.0	-	3.5	45.5	-

P1 面板开口尺寸见第 152 页

注：¹⁾ 单芯型号

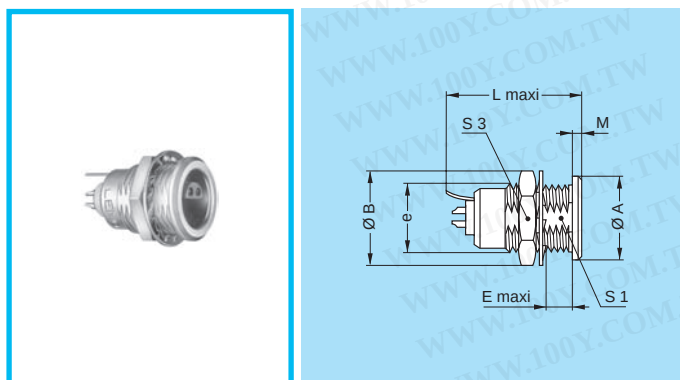
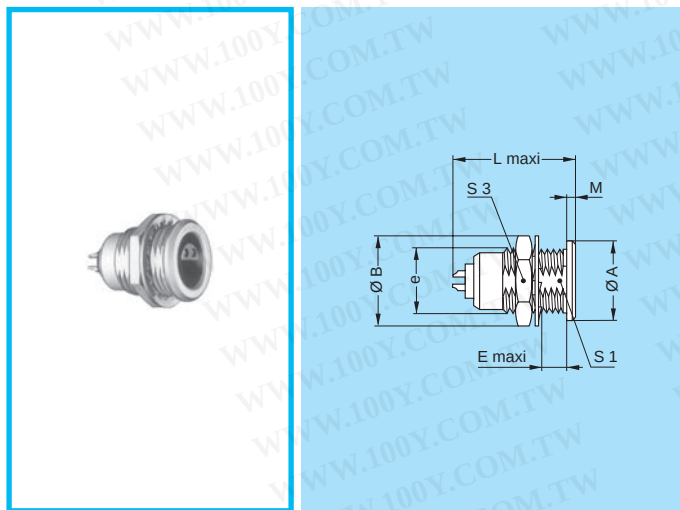
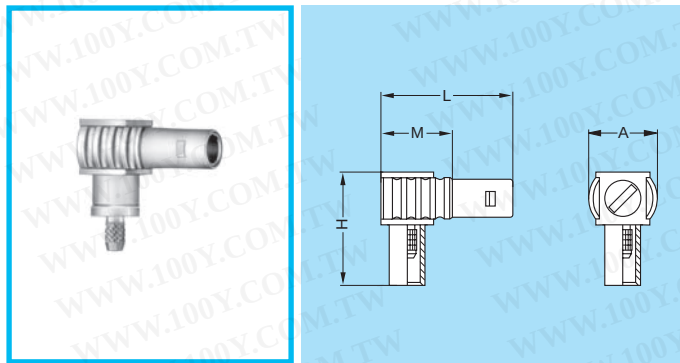
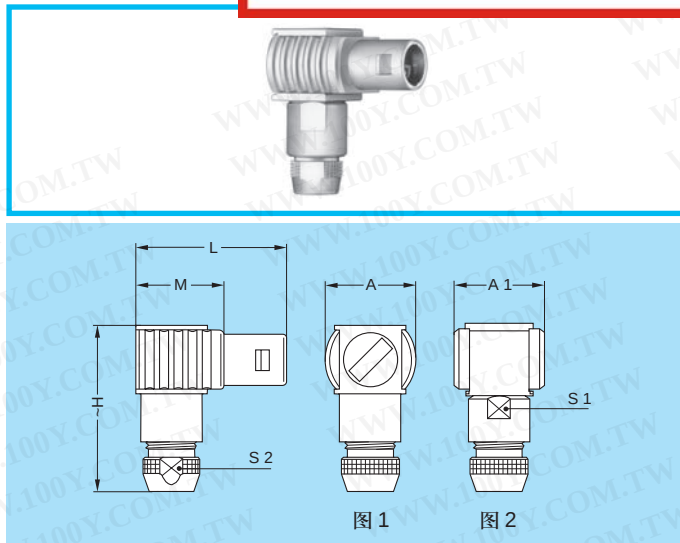
注：5S 系列出厂时配有锥形垫圈和圆螺母。
6S 系列出厂时配有圆螺母，不配有锁定垫圈。

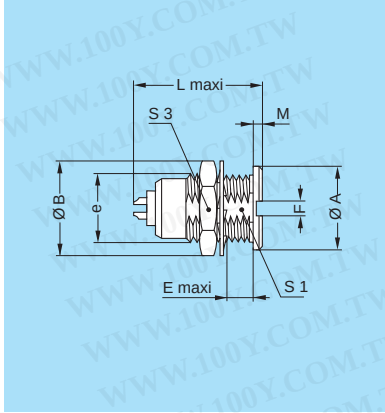
ERN 固定式插座，螺母固定，带接地脚

编号		尺寸 (mm)								
型号	系列	A	B	e	E	L	L ¹⁾	M	S1	S3
ERN	0S	10	12.4	M9x0.6	7.0	19.3	19.3	1.2	8.2	11
ERN	1S	14	15.8	M12x1.0	7.5	22.4	22.4	1.5	10.5	14
ERN	2S	18	19.2	M15x1.0	8.5	26.3	26.3	1.8	13.5	17
ERN	3S	22	25.0	M18x1.0	11.5	29.8	29.8	2.0	16.5	22

P1 面板开口尺寸见第 152 页

注：¹⁾ 单芯型号



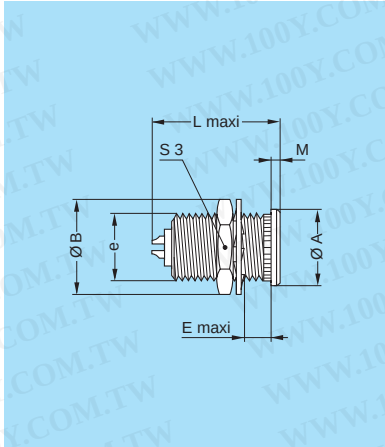


ERC 固定式插座，螺母固定，法兰开槽

编号		尺寸 (mm)									
型号	系列	A	B	e	E	F	L	L ¹⁾	M	S1	S3
ERC	00	8	10.2	M7x0.5	5.5	1.6	-	14.5	1.0	6.3	9
ERC	0S	10	12.4	M9x0.6	7.0	2.0	17.5	18.0	1.2	8.2	11
ERC	1S	14	15.8	M12x1.0	7.5	2.5	20.2	20.5	1.5	10.5	14

P1 面板开口尺寸见第 152 页

注: ¹⁾ 单芯型号

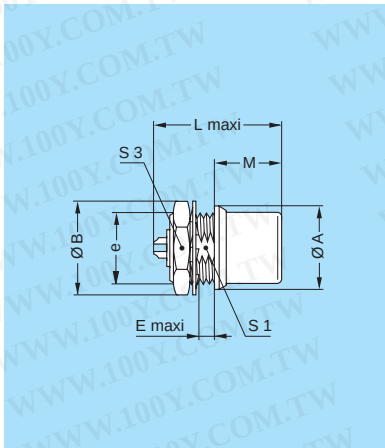


ERS 固定式插座，螺母固定，长螺纹外壳不带平面

编号		尺寸 (mm)							
型号	系列	A	B	e	E	L	L ¹⁾	M	S3
ERS	0S	10	12.4	M9x0.6	10.5	17.5	18.0	1.2	11

P2 面板开口尺寸见第 152 页

注: ¹⁾ 单芯型号



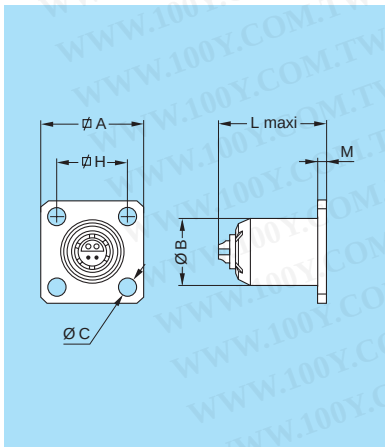
EHP 固定式插座，螺母固定，凸出式外壳

编号		尺寸 (mm)								
型号	系列	A	B	e	E	L	L ¹⁾	M	S1	S3
EHP	0S	10	12.4	M9x0.6	2.0	20.5	18.0	12.5	8.2	11
EHP	1S	14	15.8	M12x1.0	3.5	20.2	20.5	12.0	-	14
EHP	3S	22	25.0	M18x1.0	4.0	29.0	29.0	18.7	-	22

P1 0S 系列面板开口尺寸见第 152 页

P2 面板开口尺寸见第 152 页

注: ¹⁾ 单芯型号



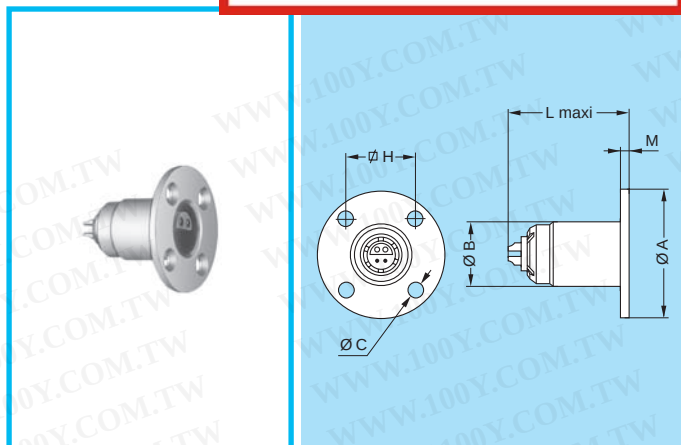
EBD 带方形法兰的固定式插座，螺丝固定

编号		尺寸 (mm)						
型号	系列	A	B	C	H	L	L ¹⁾	M
EBD	2S	22	15	3.2	15.5	24.5	26	2

P6 面板开口尺寸见第 152 页

注: ¹⁾ 单芯型号

EBS 帶圓形法兰的固定式插座，螺丝固定

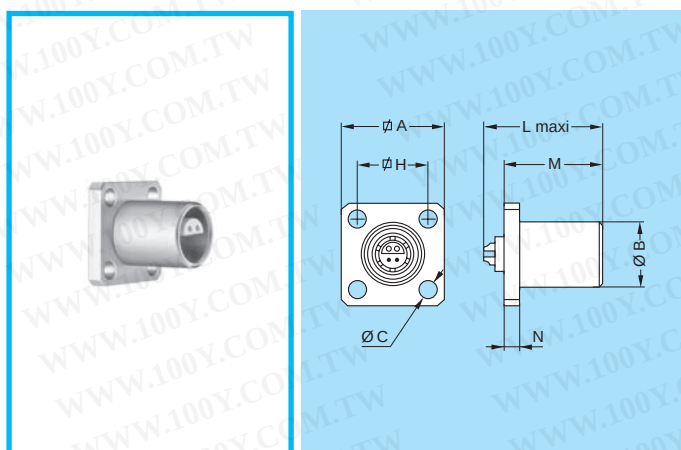


编号		尺寸 (mm)						
型号	系列	A	B	C	H	L	L ¹⁾	M
EBS	1S	22	11	2.5	12.4	20.2	20.5	1.5

P7 面板开口尺寸见第 152 页

注: ¹⁾ 单芯型号

EBC 帶方形法兰的固定式插座，凸出式外壳，螺丝固定

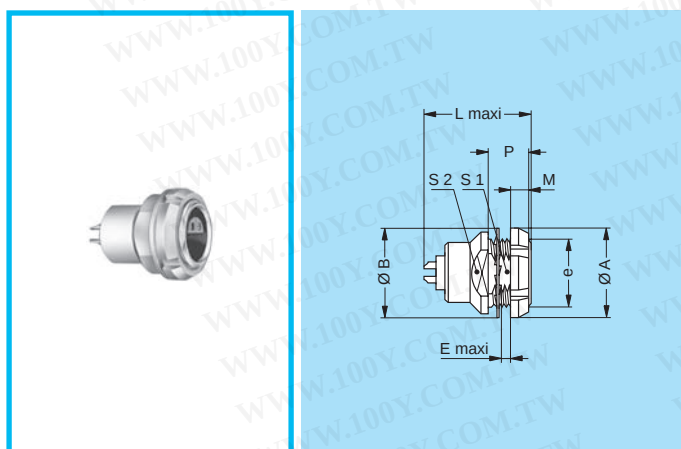


编号		尺寸 (mm)							
型号	系列	A	B	C	H	L	L ¹⁾	M	N
EBC	1S	18	11.5	3.2	12.7	20.2	20.5	16.5	2.8
EBC	2S	22	15.0	3.2	15.5	24.5	23.5	18.5	4.4
EBC	3S	25	18.0	3.2	18.0	29.0	27.5	23.5	3.0
EBC	5S	45	40.0	4.3	36.8	45.0	78.5	15.0	4.0

P6 面板开口尺寸见第 152 页

注: ¹⁾ 单芯型号

EEP 固定式插座，螺母固定 (后面板安装)

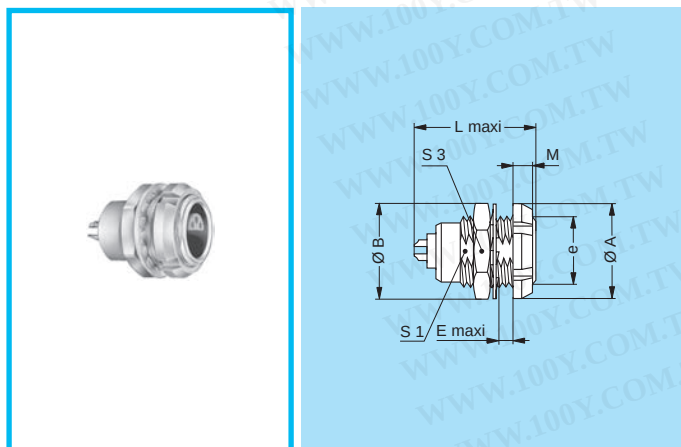


编号		尺寸 (mm)									
型号	系列	A	B	e	E	L	L ¹⁾	M	P	S1	S2
EEP	2S	20	19.5	M15x1	3.5	24.5	23.5	3.5	9	13.5	15

P1 面板开口尺寸见第 152 页

注: ¹⁾ 单芯型号

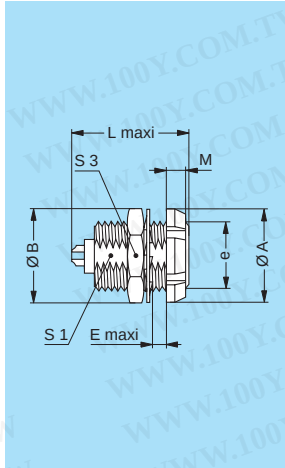
ERD 固定式插座，两个螺母 (后面板安装)



编号		尺寸 (mm)									
型号	系列	A	B	e	E	L	L ¹⁾	M	S1	S3	
ERD	0S	12	12.4	M9x0.6	5.5	17.5	18.0	2.5	8.2	11	
ERD	1S	16	15.8	M12x1.0	6.0	20.2	20.5	3.5	10.5	14	
ERD	2S	20	19.2	M15x1.0	6.5	24.5	23.5	3.5	13.5	17	
ERD	3S	24	25.0	M18x1.0	9.0	29.0	27.5	4.5	16.5	22	
ERD	4S	30	34.0	M25x1.0	10.0	34.0	33.5	4.5	23.5	30	

P1 面板开口尺寸见第 152 页

注: ¹⁾ 单芯型号
 3S和4S系列出厂时配有圆锥螺母。

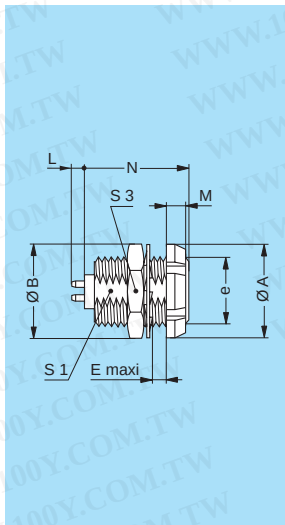


ECP 固定式插座，两个螺母，长螺纹外壳（后面板安装）

编号		尺寸 (mm)								
型号	系列	A	B	e	E	L	L ¹⁾	M	S1	S3
ECP	0S	12	12.4	M9x0.6	8.5	17.5	18.5	2.5	8.2	11
ECP	1S	16	15.8	M12x1.0	10.0	20.2	21.5	3.5	10.5	14
ECP	2S	20	19.2	M15x1.0	11.0	24.5	26.0	3.5	13.5	17
ECP	3S	24	25.0	M18x1.0	14.0	29.0	30.0	4.5	16.5	22

P1 面板开口尺寸见第 152 页

注：¹⁾ 单芯型号
 3S 系列出厂时配有圆锥螺母。



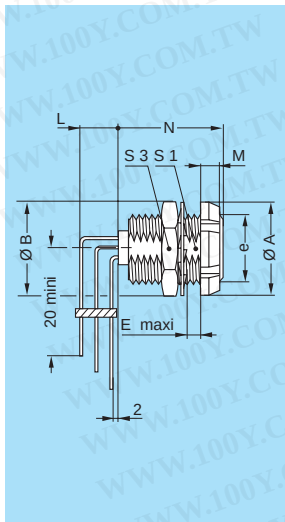
ECP 固定式插座，两个螺母，长螺纹外壳，适用于印制线路板的直针芯（后面板安装）

编号		尺寸 (mm)							
型号	系列	A	B	e	E	M	N	S1	S3
ECP	0S	12	12.4	M9x0.6	8.5	2.5	15.0	8.2	11
ECP	1S	16	15.8	M12x1.0	10.0	3.5	17.5	10.5	14
ECP	2S	20	19.2	M15x1.0	11.0	3.5	20.0	13.5	17
ECP	3S	24	25.0	M18x1.0	14.0	4.5	24.0	16.5	22

P1 面板开口尺寸见第 152 页

P21 PCB 板钻孔参数见第 159 页

注：此针芯类型适用于所有的 E●● 插座型号。见第 159 页类型表。
 长度“L”取决于针芯的数量，见第 159 页的 PCB 板钻孔参数。
 3S 系列出厂时配有圆锥螺母。



ECP 固定式插座，两个螺母，长螺纹外壳，适用于印制线路板的 90° 弯角针芯（后面板安装）

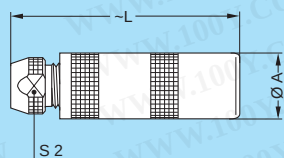
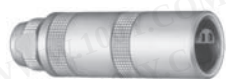
编号		尺寸 (mm)							
型号	系列	A	B	e	E	M	N	S1	S3
ECP	0S	12	12.4	M9x0.6	8.5	2.5	15.0	8.2	11
ECP	1S	16	15.8	M12x1.0	10.0	3.5	17.5	10.5	14
ECP	2S	20	19.2	M15x1.0	11.0	3.5	20.0	13.5	17
ECP	3S	24	25.0	M18x1.0	14.0	4.5	24.0	16.5	22

P1 面板开口尺寸见第 152 页

P24 PCB 板钻孔参数见第 160 页

注：此针芯类型适用于所有的 E●● 插座型号。见第 160 页类型表。
 长度“L”取决于针芯的数量，见第 160 页的 PCB 板钻孔参数。
 3S 系列出厂时配有圆锥螺母。

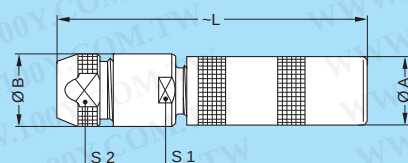
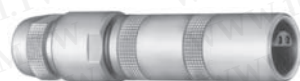
PCA 浮动式插座，电缆线夹



编号		尺寸 (mm)		
型号	系列	A	L	S2
PCA	00	6.5	25.0	4.5
PCA	0S	8.9	33.5	6.5
PCA	1S	11.9	40.5	8.5
PCA	2S	14.8	50.0	11.0
PCA	3S	17.8	59.0	14.0
PCA	4S	24.8	75.0	19.0
PCA	5S	34.7	99.0	29.0
PCA	6S	46.0	102.0	38.0

M1 电缆组装见第 163 到 165 页

PCA 浮动式插座，加大尺寸电缆线夹¹⁾

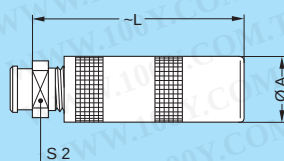


编号		尺寸 (mm)				
型号	系列	A	B	L	S1	S2
PCA	00	6.5	8.0	33.0	7.0	6.5
PCA	0S	8.9	10.0	44.5	9.0	8.5
PCA	1S	11.9	13.0	55.0	12.0	11.0
PCA	2S	14.8	18.0	65.0	14.0	14.0
PCA	3S	17.8	21.0	83.0	19.0	19.0
PCA	4S	24.8	31.8	105.0	28.5	29.0

M2 电缆组装见第 164 和 166 页

注：¹⁾ 对应K型线夹，在该型号上用加大尺寸线夹使其能使用大一号外壳适用的电缆。(见第 102 页)

PCA 浮动式插座，电缆线夹和带护套型的尾盖¹⁾

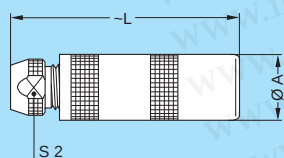


编号		尺寸 (mm)		
型号	系列	A	L	S2
PCA	00	6.5	25.0	6
PCA	0S	8.9	33.5	7
PCA	1S	11.9	40.5	9
PCA	2S	14.8	50.0	12
PCA	3S	17.8	59.0	14
PCA	4S	24.8	75.0	20

M1
 电缆组装
 见第 163 和 164 页

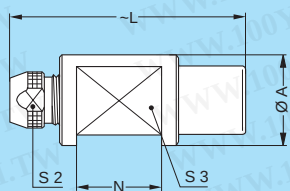
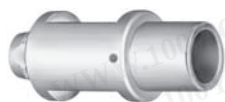
注：¹⁾ 订购时，在编号最后加一字母“Z”。
 护套需另外订购 (见第 141 页)。

PCP 浮动式插座，电缆线夹和内部防转动构件



编号		尺寸 (mm)		
型号	系列	A	L	S2
PCP	0S	8.9	33.5	6.5
PCP	1S	11.9	40.5	8.5
PCP	2S	14.8	50.0	11.0
PCP	3S	17.8	59.0	14.0
PCP	4S	24.8	75.0	19.0

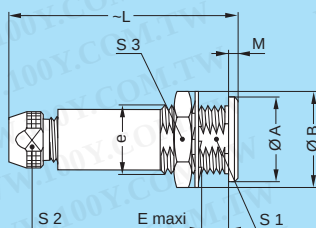
M1 电缆组装见第 163 和 164 页



PZP 适用于遥控操作的浮动式插座，电缆线夹和内部防转动构件

编号		尺寸 (mm)				
型号	系列	A	L	N	S2	S3
PZP	1S	16	40.5	15	8.5	12
PZP	2S	24	50.0	21	11.0	18
PZP	3S	24	59.0	24	14.0	18

M1 电缆组装见第 163 和 164 页



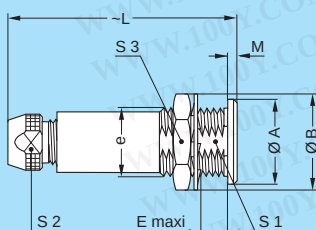
PSA 固定式插座，螺母固定，电缆线夹

编号		尺寸 (mm)								
型号	系列	A	B	e	E	L	M	S1	S2	S3
PSA	00	8	10.2	M7x0.5	5.5	25.0	1.0	6.3	4.5	9
PSA	0S	10	12.4	M9x0.6	7.0	33.5	1.2	8.2	6.5	11
PSA	1S	14	15.8	M12x1.0	7.5	40.5	1.5	10.5	8.5	14
PSA	2S	18	19.2	M15x1.0	8.5	50.0	1.8	13.5	11.0	17
PSA	3S	22	25.0	M18x1.0	11.5	59.0	2.0	16.5	14.0	22
PSA	4S	28	34.0	M25x1.0	12.0	75.0	2.5	23.5	19.0	30
PSA	5S	40	40.0	M35x1.0	15.5	99.0	3.0	33.5	29.0	-
PSA	6S	54	54.0	M48x1.5	16.0	102.0	3.5	45.5	38.0	-

M1 电缆组装见第 163 到 165 页

P1 面板开口尺寸见第 152 页

注：5S 系列出厂时配有锥形垫圈和圆螺母。
6S 系列出厂时配有圆螺母，不配有锁定垫圈。

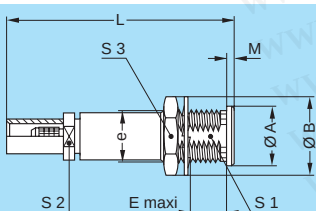


PSP 固定式插座，螺母固定，电缆线夹和内部防转动构件

编号		尺寸 (mm)								
型号	系列	A	B	e	E	L	M	S1	S2	S3
PSP	0S	10	12.4	M9x0.6	7.0	33.5	1.2	8.2	6.5	11
PSP	1S	14	15.8	M12x1.0	7.5	40.5	1.5	10.5	8.5	14
PSP	2S	18	19.2	M15x1.0	8.5	50.0	1.8	13.5	11.0	17
PSP	3S	22	25.0	M18x1.0	11.5	59.0	2.0	16.5	14.0	22
PSP	4S	28	34.0	M25x1.0	12.0	75.0	2.5	23.5	19.0	30

M1 电缆组装见第 163 和 164 页

P1 面板开口尺寸见第 152 页



PSS 固定式插座，螺母固定，适用于电缆压接

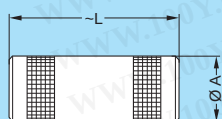
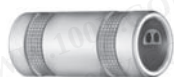
编号		尺寸 (mm)								
型号	系列	A	B	e	E	L	M	S1	S2	S3
PSS	00	8	10.2	M7x0.5	5.5	30	1	6.3	5.5	9

M5 电缆组装见第 163 页

P1 面板开口尺寸见第 152 页

注：与 00.250 系列类似，此型号只适配压接式尾盖 E31。

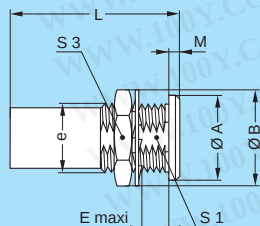
RMA 浮动式双通



编号		尺寸 (mm)	
型号	系列	A	L
RMA	00	6.4	22.0
RMA	0S	8.9	25.0
RMA	1S	11.9	28.5
RMA	2S	14.8	31.5
RMA	3S	17.8	38.5
RMA	4S	24.8	46.5
RMA	5S	34.7	60.5

注：为保证针芯的正确定位，见第110页选择相应的插头和针芯配置。

RAD 固定式双通，螺母固定



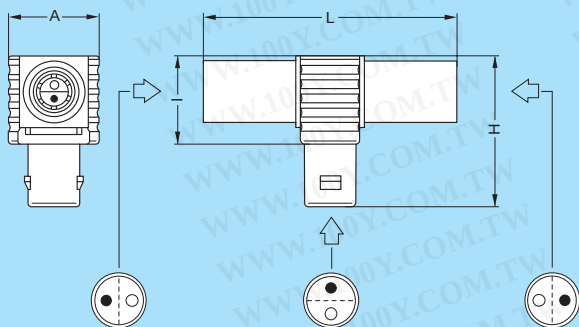
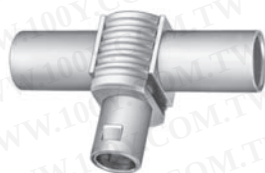
编号		尺寸 (mm)							
型号	系列	A	B	e	E	L	M	S1	S2
RAD	00	8	10.2	M7x0.5	5.5	22.0	1.0	6.3	9
RAD	0S	10	12.4	M9x0.6	7.0	25.0	1.2	8.2	11
RAD	1S	14	15.8	M12x1.0	7.5	28.5	1.5	10.5	14
RAD	2S	18	19.2	M15x1.0	8.5	31.5	1.8	13.5	17
RAD	3S	22	25.0	M18x1.0	11.5	38.5	2.0	16.5	22
RAD	4S	28	34.0	M25x1.0	12.0	46.5	2.5	-	30
RAD	5S	40	40.0	M35x1.0	15.5	60.5	3.0	-	-

P1 面板开口尺寸见第152页

P2 4S和5S系列面板开口尺寸见第152页

注：5S系列出厂时配有锥形垫圈和圆螺母。

FTA T型插头，带两个平行插座



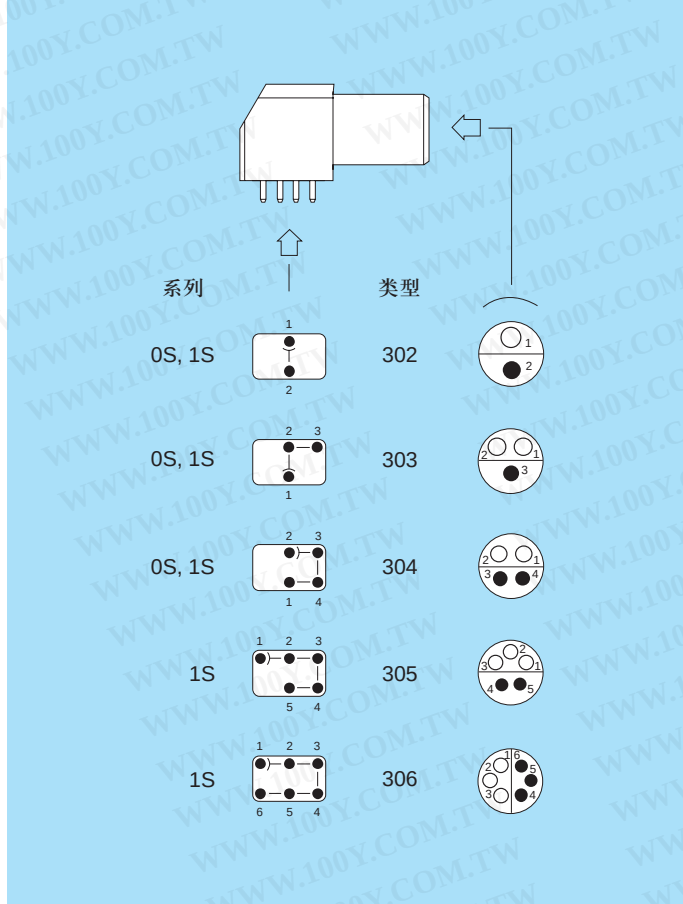
编号		尺寸 (mm)			
型号	系列	A	H	I	L
FTA	00	9	17.5	9.5	30
FTA	0S	13	23.0	13.0	38
FTA	1S	16	26.5	16.5	45
FTA	3S	21	38.5	23.5	64

注：多芯型仅适用于2个针芯(302类型)。

弯角式插座型号

技术特性

类型



材料和表面处理

构件	材料	表面处理 (μm)		
		Cu	Ni	Au
外壳	PPS 1)	-	-	-
金属部件	黄铜	0.5	3	-
接地环	黄铜	0.5	3	-
绝缘体	PEEK	-	-	-
母针芯	青铜	0.5	3	1.5

注: 1) 不适用于所有型号。

表面处理标准如下:

- 镍 (Ni): FS QQ-N-290A - 金 (Au): ISO 4523

电气性能

型号	系列	类型	测试电压 (kV rms) ¹⁾	额定电流 (A)
EPL	0S	302-303-304	1.20	4.5
EXP	0S			
EPL	1S			
EXP	1S	305-306	0.70	4.5
EPL	1S			
EXP	1S			

注:

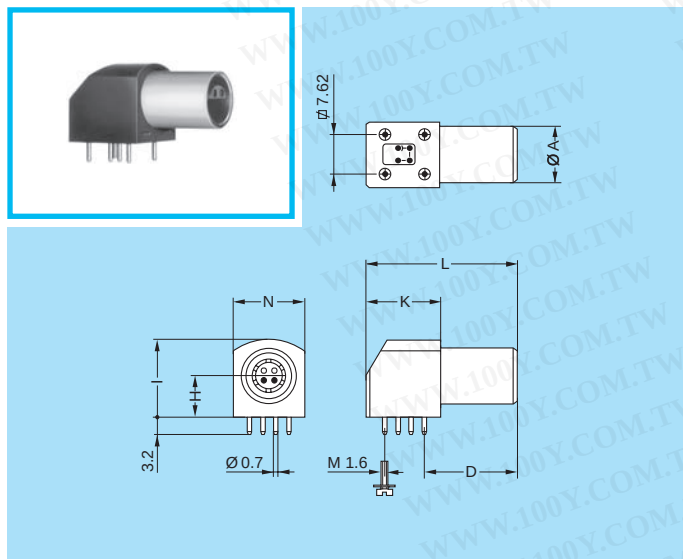
¹⁾ 见第 178 页计算方法、注意事项和推荐标准。

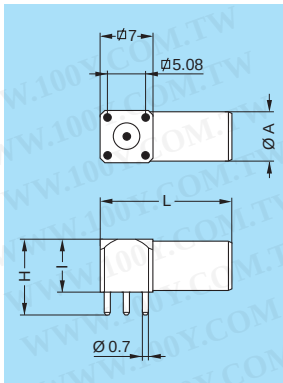
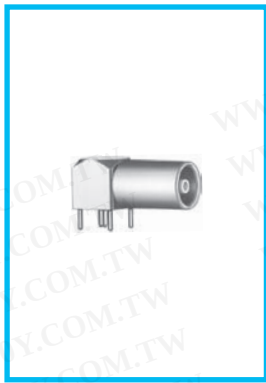
EPL 适用于印制线路板的 90° 弯角式插座 (焊接或螺丝固定)

编号	尺寸 mm						
	A	D	H	I	K	L	N
EPL.0S.302.HLN	9	14.6	6.7	12.7	13.3	25	11.7
EPL.0S.303.HLN							
EPL.0S.304.HLN							
EPL.1S.302.HLN	11	16.6	7.5	14.0	13.3	27	12.6
EPL.1S.303.HLN							
EPL.1S.304.HLN							
EPL.1S.305.HLN							
EPL.1S.306.HLN							

注: 若用 4 个螺丝 (M1.6) 替代 4 个接地柱, 需在型号最后加 "S"。
(例如: EPL.1S.303.HLNS)

P22 PCB 板钻孔参数见第 160 页



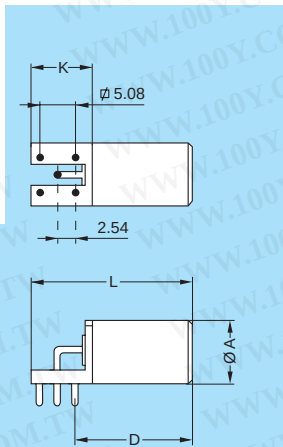


EPL 适用于印制线路板的 90° 弯角式插座

编号	尺寸 (mm)		
	A	H	I
EPL.00.113.NLN	6.8	10	7

P23 PCB板钻孔参数见第160页

勝特力材料 886-3-5753170
勝特力电子(上海) 86-21-34970699
勝特力电子(深圳) 86-755-83298787
[Http://www.100y.com.tw](http://www.100y.com.tw)

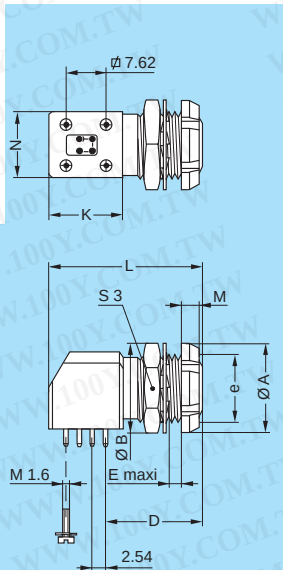
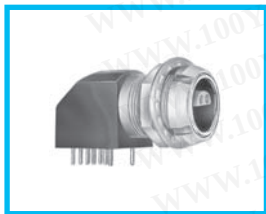


EPL 适用于印制线路板的 90° 弯角式插座

编号	尺寸 (mm)						
	A	D	H	I	K	L	N
EPL.0S.116.DTL	8.8	16	12	9	7.7	22.7	9

注：仅适于单芯型号

P23 PCB板钻孔参数见第160页



EXP 适用于印制线路板的 90° 弯角式插座，两个螺母 (焊接或螺丝固定)

编号	尺寸 (mm)											
	A	B	D	e	E	H	I	K	L	M	N	S3
EXP.0S.302.HLN												
EXP.0S.303.HLN	12	12.4	14.6	M9x0.6	6.0	6.7	12.7	13.3	25	2.5	11.7	11
EXP.0S.304.HLN												
EXP.1S.302.HLN												
EXP.1S.303.HLN												
EXP.1S.304.HLN	14	15.0	16.6	M11x0.5	7.5	7.5	14.0	13.3	27	3.5	12.6	13
EXP.1S.305.HLN												
EXP.1S.306.HLN												

注：若用4个螺丝 (M1.6) 替代4个接地柱，需在型号最后加“S”。
(例如：EXP.1S.303.HLNS)

P2 0S系列面板开口尺寸见第152页

P10 1S系列面板开口尺寸见第152页

P22 PCB板钻孔参数见第160页

水密或真空密封型号

此类插座和双通型号可使设备达到 IP68 保护等级 (按 IEC60529 标准)。他们与同系列的插头完全兼容, 因而被广泛应用于手提无线设备、军工、实验设备和航空领域等。

此类型号是在产品编号最后加一个字母“P”以示区别。
此类型号大多数都有真空密封型。若是真空密封型号, 需在字母“P”后再多加一个字母“V”。(需要的话, 可提供检验报告)

此类型号的密封材料为环氧树脂。

勝特力材料 886-3-5753170
勝特力电子(上海) 86-21-34970699
勝特力电子(深圳) 86-755-83298787
[Http://www.100y.com.tw](http://www.100y.com.tw)

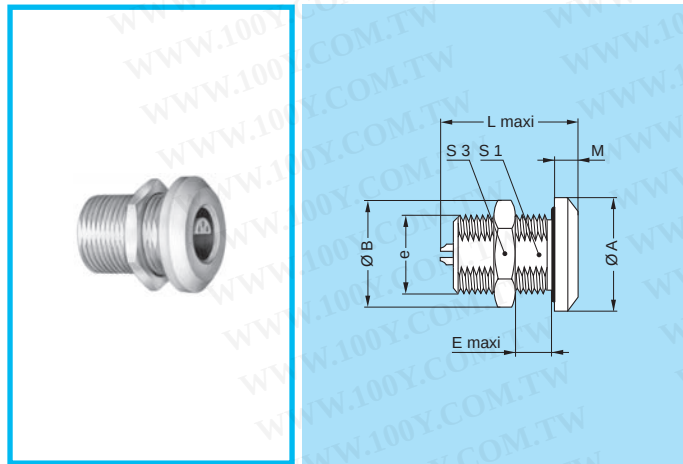
技术特性

机械性能和环境因素

特性	参数	标准	特性	参数	标准
插拔次数	> 5000 次	IEC60512-5 试验 9a	最大工作压强 ²⁾	0S	60 bars
湿度	在 60°C 时最高达 95%			1S	60 bars
温度范围 (0S 到 1S)	-20°C, +100°C			2S	40 bars
温度范围 (2S 到 6S)	-20°C, +80°C			3S	30 bars
盐雾腐蚀试验	> 144h	IEC60512-6 试验 11f		4S	15 bars
环境实验	20/80/21	IEC60068-1		5S	5 bars
泄漏率 (He) ¹⁾	< 10 ⁻⁷ mbar.l.s ⁻¹	IEC60512-7 试验 14b		6S	5 bars

注: ¹⁾ 仅适用于真空密封型

注: ²⁾ 此参数对应的是组装后的插座能承受的最大压强



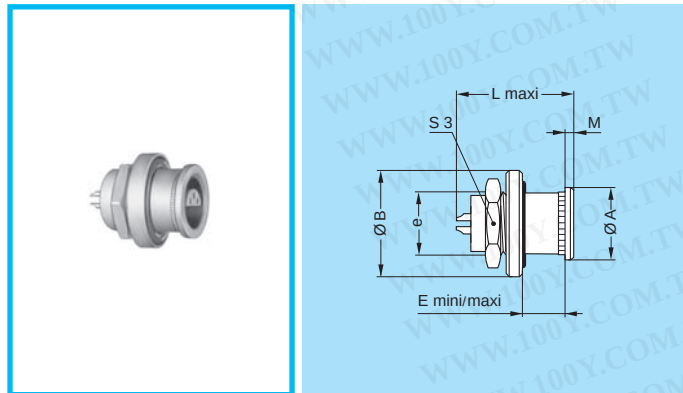
HGP 固定式插座, 螺母固定, 水密或真空密封

编号		尺寸 (mm)								
型号	系列	A	B	e	E	L	L ¹⁾	M	S1	S3
HGP	0S	18	15.8	M12x1.0	11.5	20.5	21.5	4.0	10.5	14
HGP	1S	20	19.2	M14x1.0	15.5	25.0	22.0	4.0	12.5	17
HGP	2S	20	21.5	M16x1.0	17.0	29.5	28.0	4.0	14.5	19
HGP	3S	28	27.0	M20x1.0	18.0	33.0	34.0	6.0	18.5	24
HGP	4S	34	34.0	M25x1.0	22.5	39.0	43.0	6.5	23.5	30
HGP	5S	45	40.0	M35x1.0	28.0	50.5	78.5	7.5	33.5	-
HGP	6S	58	54.0	M48x1.5	22.0	51.0	-	6.0	45.5	-

P3 面板开口尺寸见第 152 页

注: ¹⁾ 单芯型号

注: 5S 和 6S 系列出厂时配有圆螺母。

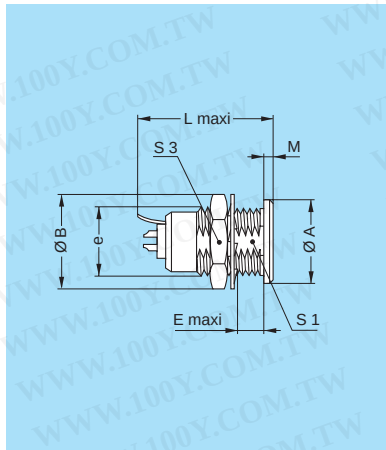


HGW 固定式插座, 螺母固定, 带后垫圈, 水密或真空密封

编号		尺寸 (mm)							
型号	系列	A	B	e	E _{mini}	E _{maxi}	L	M	S3
HGW	0S	10	15	M9x0.6	2.0	3.0	17.5	1.2	11
HGW	1S	14	18	M12x1.0	2.0	4.0	25.0	1.5	14

P11 面板开口尺寸见第 152 页

注: 真空密封型仅适用于 0S 系列。



ERN 固定式插座，螺母固定，带接地脚，
PEEK 或 POM 外壳

编号		尺寸 (mm)								
型号	系列	A	B	e	E	L	L ¹⁾	M	S1	S3
ERN	00	9	10.2	M7x0.5	5.5	-	14.5	1.0	6.3	9
ERN	0S	11	12.4	M9x0.6	7.0	19.3	19.3	1.2	8.2	11
ERN	1S	14	15.8	M12x1.0	7.5	22.4	22.4	1.5	10.5	14
ERN	2S	18	19.2	M15x1.0	8.5	26.3	26.3	2.0	13.5	17
ERN	3S	22	25.0	M18x1.0	11.5	29.8	29.8	2.0	16.5	22

P1 面板开口尺寸见第 152 页

注：¹⁾ 单芯型号

勝特力材料 886-3-5753170
勝特力电子(上海) 86-21-34970699
勝特力电子(深圳) 86-755-83298787
[Http://www.100y.com.tw](http://www.100y.com.tw)

水密或真空密封型号

此类插座和双通型号可使设备达到 IP68 保护等级 (按 IEC60529 标准)。他们与同系列的插头完全兼容, 因而被广泛应用于手提无线设备、军工、实验设备和航空领域等。

此类型号是在产品编号最后加一个字母“P”以示区别。
此类型号大多数都有真空密封型。若是真空密封型号, 需在字母“P”后再多加一个字母“V”。(需要的话, 可提供检验报告)

此类型号的密封材料为环氧树脂。

技术特性

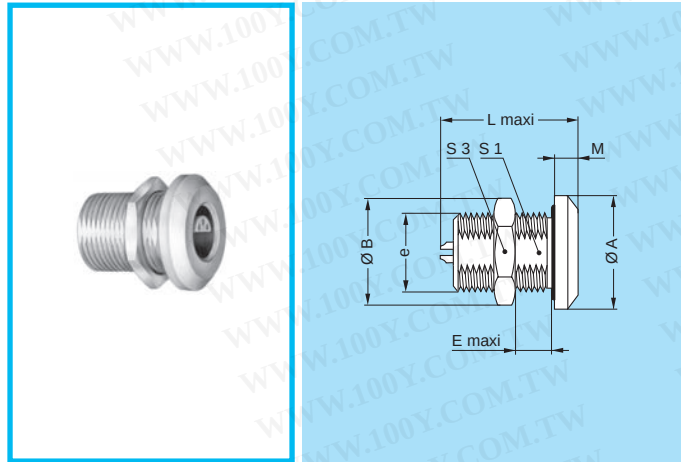
机械性能和环境因素

特性	参数	标准
插拔次数	> 5000 次	IEC60512-5 试验 9a
湿度	在 60°C 时最高达 95%	
温度范围 (0S 到 1S)	-20°C, +100°C	
温度范围 (2S 到 6S)	-20°C, +80°C	
盐雾腐蚀试验	> 144h	IEC60512-6 试验 11f
环境实验	20/80/21	IEC60068-1
泄漏率 (He) ¹⁾	< 10 ⁻⁷ mbar.l.s ⁻¹	IEC60512-7 试验 14b

注: ¹⁾ 仅适用于真空密封型

特性	参数	标准
最大工作压强 ²⁾	0S	60 bars
	1S	60 bars
	2S	40 bars
	3S	30 bars
	4S	15 bars
	5S	5 bars
	6S	5 bars
		IEC60512-7 试验 14d

注: ²⁾ 此参数对应的是组装后的插座能承受的最大压强



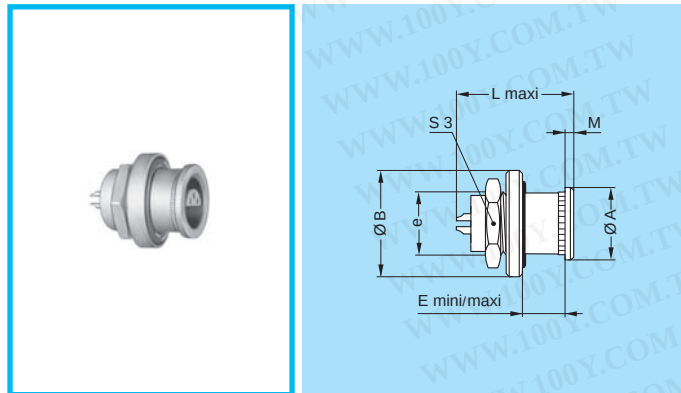
HGP 固定式插座, 螺母固定, 水密或真空密封

编号		尺寸 (mm)								
型号	系列	A	B	e	E	L	L ¹⁾	M	S1	S3
HGP	0S	18	15.8	M12x1.0	11.5	20.5	21.5	4.0	10.5	14
HGP	1S	20	19.2	M14x1.0	15.5	25.0	22.0	4.0	12.5	17
HGP	2S	20	21.5	M16x1.0	17.0	29.5	28.0	4.0	14.5	19
HGP	3S	28	27.0	M20x1.0	18.0	33.0	34.0	6.0	18.5	24
HGP	4S	34	34.0	M25x1.0	22.5	39.0	43.0	6.5	23.5	30
HGP	5S	45	40.0	M35x1.0	28.0	50.5	78.5	7.5	33.5	-
HGP	6S	58	54.0	M48x1.5	22.0	51.0	-	6.0	45.5	-

P3 面板开口尺寸见第 152 页

注: ¹⁾ 单芯型号

注: 5S 和 6S 系列出厂时配有圆螺母。

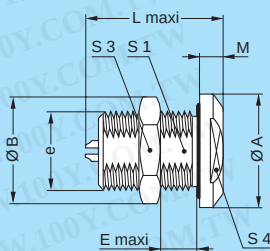


HGW 固定式插座, 螺母固定, 带后垫圈, 水密或真空密封

编号		尺寸 (mm)							
型号	系列	A	B	e	E _{mini}	E _{maxi}	L	M	S3
HGW	0S	10	15	M9x0.6	2.5	6.3	17.5	1.2	11
HGW	1S	14	18	M12x1.0	2.2	9.7	20.2	1.5	14

P11 面板开口尺寸见第 152 页

注: 真空密封型仅适用于 0S 系列。

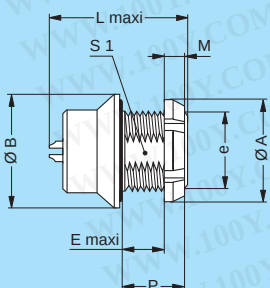


EWB 固定式插座，螺母固定，法兰端带两个平面，水密或真空密封

编号		尺寸 (mm)									
型号	系列	A	B	e	E	L	L ¹⁾	M	S1	S3	S4
EWB	0S	18	15.8	M12x1.0	11.0	20.5	-	4.0	10.5	14	14
EWB	1S	20	19.2	M14x1.0	15.5	25.5	25.5	4.0	12.5	17	16
EWB	2S	20	21.5	M16x1.0	17.0	28.0	26.5	4.0	14.5	19	16
EWB	4S	34	34.0	M25x1.0	22.5	43.0	-	6.5	23.5	30	27

P3 面板开口尺寸见第 152 页

注: ¹⁾ 单芯型号

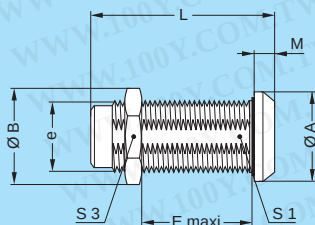


HCP 固定式插座，螺母固定，水密或真空密封 (后面板安装)

编号		尺寸 (mm)							
型号	系列	A	B	e	E	L	M	P	S1
HCP	1S	18	20	M14x1.0	8.6	25.5	3.5	12.0	-
HCP	2S	20	20	M16x1.0	12.5	29.0	3.5	16.5	14.5
HCP	4S	27	34	M25x1.0	15.5	41.0	4.5	20.0	23.5

P3 面板开口尺寸见第 152 页

注: 4S 系列出厂时配有圆锥螺母。



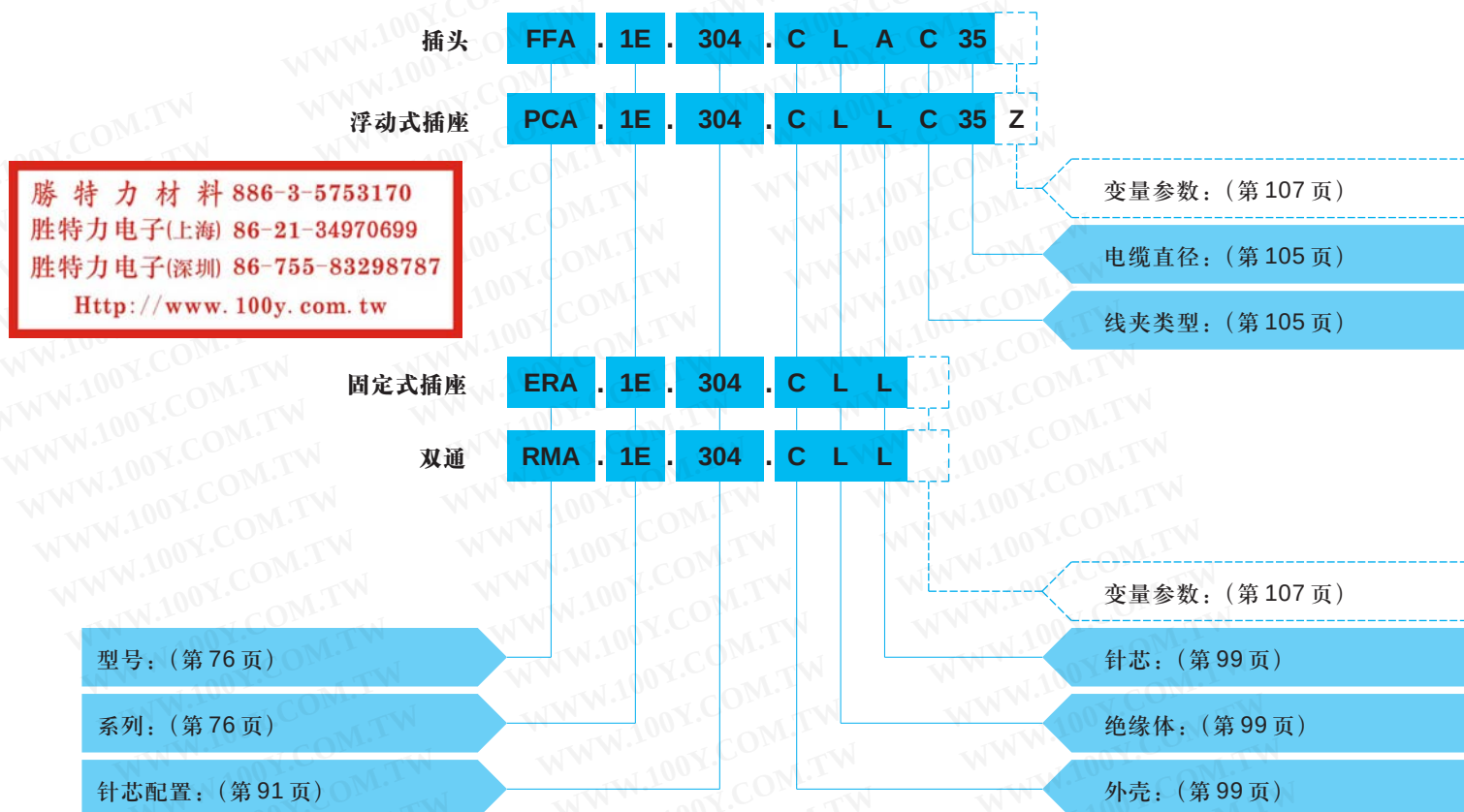
SWH 固定式双通，螺母固定，水密或真空密封

编号		尺寸 (mm)								
型号	系列	A	B	e	E	L	M	S1	S3	
SWH	0S	14	13.8	M10x0.75	17	34	2.0	9.0	12	
SWH	1S	17	15.8	M12x1.00	28	39	2.5	10.5	14	
SWH	2S	20	21.5	M16x1.00	25	44	4.0	15.0	19	
SWH	3S	25	27.0	M20x1.00	30	53	4.0	18.5	24	
SWH	4S	34	34.0	M25x1.00	50	65	4.0	23.5	30	
SWH	5S	45	40.0	M35x1.00	58	80	5.0	33.5	-	
SWH	6S	58	54.0	M48x1.50	55	81	6.0	45.5	-	

P4 面板开口尺寸见第 152 页

注: 为保证针芯的正确定位, 见第 101 页选择相应的插头和针芯配置。
5S 和 6S 系列出厂时配有圆螺母。

产品编号规则



产品编号举例

带线夹的直式插头：

FFA.1E.304.CLAC35 = 直式插头，带线夹，1E 系列，多芯类型，4 芯，黄铜镀铬外壳，PEEK 绝缘体，2 个公针和 2 个母针，焊接型针芯，适用于外径 3.5mm 电缆的 C 型线夹

浮动式插座：

PCA.1E.304.CLLC35Z = 浮动式插座，带线夹，1E 系列，多芯类型，4 芯，黄铜镀铬外壳，PEEK 绝缘体，2 个母针和 2 个公针，焊接型针芯，适用于外径 3.5mm 电缆的 C 型线夹和带护套型的尾盖

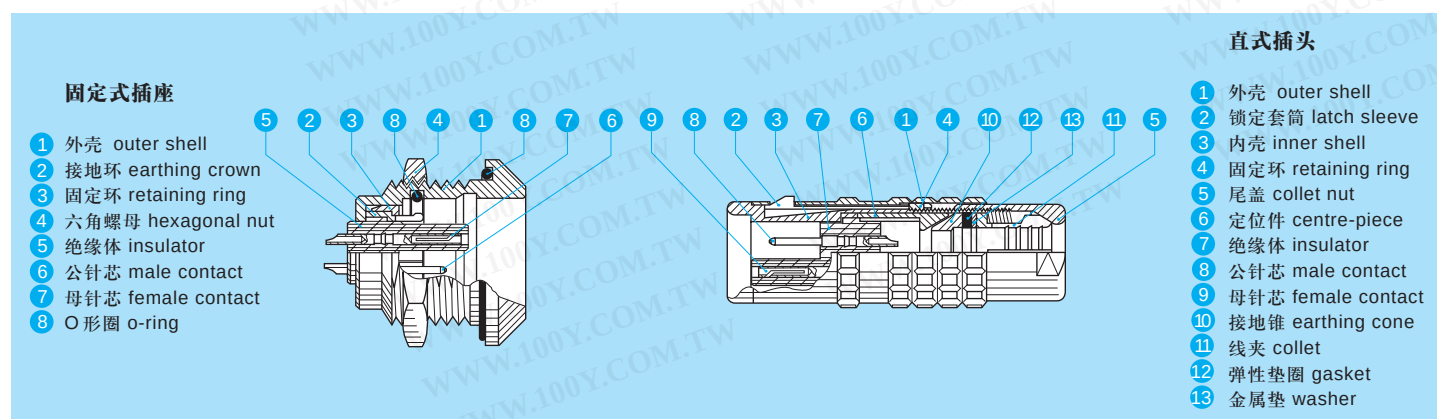
固定式插座：

ERA.1E.304.CLL = 固定式插座，螺母固定，1E 系列，多芯类型，4 芯，黄铜镀铬外壳，PEEK 绝缘体，2 个母针和 2 个公针，焊接型针芯

浮动式双通：

RMA.1E.304.CLL = 直式的固定式双通，螺母固定，1E 系列，多芯类型，4 芯，黄铜镀铬外壳，PEEK 绝缘体，每端有 2 个母针和 2 个公针

产品剖面图



金属外壳型号

技术特性

机械性能和环境因素

特性	参数	标准
插拔次数	> 5000 次	IEC60512-5 试验 9a
湿度	在 60°C 时最高达 95%	
温度范围 ¹⁾	-55°C, +200°C	
抗振动性能	10-2000Hz, 15g	IEC60512-4 试验 6d
抗冲击性能	100g, 6ms	IEC60512-4 试验 6c
盐雾腐蚀试验	> 144 h	IEC60512-6 试验 11f
防护等级 (插合时) ²⁾	IP 68 / IP 66	IEC60529
环境实验	50/175/21	IEC60068-1

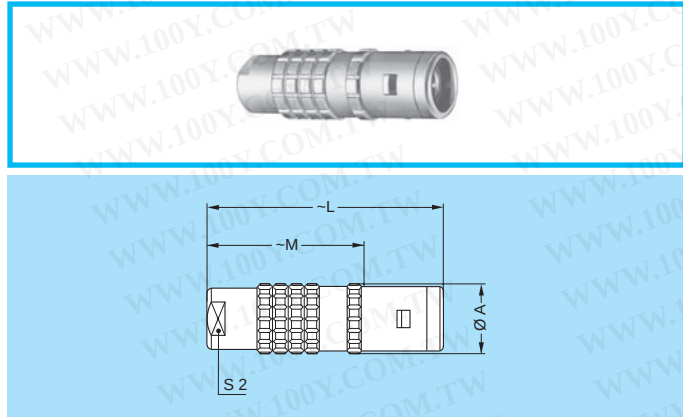
电气性能

特性	参数	标准
屏蔽效果	在 10MHz 下	> 95 dB
	在 1GHz 下	> 80 dB
		IEC60169-1-3

注：以上数据是对外壳采用黄铜镀铬、绝缘体采用 PEEK 材料、带硅胶 O 形圈的 FFA 插头和 ERA 插座进行各项试验得出。
 详细的电气性能、材料和表面处理方法在第 171 页的《技术特性》章节中进行了介绍。

¹⁾ 对配有 FPM (Viton®) O 形圈的插座，其最低工作温度为 -20°C。

²⁾ 若电缆外形足够圆，并且组装过程保证密封良好，那么可以达到 IP 68 防护等级。



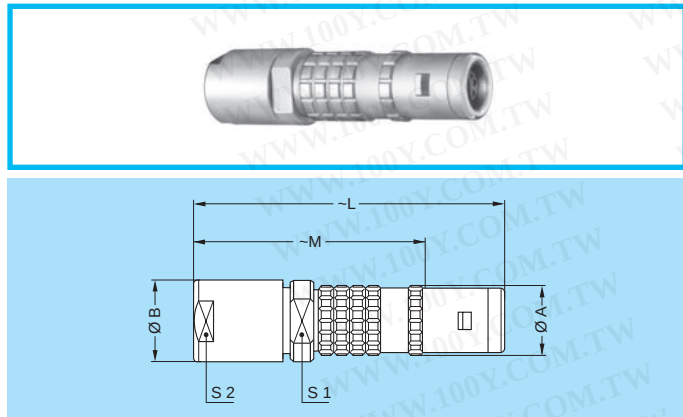
FFA 直式插头，电缆线夹

编号		尺寸 (mm)			
型号	系列	A	L	M	S2
FFA	0E	11	34	23.0	8
FFA	1E	13	42	28.0	9
FFA	2E	16	52	36.0	12
FFA	3E	19	61	41.0	15
FFA	4E	25	71	50.5	19
FFA	5E	38	92	67.0	32
FGG ¹⁾	6E	47	118	89.0	38

M1

电缆组装
 见第 167 和 168 页

注：¹⁾ 带定位销 (G)

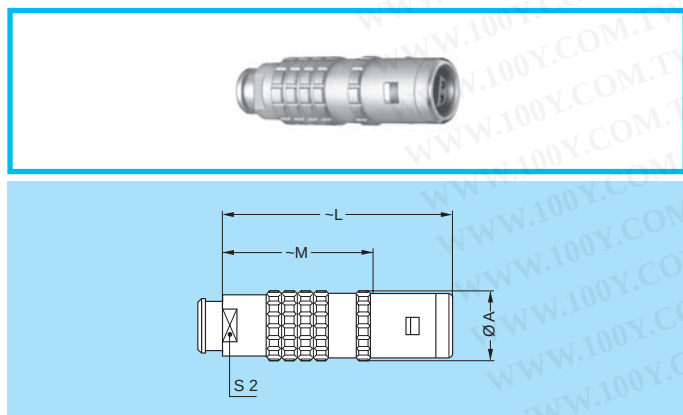


FFA 直式插头，加大尺寸电缆线夹¹⁾

编号		尺寸 (mm)					
型号	系列	A	B	L	M	S1	S2
FFA	1E	13	14.5	55	41	12	12
FFA	2E	16	17.0	65	49	15	15
FFA	3E	19	22.0	80	60	19	19
FFA	4E	25	36.0	118	84	30	32

M2 电缆组装见第 167 到 169 页

注：¹⁾ 对应 K 型线夹，在该型号上用加大尺寸线夹使其能使用大一号外壳适用的电缆。(见第 105 页)



FFA 直式插头，电缆线夹和带护套型的尾盖¹⁾

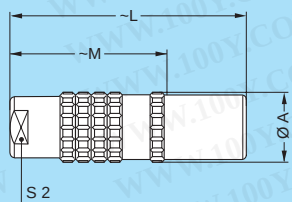
编号		尺寸 (mm)			
型号	系列	A	L	M	S2
FFA	0E	11	34	23.0	7
FFA	1E	13	42	28.0	9
FFA	2E	16	52	36.0	12
FFA	3E	19	60	40.0	15
FFA	4E	25	71	50.5	19

M1

电缆组装
 见第 167 和 168 页

注：¹⁾ 订购时，在编号最后加一字母“Z”。
 护套需另外订购 (见第 141 页)。

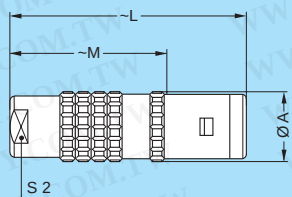
FFF 直式插头，电缆线夹，不带锁定装置



编号		尺寸 (mm)			
型号	系列	A	L	M	S2
FFF	0E	11	34	23	8
FFF	1E	13	42	28	9

M1 电缆组装见第 167 页

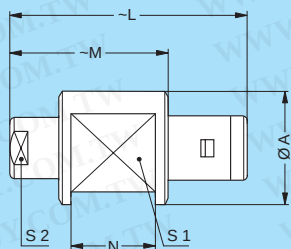
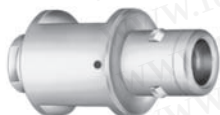
FFP 直式插头，电缆线夹和内部防转动构件



编号		尺寸 (mm)			
型号	系列	A	L	M	S2
FFP	3E	19	61	41.0	15
FFP	4E	25	71	50.5	19

M1 电缆组装见第 167 和 168 页

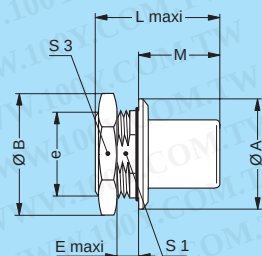
FZP 适用于遥控操作的直式插头，电缆线夹和内部防转动构件



编号		尺寸 (mm)					
型号	系列	A	L	M	N	S1	S2
FZP	1E	20	42	28.0	15	15	9
FZP	2E	22	52	36.0	16	16	12
FZP	3E	23	61	41.0	20	19	15
FZP	4E	32	71	50.5	29	25	19
FZP	5E	44	92	67.0	40	36	32

M1 电缆组装见第 167 和 168 页

FAA 固定式插头，螺母固定，不带锁定装置



编号		尺寸 (mm)								
型号	系列	A	B	e	E	L	L ¹⁾	M	S1	S3
FAA	0E	18	19.2	M14x1.0	3.5	19.5	19.5	13.0	12.5	17
FAA	1E	20	21.5	M16x1.0	3.5	23.0	23.0	16.0	14.5	19
FAA	2E	25	27.0	M20x1.0	4.0	27.0	27.0	18.0	18.5	24
FAA	3E	31	34.0	M24x1.0	4.5	32.5	32.5	22.5	22.5	30

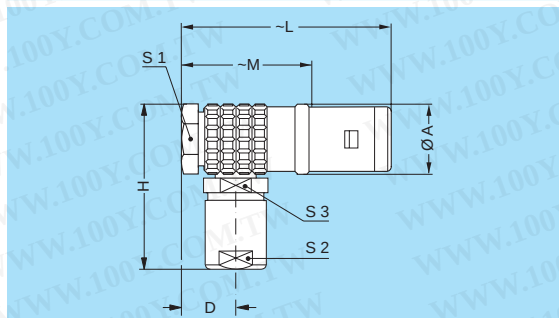
P1 面板开口尺寸见第 153 页

注：¹⁾ 单芯型号



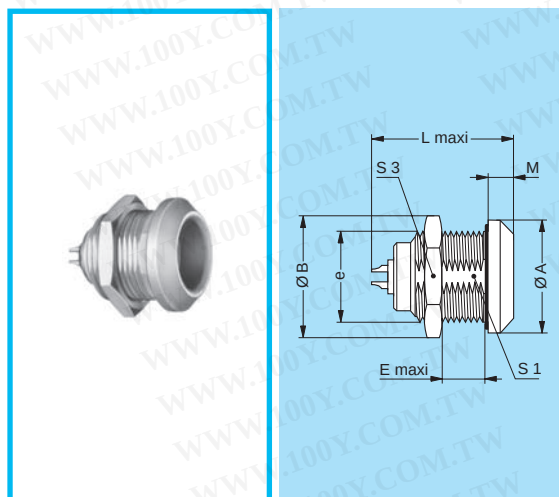
FLA 90°弯角式插头，电缆线夹

勝特力材料 886-3-5753170
勝特力电子(上海) 86-21-34970699
勝特力电子(深圳) 86-755-83298787
[Http://www.100y.com.tw](http://www.100y.com.tw)



编号		尺寸 (mm)							
型号	系列	A	D	H	L	M	S1	S2	S3
FLA	0E	11.5	7.6	27	36	25.0	10	8	8
FLA	1E	14.0	8.8	33	43	29.0	12	9	10
FLA	2E	17.5	10.5	40	51	35.0	15	12	13
FLA	3E	21.0	11.5	47	60	40.0	18	15	15
FLA	4E	27.5	15.5	57	72	51.5	24	19	20

M3 电缆组装见第 167 和 168 页



ERA 固定式插座，螺母固定

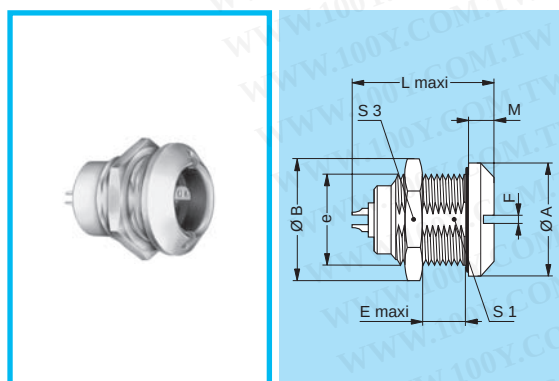
编号		尺寸 (mm)								
型号	系列	A	B	e	E	L	L ¹⁾	M	S1	S3
ERA	0E	18	19.2	M14x1.0	7.0	19.5	20.5	4.0	12.5	17
ERA	1E	20	21.5	M16x1.0	9.0	24.0	25.3	4.5	14.5	19
ERA	2E	25	27.0	M20x1.0	9.0	28.5	30.0	5.0	18.5	24
ERA	3E	31	34.0	M24x1.0	11.0	34.0	35.0	6.0	22.5	30
ERA	4E	37	40.5	M30x1.0	9.0	36.0	38.0	6.5	28.5	36
ERA	5E	55	54.0	M45x1.5	10.0	44.5	78.0	9.0	42.5	-
EGG ²⁾	6E	65	65.0	M55x2.0	10.5	48.5	-	10.0	52.0	-

P1 面板开口尺寸见第 153 页

注：5E 和 6E 系列出厂时配有圆螺母。

¹⁾ 单芯型号

²⁾ 带定位销 (G)

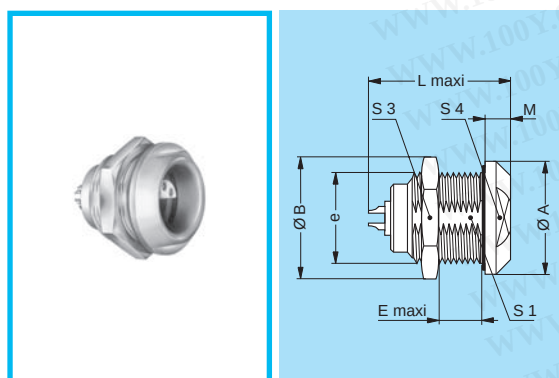


ERC 固定式插座，螺母固定，法兰开槽

编号		尺寸 (mm)									
型号	系列	A	B	e	E	F	L	L ¹⁾	M	S1	S3
ERC	0E	18	19.2	M14x1.0	7	1.5	19.5	20.5	4.0	12.5	17
ERC	3E	31	34.0	M24x1.0	11	3.0	34.0	35.0	6.0	22.5	30
ERC	4E	37	40.5	M30x1.0	9	3.0	36.0	38.0	6.5	28.5	36

P1 面板开口尺寸见第 153 页

注：¹⁾ 单芯型号



ERB 固定式插座，螺母固定，法兰端带两个平面

编号		尺寸 (mm)									
型号	系列	A	B	e	E	L	L ¹⁾	M	S1	S3	S4
ERB	0E	18	19.2	M14x1.0	7	19.5	20.5	4.0	12.5	17	14
ERB	1E	20	21.5	M16x1.0	9	24.0	25.3	4.5	14.5	19	17
ERB	2E	25	27.0	M20x1.0	9	28.5	30.0	5.0	18.5	24	20
ERB	3E	31	34.0	M24x1.0	11	34.0	35.0	6.0	22.5	30	24

P1 面板开口尺寸见第 153 页

注：¹⁾ 单芯型号

EEP 固定式插座，螺母固定（后面板安装）

编号		尺寸 (mm)								
型号	系列	A	B	e	E	L	L ¹⁾	M	P	S1
EEP	0E	18	18	M14x1.0	3.5	19.5	20.5	3.5	7	12.5
EEP	1E	20	20	M16x1.0	6.5	24.0	25.3	3.5	10	14.5
EEP	2E	25	25	M20x1.0	6.5	28.5	30.0	3.5	10	18.5
EEP	3E	30	31	M24x1.0	7.5	34.0	35.0	4.5	12	22.5

P1 面板开口尺寸见第 153 页

注：¹⁾ 单芯型号

注：3E 系列出厂时配有圆锥螺母。

EEP 固定式插座，螺母固定，适用于印制线路板的直针芯（后面板安装）

编号		尺寸 (mm)							
型号	系列	A	B	e	E	M	N	P	S1
EEP	0E	18	18	M14x1.0	3.5	3.5	16.0	7	12.5
EEP	1E	20	20	M16x1.0	6.5	3.5	21.5	10	14.5
EEP	2E	25	25	M20x1.0	6.5	3.5	24.0	10	18.5
EEP	3E	30	31	M24x1.0	7.5	4.5	29.5	12	22.5

P1 面板开口尺寸见第 153 页

P21 PCB 板钻孔参数见第 159 页

注：此针芯类型适用于所有的 E●● 插座型号。见第 159 页类型表。
 长度“L”取决于针芯的数量，见第 159 页的 PCB 板钻孔参数。
 3E 系列出厂时配有圆锥螺母。

EEP 固定式插座，螺母固定，适用于印制线路板的 90° 弯角针芯（后面板安装）

编号		尺寸 (mm)							
型号	系列	A	B	e	E	M	N	P	S1
EEP	1E	20	20	M16x1.0	6.5	3.5	16.0	10	14.5
EEP	2E	25	25	M20x1.0	6.5	3.5	24.0	10	18.5

P1 面板开口尺寸见第 153 页

P24 PCB 板钻孔参数见第 160 页

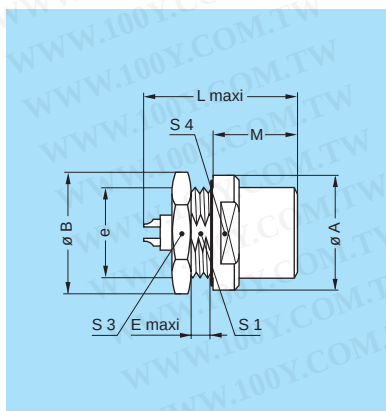
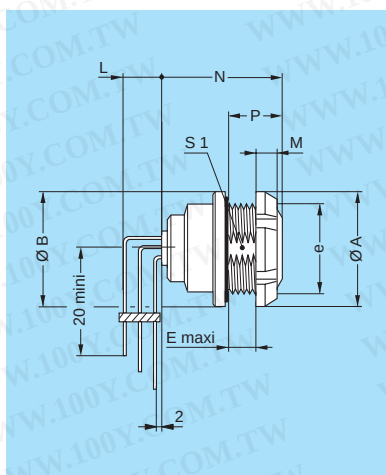
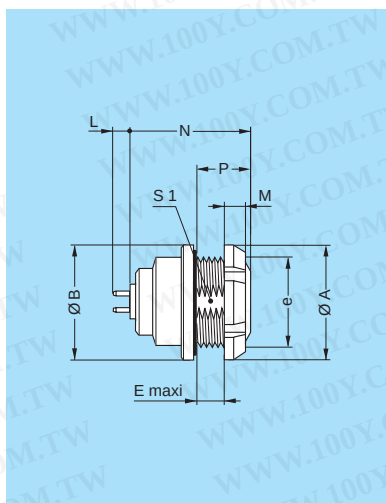
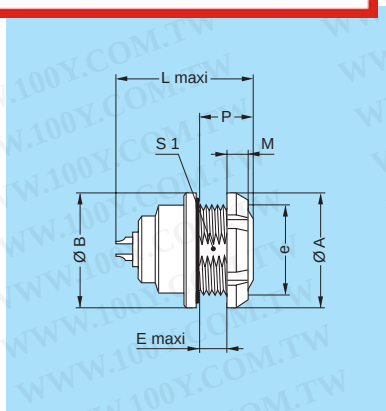
注：此针芯类型适用于所有的后面板安装的插座。见第 160 页类型表。
 长度“L”取决于针芯的数量，见第 160 页的 PCB 板钻孔参数。

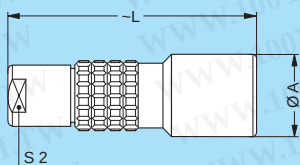
EHP 固定式插座，螺母固定，凸出式外壳，

编号		尺寸 (mm)								
型号	系列	A	B	e	E	L	L ¹⁾	M	S3	S4
EHP	0E	18	19.2	M14x1.0	1.5	19.5	20.5	10.5	17	15
EHP	1E	20	21.5	M16x1.0	1.5	24.0	25.3	15.5	19	17
EHP	2E	25	27.0	M20x1.0	2.0	28.5	30.0	17.0	24	20

P1 面板开口尺寸见第 153 页

注：¹⁾ 单芯型号





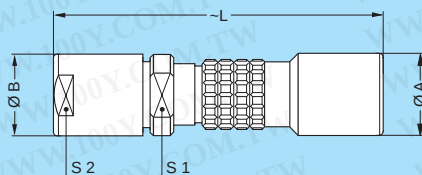
PCA 浮动式插座，电缆线夹

编号		尺寸 (mm)		
型号	系列	A	L	S2
PCA	0E	13	34.0	8
PCA	1E	15	45.0	9
PCA	2E	19	54.0	12
PCA	3E	23	65.0	15
PCA	4E	29	75.5	19
PCA	5E	42	95.0	32
PHG ¹⁾	6E	52	125.0	38

M1

电缆组装
见第 167 和 168 页

注: ¹⁾ 带定位销 (G)

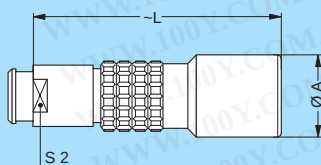


PCA 浮动式插座，加大尺寸电缆线夹¹⁾

编号		尺寸 (mm)				
型号	系列	A	B	L	S1	S2
PCA	1E	15	14.5	58.0	12	12
PCA	2E	19	17.0	67.0	15	15
PCA	3E	23	22.0	84.0	19	19
PCA	4E	29	36.0	109.0	30	32

M2 电缆组装见第 167 和 169 页

注: ¹⁾ 对应 K 型线夹，在该型号上用加大尺寸线夹使其能使用大一号外壳适用的电缆。(见第 105 页)



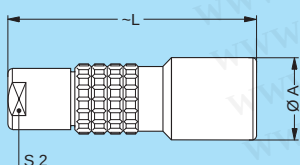
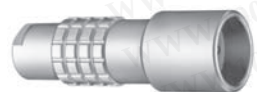
PCA 浮动式插座，电缆线夹和带护套型的尾盖¹⁾

编号		尺寸 (mm)		
型号	系列	A	L	S2
PCA	0E	13	34.0	7
PCA	1E	15	45.0	9
PCA	2E	19	54.0	12
PCA	3E	23	64.0	15
PCA	4E	29	75.5	19

M1

电缆组装
见第 167 和 168 页

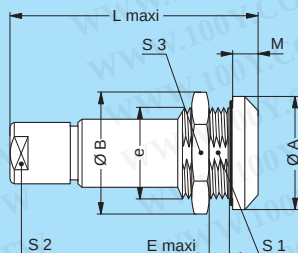
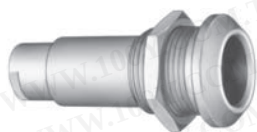
注: ¹⁾ 订购时，在编号最后加一字母“Z”。
护套需另外订购 (见第 141 页)。



PCP 浮动式插座，电缆线夹和内部防转动构件

编号		尺寸 (mm)		
型号	系列	A	L	S2
PCP	3E	23	65.0	15
PCP	4E	29	75.5	19

M1 电缆组装见第 167 和 168 页



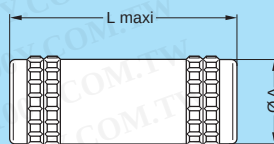
PSA 固定式插座，螺母固定，电缆线夹

编号		尺寸 (mm)								
型号	系列	A	B	e	E	L	M	S1	S2	S3
PSA	0E	18	19.2	M14x1.0	7.0	34.0	4.0	12.5	8	17
PSA	1E	20	21.5	M16x1.0	9.0	45.0	4.5	14.5	9	19
PSA	2E	25	27.0	M20x1.0	9.0	54.0	5.0	18.5	12	24
PSA	3E	31	34.0	M24x1.0	11.0	65.0	6.0	22.5	15	30
PSA	4E	37	40.5	M30x1.0	9.0	75.5	6.5	28.5	19	36
PSA	5E	51	54.0	M45x1.5	10.0	95.0	9.0	-	32	54
PKG ¹⁾	6E	65	65.0	M55x2.0	10.5	125.0	10.0	-	38	-

P1 面板开口尺寸见第 153 页

M1 电缆组装见第 167 和 168 页

注：¹⁾ 带定位销 (G)
5E 和 6E 系列出厂时配有圆螺母。



RMA 浮动式双通

编号		尺寸 (mm)	
型号	系列	A	L
RMA	0E	14	30
RMA	1E	16	40
RMA	2E	20	44
RMA	3E	25	54
RMA	4E	30	57
RMA	5E	44	67

注：为保证针芯的正确定位，见第 101 页选择相应的插头和针芯配置。

水密或真空密封型号

此类插座和双通型号可使设备达到 IP68 保护等级 (按 IEC60529 标准)。他们与同系列的插头完全兼容, 因而被广泛应用于手提无线设备、军工、实验设备和航空领域等。

此类型号是在产品编号最后加一个字母“P”以示区别。
此类型号大多数都有真空密封型。若是真空密封型号, 需在字母“P”后再多加一个字母“V”。(需要的话, 可提供检验报告)

此类型号的密封材料为环氧树脂。

技术特性

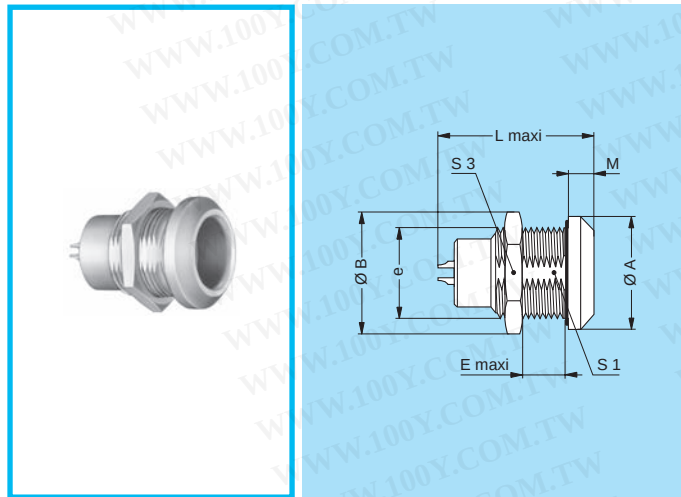
机械性能和环境因素

特性	参数	标准
插拔次数	> 5000 次	IEC60512-5 试验 9a
湿度	在 60°C 时最高达 95%	
温度范围 (0E 到 1E)	-20°C, +100°C	
温度范围 (2E 到 6E)	-20°C, +80°C	
盐雾腐蚀试验	> 144h	IEC60512-6 试验 11f
环境实验	20/80/21	IEC60068-1
泄漏率 (He) ¹⁾	< 10 ⁻⁷ mbar.l.s ⁻¹	IEC60512-7 试验 14b

注: ¹⁾ 仅适用于真空密封型

特性	参数	标准
最大工作压强 ²⁾	0E	60 bars
	1E	60 bars
	2E	40 bars
	3E	30 bars
	4E	15 bars
	5E	5 bars
	6E	5 bars

注: ²⁾ 此参数对应的是组装后的插座能承受的最大压差



HGP 固定式插座, 螺母固定, 水密或真空密封

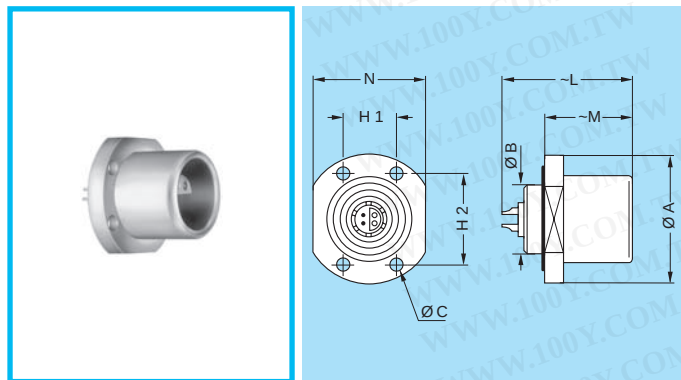
编号		尺寸 (mm)								
型号	系列	A	B	e	E	L	L ¹⁾	M	S1	S3
HGP	0E	18	19.2	M14x1.0	7.0	23.5	22.0	4.0	12.5	17
HGP	1E	20	21.5	M16x1.0	9.0	28.0	28.0	4.5	14.5	19
HGP	2E	25	27.0	M20x1.0	10.5	32.5	28.0	5.0	18.5	24
HGP	3E	31	34.0	M24x1.0	15.5	39.5	38.5	6.0	22.5	30
HGP	4E	37	40.5	M30x1.0	17.5	43.0	44.0	6.5	28.5	36
HGP	5E	55	54.0	M45x1.5	20.0	52.0	76.0	9.0	42.5	-
HGP ²⁾	6E	65	65.0	M55x2.0	20.5	52.0	-	10.0	52.0	-

P1 面板开口尺寸见第 153 页

注: 5E 和 6E 系列出厂时配有圆螺母。

¹⁾ 单芯型号

²⁾ 带定位销 (G)



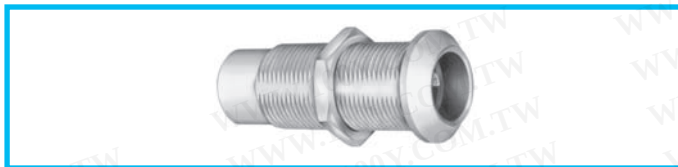
EBR 带圆形法兰的固定式插座, 水密, 凸出式外壳, 螺丝固定

编号		尺寸 (mm)								
型号	系列	A	B	C	H1	H2	L	L ¹⁾	M	N
EBR	2E	28	15	2.8	11.8	20.4	32.5	28.0	19	25

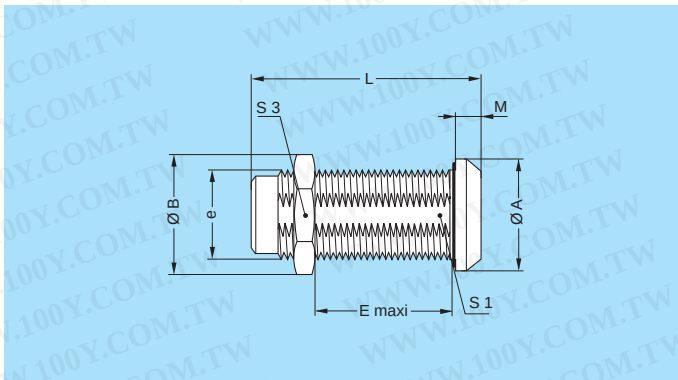
P6 面板开口尺寸见第 153 页

注: ¹⁾ 单芯型号

此型号只有水密型。



SWH 固定式双通，螺母固定，水密或真空密封



编号		尺寸 (mm)							
型号	系列	A	B	e	E	L	M	S1	S3
SWH	0E	18	19.2	M14x1.0	22.5	36.0	4.0	12.5	17
SWH	1E	20	21.5	M16x1.0	30.5	47.0	4.5	14.5	19
SWH	2E	25	27.0	M20x1.0	28.0	52.4	5.0	18.5	24
SWH	3E	31	34.0	M24x1.0	33.0	64.2	6.0	22.5	30
SWH	4E	37	40.5	M30x1.0	44.5	70.0	6.5	28.5	36
SWH	5E	55	54.0	M45x1.5	47.0	81.0	9.0	42.5	-
SWH ¹⁾	6E	65	65.0	M55x2.0	12.0	76.0	10.0	-	-

P1 面板开口尺寸见第153页

注：¹⁾ 带定位销 (G)

5E和6E系列出厂时配有圆螺母。

为保证针芯的正确定位，见第101页选择相应的插头和针芯配置。

勝特力材料 886-3-5753170
勝特力电子(上海) 86-21-34970699
勝特力电子(深圳) 86-755-83298787
[Http://www.100y.com.tw](http://www.100y.com.tw)

L 系列

勝特力材料 886-3-5753170
 勝特力电子(上海) 86-21-34970699
 勝特力电子(深圳) 86-755-83298787
[Http://www.100y.com.tw](http://www.100y.com.tw)

L系列连接器专为室外应用而设计，其将S/E系列的阶梯状（半月）插芯和K系列的定位销系统有机地结合，达到很高的定位极性。它们包括一个内套筒和两个密封圈以防止固体或液体渗透进插头、浮动插座、固定插座或双通的外壳。该系列的所有型号插合时都防水，并且当与相应的电缆正确组装后能达到IP68（至少为IP66）的保护等级（按IEC60529标准）。

L系列与S系列连接器有着同样的绝缘体，其主要特征为：

- 安全的插拔自锁系统
- 多芯类型 2 - 10 芯
- 阶梯状（半月）插芯同时配有公针芯和母针芯
- 高密度安装，节约空间
- 定位销系统（<G> 为标准定位销）用于连接器对位
- 防水连接（IP68/IP66）
- 焊接、压接和印制板接（直式）针芯
- 多种定位销选择可避免相似连接器之间的混插
- 360° 屏蔽提供全方位 EMC 防护（抗电磁干扰）
- 坚固外壳设计适用于极度恶劣的工作环境

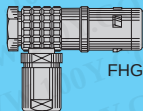
金属外壳型号 (第 86 页)

固定式插头



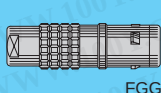
FAG

弯角式插头



FHG

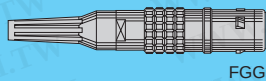
直式插头



FGG

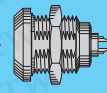


FGG

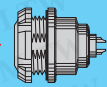


FGG

固定式插座

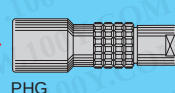


EGG

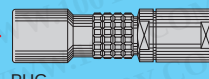


EEG

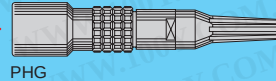
浮动式插座



PHG



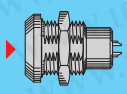
PHG



PHG

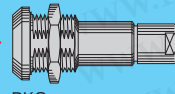
真空密封型号 (第 89 页)

固定式插座



HGG

固定式插座



PKG

产品编号规则

插头

FG G . 2L . 306 . C L A C 65

勝特力材料 886-3-5753170
 勝特力电子(上海) 86-21-34970699
 勝特力电子(深圳) 86-755-83298787
[Http://www.100y.com.tw](http://www.100y.com.tw)

变量参数: (第 107 页)

电缆直径: (第 106 页)

线夹类型: (第 106 页)

固定式插座

EG G . 2L . 306 . C Y M

型号: (第 86 页)

定位销: (第 90 页)

系列: (第 86 页)

针芯配置: (第 92 页)

变量参数: (第 107 页)

针芯: (第 99 页)

绝缘体: (第 99 页)

外壳: (第 99 页)

产品编号举例

带线夹的直式插头

FGG.2L.306.CLAC65 = 直式插头, 定位销(G), 带线夹, 2L 系列, 多芯类型, 6芯, 黄铜镀铬外壳, PEEK 绝缘体, 3个公针和3个母针, 焊接型针芯, 适用于外径 6.5mm 电缆的 C 型线夹

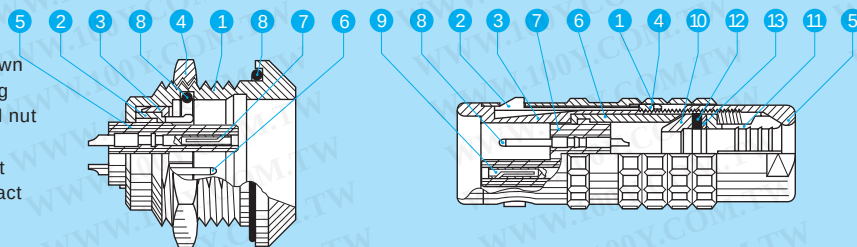
固定式插座:

EGG.2L.306.CYM = 固定式插座, 螺母固定, 定位销(G), 2L 系列, 多芯类型, 6芯, 黄铜镀铬外壳, PEEK 加长绝缘体, 3个公针和3个母针, 压接型针芯

产品剖面图

固定式插座

- ① 外壳 outer shell
- ② 接地环 earthing crown
- ③ 固定环 retaining ring
- ④ 六角螺母 hexagonal nut
- ⑤ 绝缘体 insulator
- ⑥ 公针芯 male contact
- ⑦ 母针芯 female contact
- ⑧ O 形圈 o-ring



直式插头

- ① 外壳 outer shell
- ② 锁定套筒 latch sleeve
- ③ 内壳 inner shell
- ④ 固定环 retaining ring
- ⑤ 尾盖 collet nut
- ⑥ 绝缘体固定片 split insert carrier
- ⑦ 绝缘体 insulator
- ⑧ 公针芯 male contact
- ⑨ 母针芯 female contact
- ⑩ 接地锥 earthing cone
- ⑪ 线夹 collet
- ⑫ 弹性垫圈 gasket
- ⑬ 金属垫 washer

技术特性

机械性能和环境因素

特性	参数	标准
插拔次数	> 5000 次	IEC60512-5 试验 9a
湿度	在 60°C 时最高达 95%	
温度范围 ¹⁾	-55°C, +200°C	
抗振动性能	10-2000Hz, 15g	IEC60512-4 试验 6d
抗冲击性能	100g, 6ms	IEC60512-4 试验 6c
盐雾腐蚀试验	> 144 h	IEC60512-6 试验 11f
防护等级 (插合时) ²⁾	IP 68 / IP 66	IEC60529
环境实验	50/175/21	IEC60068-1

电气性能

特性	参数	标准
屏蔽效果	在 10MHz 下	> 95 dB
	在 1GHz 下	> 80 dB
		IEC60169-1-3

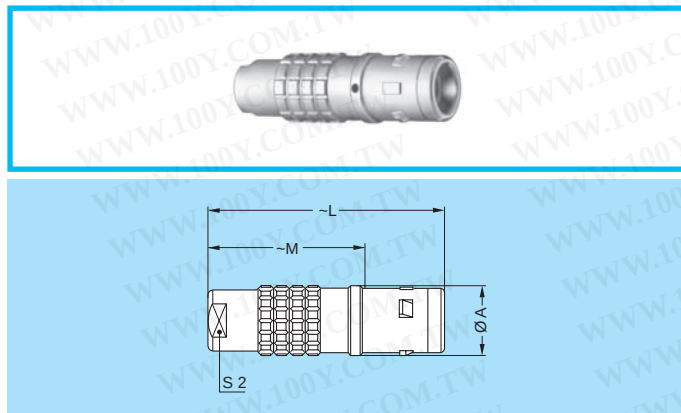
注:

以上数据是对外壳采用黄铜镀铬、绝缘体采用 PEEK 材料、带硅胶 O 形圈的 FGG 插头和 EGG 插座进行的各项试验得出。

详细的电气性能、材料和表面处理方法在第 171 页的《技术特性》章节中进行了介绍

¹⁾ 对配有 FPM (氟橡胶) O 形圈的插座, 其最低工作温度为 -20°C。

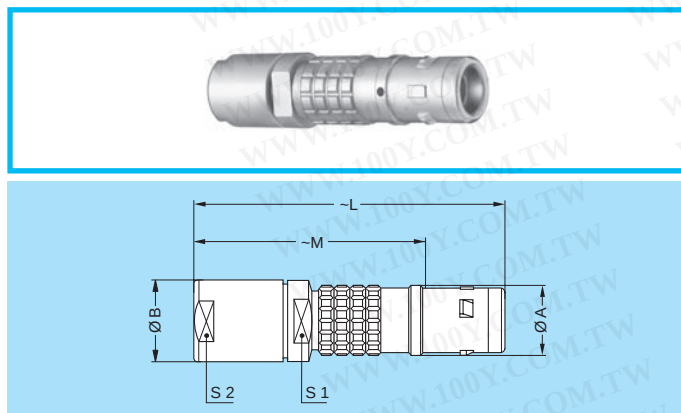
²⁾ 若电缆外形足够圆, 并且组装过程保证密封良好, 那么可以达到 IP68 防护等级。



FGG 直式插头, 定位销 (G) 或定位销 (A...C 和 L), 电缆线夹

编号		尺寸 (mm)			
型号	系列	A	L	M	S2
FGG	0L	11	34	23.0	8
FGG	1L	13	42	28.0	9
FGG	2L	16	52	36.0	12

M1 电缆组装见第 170 页

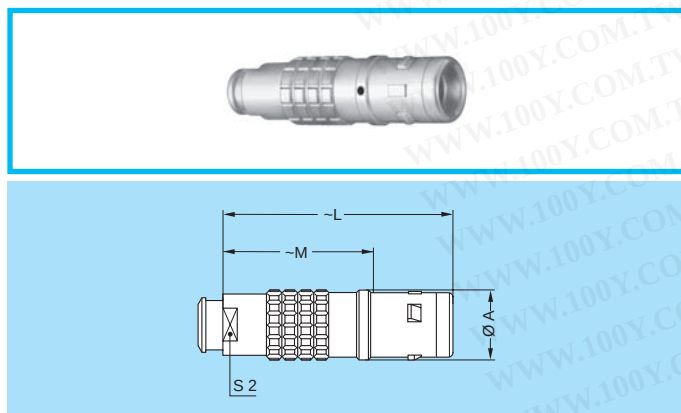


FGG 直式插头, 定位销 (G) 或定位销 (A...C 和 L), 电缆线夹和加大尺寸电缆线夹¹⁾

编号		尺寸 (mm)					
型号	系列	A	B	L	M	S1	S2
FGG	1L	13	14.5	60	46	12	12
FGG	2L	16	17.0	68	52	15	15

M2 电缆组装见第 170 页

注: ¹⁾ 对应 K 型线夹, 在该型号上用加大尺寸线夹使其能使用大一号外壳适用的电缆。(见第 106 页)



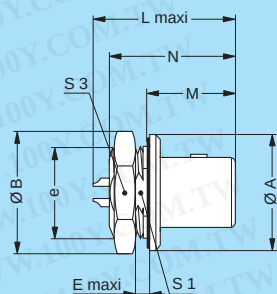
FGG 直式插头, 定位销 (G) 或定位销 (A...C 和 L), 电缆线夹和带护套型的尾盖¹⁾

编号		尺寸 (mm)			
型号	系列	A	L	M	S2
FGG	0L	11	34	23	7
FGG	1L	13	42	28	9
FGG	2L	16	52	36	12

M1 电缆组装见第 170 页

注: ¹⁾ 订购时, 在编号最后加一字母“Z”。
 护套需另外订购 (见第 141 页)。

FAG 固定式插头，螺母固定，不带锁定装置，定位销 (G) 或定位销 (A ... C 和 L)

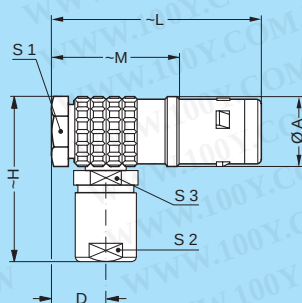
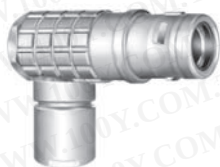


编号		尺寸 (mm)							
型号	系列	A	B	e	E	L	M	N ¹⁾	S1 S3
FAG	2L	25	27.0	M20x1.0	4.5	28.2	18.0	28.3	18.5 24

P1 面板开口尺寸见第 153 页

注: ¹⁾ 压接针芯时的最大长度。

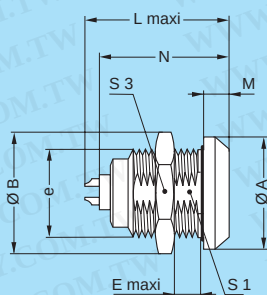
FHG 90° 弯角式插头，定位销 (G) 或定位销 (A ... C 和 L)，电缆线夹



编号		尺寸 (mm)							
型号	系列	A	D	H	L	M	S1	S2	S3
FHG	0L	11.5	7.6	27	36	25.0	10	8	8
FHG	1L	14.0	8.8	33	43	29.0	12	9	10
FHG	2L	17.5	10.5	40	51	35.0	15	12	13

M3 电缆组装见第 170 页

EGG 固定式插座，螺母固定，定位销 (G) 或定位销 (A ... C 和 L)

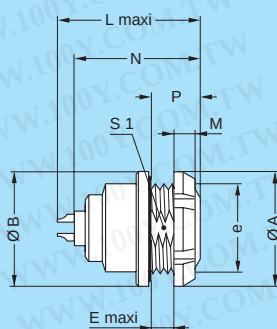


编号		尺寸 (mm)							
型号	系列	A	B	e	E	L	M	N ¹⁾	S1 S3
EGG	0L	18	19.2	M14x1.0	6	21.7	4.0	20.1	12.5 17
EGG	1L	20	21.5	M16x1.0	9	27.0	4.5	25.1	14.5 19
EGG	2L	25	27.0	M20x1.0	9	30.7	5.0	28.6	18.5 24

P1 面板开口尺寸见第 153 页

注: ¹⁾ 压接针芯时的最大长度。

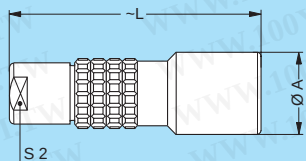
EEG 固定式插座，螺母固定，定位销 (G) 或定位销 (A ... C 和 L) (后面板安装)



编号		尺寸 (mm)							
型号	系列	A	B	e	E	L	M	N ¹⁾	P S1
EEG	0L	18.0	18	M14x1.0	3.4	21.7	3.5	20.1	7.0 12.5
EEG	1L	20.0	20	M16x1.0	6.2	27.0	3.5	25.1	10.0 14.5
EEG	2L	25.0	25	M20x1.0	5.0	30.7	3.5	28.6	10.0 18.5

P1 面板开口尺寸见第 153 页

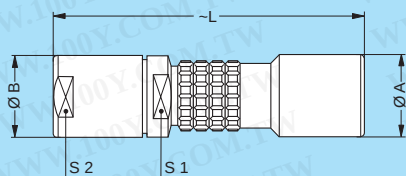
注: ¹⁾ 压接针芯时的最大长度。



PHG 浮动式插座, 定位销 (G) 或定位销 (A...C 和 L), 电缆线夹

编号		尺寸 (mm)		
型号	系列	A	L	S2
PHG	0L	13	34.0	8
PHG	1L	15	45.0	9
PHG	2L	19	54.0	12

M1 电缆组装见第 170 页

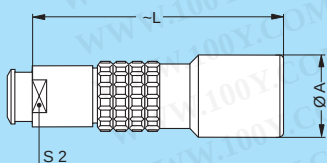
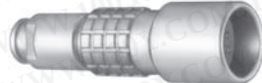


PHG 浮动式插座, 定位销 (G) 或定位销 (A...C 和 L), 电缆线夹和加大尺寸电缆线夹¹⁾

编号		尺寸 (mm)				
型号	系列	A	B	L	S1	S2
PHG	1L	15	14.5	63	12	12
PHG	2L	19	17.0	70	15	15

M2 电缆组装见第 170 页

注: ¹⁾ 对应K型线夹, 在该型号上用加大尺寸线夹使其能使用大一号外壳适用的电缆。(见第 106 页)

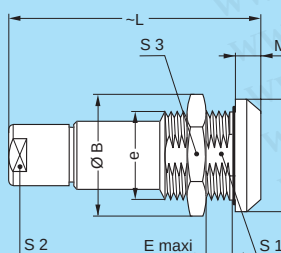


PHG 浮动式插座, 定位销 (G) 或定位销 (A...C 和 L), 电缆线夹和带护套型的尾盖¹⁾

编号		尺寸 (mm)		
型号	系列	A	L	S2
PHG	0L	13	34.0	7
PHG	1L	15	45.0	9
PHG	2L	19	54.0	12

M1 电缆组装见第 170 页

注: ¹⁾ 订购时, 在编号最后加一字母“Z”。护套需另外订购 (见第 141 页)。



PKG 固定式插座, 螺母固定, 定位销 (G) 或定位销 (A...C 和 L), 电缆线夹

编号		尺寸 (mm)								
型号	系列	A	B	e	E	L	M	S1	S2	S3
PKG	0L	18	19.2	M14x1.0	6	34.0	4.0	12.5	8	17
PKG	1L	20	21.5	M16x1.0	9	45.0	4.5	14.5	9	19
PKG	2L	25	27.0	M20x1.0	9	54.0	5.0	18.5	12	24

M1 电缆组装见第 170 页

P1 面板开口尺寸见第 153 页

水密或真空密封型号

此类插座和双通型号可使设备达到 IP68 保护等级 (按 IEC60529 标准)。
此类型号也有真空密封型。若是真空密封型号, 需在编号最后加字母“PV”。(需要的话, 可提供检验报告)

此类型号的密封材料为环氧树脂。

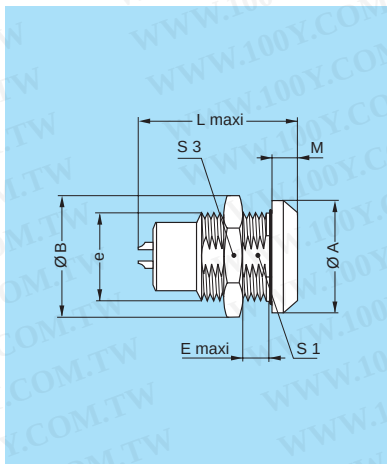
技术特性

机械性能和环境因素

特性	参数	标准
插拔次数	> 5000 次	IEC60512-5 试验 9a
湿度	在 60°C 时最高达 95%	
温度范围 (0L 到 1L)	-20°C, +100°C	
温度范围 (2L)	-20°C, +80°C	
盐雾腐蚀试验	> 144h	IEC60512-6 试验 11f

特性	参数	标准
环境实验	20/80/21	IEC60068-1
泄漏率 (He)	< 10 ⁻⁷ mbar.l.s ⁻¹	IEC60512-7 试验 14b
最大工作压强 ¹⁾	0L	60 bars
	1L	60 bars
	2L	40 bars

注: ¹⁾ 此参数对应的是组装后的插座能承受的最大压差



HGG 固定式插座, 螺母固定, 定位销 (G) 或定位销 (A ... C 和 L), 真空密封

编号		尺寸 (mm)							
型号	系列	A	B	e	E	L	M	S1	S3
HGG	0L	18	19.2	M14x1.0	5.5	21.7	4.0	12.5	17
HGG	1L	20	21.5	M16x1.0	9.0	30.0	4.5	14.5	19
HGG	2L	25	27.0	M20x1.0	13.0	33.7	5.0	18.5	24

P1 面板开口尺寸见第 153 页

定位销 (L 系列)

定位销和极性定位销组合

L 系列连接器外壳型号由三个字母组成，最后一个字母表示定位销位置和针芯类型（公针芯或母针芯）。

插座正视图	编号	定位销数量	角度	系列			针芯类型		注
				0L	1L	2L	插头	插座	
				0°	0°	0°	公针芯	母针芯	
	A	2	α	30°	30°	30°	公针芯	母针芯	●
	B	2		45°	45°	45°	公针芯	母针芯	○
	J	2	γ	105°	105°	105°	母针芯	公针芯	○
	L	2		75°	75°	75°	公针芯	母针芯	● ¹⁾

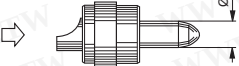
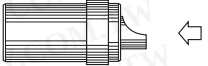
注：¹⁾ 此针芯类型不适用于K 系列。

● 常规型号，首先考虑选择

○ 特殊型号，有特殊需求时选择

针芯配置 (S、E 和 L 系列)

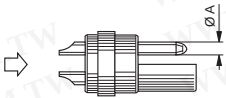
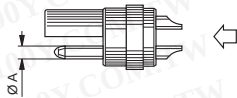
单芯

			编号	系列		Ø A (mm)	针芯类型		测试电压 (kV rms) ¹⁾	测试电压 (kV dc) ¹⁾	额定电流 (A) ¹⁾
				标准系列	防水系列		焊接针芯	压接针芯			
00			113	00	-	1.3	● ²⁾	●	0.8	1.2	8
0S 0E			116	0S	0E	1.6	● ²⁾	-	1.5	2.1	12
1S 1E			120	1S	1E	2.0	● ²⁾	-	1.7	2.4	18
			130	1S	1E	3.0	●	-	1.5	2.1	25
2S 2E			130	2S	2E	3.0	●	-	2.1	3.0	30
			140	2S	2E	4.0	●	-	1.7	2.4	40
3S 3E			140	3S	3E	4.0	●	-	2.3	3.3	43
			160	3S	3E	6.0	●	-	1.7	2.4	65
4S 4E			140	4S	Ø	4.0	●	-	3.0	4.2	46
			160	4S	4E	6.0	●	-	2.7	3.9	70
5S 5E			112	5S	5E	12.0	●	-	1.5	2.1	230

注: ¹⁾ 见第178页计算方法、注意事项和推荐标准。

²⁾ 针芯的另外一种配置方式: 插头=母针芯, 插座=公针芯。

多芯

			焊接型公针芯	焊接型母针芯	编号	系列		针芯数量	Ø A (mm)	针芯类型				测试电压 (kV rms) ^{1) 2)}	测试电压 (kV dc) ^{1) 2)}	额定电流 (A) ¹⁾
						标准系列	防水系列			焊接针芯	压接针芯	印制板接直针芯	印制板接弯角针芯			
0S 0E 0L					302	0S	0E	2	0.9	●	●	●	●	1.5	2.1	10 ³⁾
					303	0S	0E	3	0.7	●	○	●	●	1.0	1.5	7 ³⁾
					304	0S	0E	4	0.7	●	●	●	●	1.0	1.5	7 ³⁾
1S 1E 1L					302	1S	1E	2	1.3	●	●	●	●	1.2	1.8	15 ³⁾
					303	1S	1E	3	0.9	●	○	●	●	1.2	1.8	10 ³⁾
					304	1S	1E	4	0.9	●	●	●	●	1.2	1.8	10 ³⁾
					305	1S	1E	2 3	0.9 0.7	●	○	●	●	1.5 1.5	2.1 2.1	10 ³⁾ 7 ³⁾
					306	1S	1E	6	0.7	●	○	●	●	1.5	2.1	7 ³⁾
																
2S 2E 2L					302	2S	2E	2	1.6	●	○	○	○	1.7	2.4	20 ⁴⁾
					303	2S	2E	3	1.3	●	○	●	○	1.5	2.1	15 ⁴⁾
					304	2S	2E	4	1.3	●	○	●	●	1.7	2.4	15 ⁴⁾
					305	2S	2E	5	1.3	●	○	●	●	1.5	2.1	13 ⁴⁾
					306	2S	2E	6	1.3	●	● ⁵⁾	●	●	1.5	2.1	12
					307	2S	2E	3 4	1.3 0.9	●	○	●	●	0.8 0.8	1.2 1.2	12 ³⁾ 9 ³⁾
					308	2S	2E	8	0.9	●	○	●	●	0.8	1.2	9 ³⁾
					310	2S	2E	10	0.9	●	○	●	●	0.8	1.2	7 ³⁾
																
3S 3E					302	3S	3E	2	2.0	●	-	○	-	3.0	4.2	23
					303	3S	3E	3	2.0	●	-	○	-	1.5	2.1	20
					304	3S	3E	4	2.0	●	-	○	-	1.5	2.1	18
					305	3S	3E	2 3	2.0 1.3	●	-	○	-	1.5 1.5	2.1 2.1	18 14
					306	3S	3E	6	1.3	●	-	●	-	2.1	3.0	14
					307	3S	3E	7	1.3	●	-	●	-	1.0	1.5	12

注:

1) 见第178页计算方法、注意事项和推荐标准。

2) 最小测量值; 针芯到针芯或针芯到外壳。

3) 插座配印制板接 90° 弯角针芯时, 额定电流为 6A。

4) 插座配印制板接 90° 弯角针芯时, 额定电流为 12A。

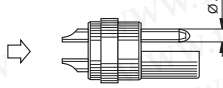
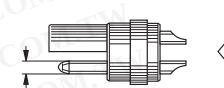
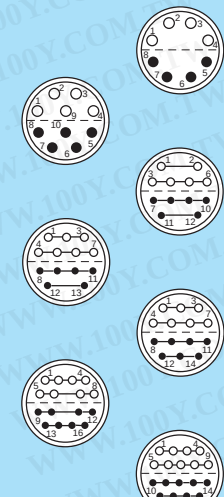
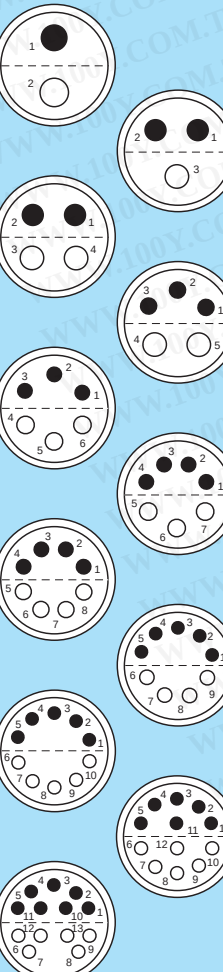
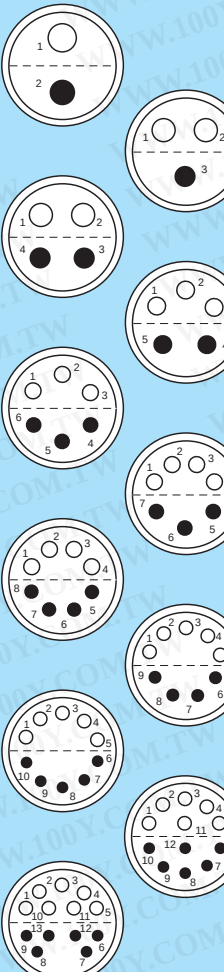
5) 仅适用于型号 FFL。

● 常规型号, 首先考虑选择

○ 特殊型号, 有特殊需求时选择



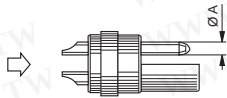
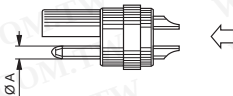
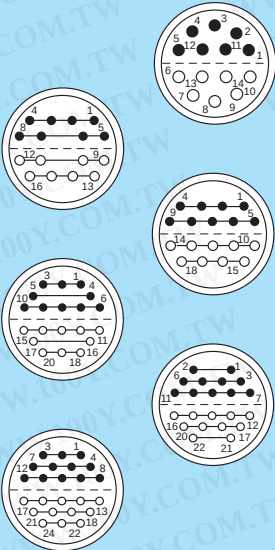
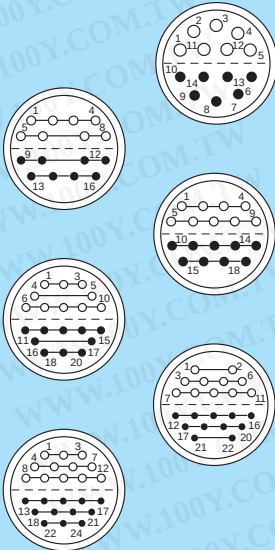
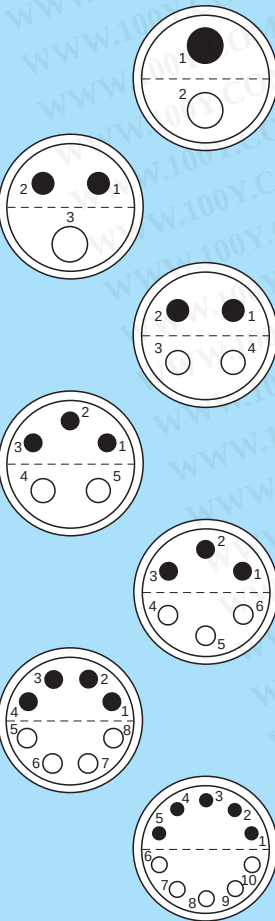
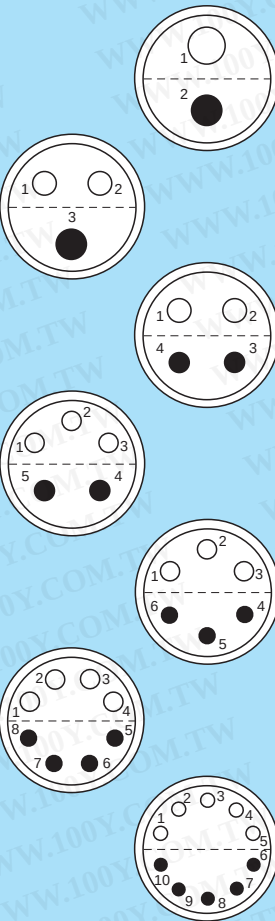
多芯

	 焊接型公针芯	 焊接型母针芯	编号	系列		针芯数量	ØA (mm)	针芯类型				测试电压 (kV rms) ^{1) 2)}	测试电压 (kV dc) ^{1) 2)}	额定电流 (A) ¹⁾
				标准系列	防水系列			焊接针芯	压接针芯	印制板接直针芯	印制板接弯角针芯			
3S 3E			308	3S	3E	8	1.3	●	-	●	○	1.0	1.5	10
			310	3S	3E	10	1.3	●	-	●	●	1.0	1.5	9
			312	3S	3E	12	0.9	●	-	●	●	1.5	2.1	8
			313	3S	3E	13	0.9	●	-	●	○	1.5	2.1	8
			314	3S	3E	14	0.9	●	-	●	●	1.5	2.1	7
			316	3S	3E	16	0.9	●	-	●	●	1.0	1.5	7
			318	3S	3E	18	0.9	●	-	●	○	1.0	1.5	6
4S 4E			302	4S	4E	2	4.0	●	-	○	-	2.1	3.0	35
			303	4S	4E	3	3.0	●	-	○	-	2.1	3.0	25
			304	4S	4E	4	3.0	●	-	○	-	2.1	3.0	22
			305	4S	4E	2 3	3.0 2.0	●	-	○	-	2.1 2.1	3.0 3.0	22 16
			306	4S	4E	6	2.0	●	-	○	-	2.1	3.0	16
			307	4S	4E	3 4	2.0 1.3	●	-	○	-	2.1 2.1	3.0 3.0	16 13
			308	4S	4E	8	1.3	●	-	○	-	2.7	3.9	13
			309	4S	4E	9	1.3	●	-	○	-	2.1	3.0	12
			310	4S	4E	10	1.3	●	-	○	-	2.1	3.0	11
			312	4S	4E	12	1.3	●	-	○	-	2.1	3.0	9
			313	4S	-	13	1.3	●	-	○	-	2.1	3.0	9

注: 1) 见第178页计算方法、注意事项和推荐标准。
2) 最小测量值; 针芯到针芯或针芯到外壳。

● 常规型号, 首先考虑选择
○ 特殊型号, 有特殊需求时选择

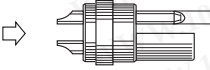
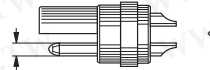
多芯

			系列	标准系列	防水系列	针芯数量	Ø A (mm)	针芯类型			测试电压 (kV rms) ^{1) 2)}	测试电压 (kV dc) ^{1) 2)}	额定电流 (A) ¹⁾
								焊接针芯	印制板接直针芯	印制板接弯角针芯			
4S 4E			314	4S	4E	14	1.3	●	○	-	2.1	3.0	9
			316	4S	4E	16	0.9	●	○	-	2.1	3.0	7
			318	4S	4E	18	0.9	●	○	-	2.1	3.0	7
			320	4S	4E	20	0.9	●	○	-	2.1	3.0	7
			322	4S	4E	22	0.9	●	○	-	2.1	3.0	7
			324	4S	4E	24	0.9	●	○	-	2.1	3.0	7
5S 5E			302	5S	5E	2	6.0	●	-	-	3.7	5.2	50
			303	5S	5E	1 2	6.0 4.0	●	-	-	3.7 3.7	5.2 5.2	50 35
			304	5S	5E	4	4.0	●	-	-	3.7	5.2	35
			305	5S	5E	2 3	4.0 3.0	●	-	-	3.0 3.0	4.2 4.2	35 25
			306	5S	5E	6	3.0	●	-	-	3.0	4.2	25
			308	5S	5E	8	3.0	●	-	-	2.1	3.0	22
			310	5S	5E	10	2.0	●	-	-	2.1	3.0	18

注: 1) 见第178页计算方法、注意事项和推荐标准。
 2) 最小测量值; 针芯到针芯或针芯到外壳。



多芯

			编号	系列		针芯数量	ØA (mm)	针芯类型			测试电压 (kV rms) ^{1) 2)}	测试电压 (kV dc) ^{1) 2)}	额定电流 (A) ¹⁾
				标准系列	防水系列			焊接针芯	印制板接直针芯	印制板接弯角针芯			
5S 5E			312	5S	5E	12	2.0	●	-	-	2.1	3.0	18
			314	5S	5E	2 12	3.0 2.0	●	-	-	1.8 1.8	2.4 2.4	20 15
			316	5S	5E	16	2.0	●	-	-	1.8	2.4	15
			318	5S	5E	2 16	3.0 1.6	●	-	-	1.8 1.8	2.4 2.4	18 11
			320	5S	5E	20	1.6	●	-	-	1.8	2.4	11
			322	5S	5E	2 20	3.0 1.6	●	-	-	1.8 1.8	2.4 2.4	16 9
			324	5S	5E	24	1.6	●	-	-	2.7	3.9	9
			330	5S	5E	30	1.3	●	-	-	1.8	2.4	8
			336	5S	5E	36	1.3	●	-	-	1.8	2.4	7
			340	5S	5E	40	1.3	●	-	-	1.2	1.8	7
			344	5S	5E	44	1.3	●	-	-	1.2	1.8	6
			348	5S	5E	48	1.3	●	-	-	1.2	1.8	6

注: 1) 见第178页计算方法、注意事项和推荐标准。
2) 最小测量值; 针芯到针芯或针芯到外壳。

多芯

6S
6E

焊接型公针芯	焊接型母针芯	编号	系列		针芯数量	Ø A (mm)	焊接针芯	测试电压 (KV rms) ^{1) 2)}	测试电压 (KV dc) ^{1) 2)}	额定电流 (A) ¹⁾
			标准系列	防水系列						
		303	-	6E	3	6.0	●	3.0	4.2	50
		304	6S	6E	4	8.0	●	3.0	4.2	60
		312	6S -	- 6E	12 12	4.0 5.0	●	2.1	3.0	22
		316	-	6E	16	3.0	●	1.5	2.1	14
		318	6S	-	18	4.0	●	1.2	1.8	16
		320	6S	-	20	3.0	●	1.5	2.1	14
		320	-	6E	20	3.0	●	1.5	2.1	14

注: 1) 见第178页计算方法、注意事项和推荐标准。
 2) 最小测量值; 针芯到针芯或针芯到外壳。



勝特力材料 886-3-5753170
勝特力电子(上海) 86-21-34970699
勝特力电子(深圳) 86-755-83298787
[Http://www.100y.com.tw](http://www.100y.com.tw)



多芯

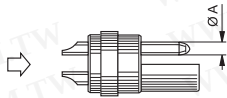
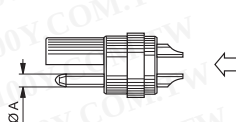
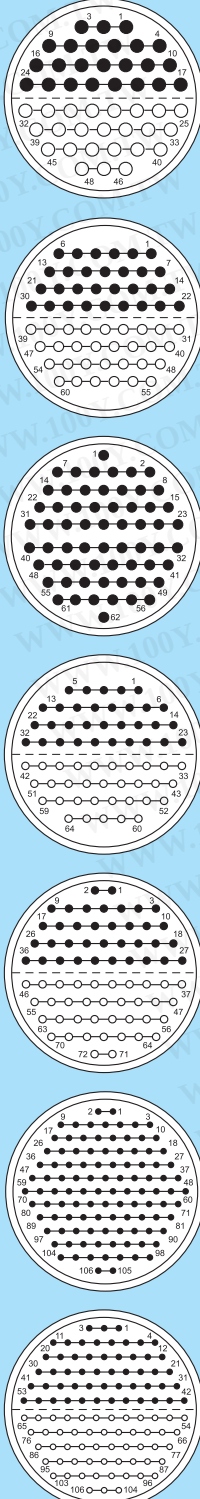
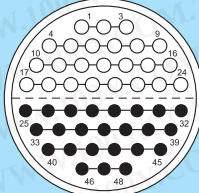
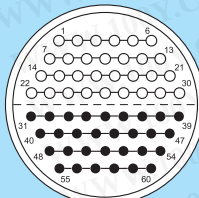
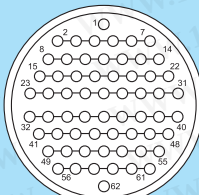
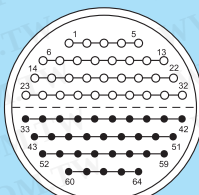
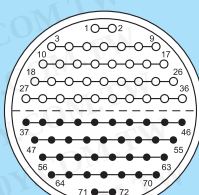
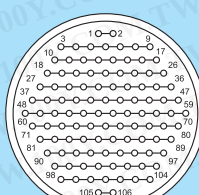
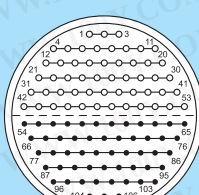
			编号	系列		针芯数量	Ø A (mm)	焊接针芯	测试电压 (kV rms) ^{1) 2)}	测试电压 (kV dc) ^{1) 2)}	额定电流 (A) ¹⁾
				标准系列	防水系列						
6S 6E			324	6S	-	24	3.0	●	1.2	1.8	12
			324	-	6E	24	3.0	●	1.2	1.8	12
			330	6S	6E	30	2.0	●	2.1	3.0	10
			332	-	6E	32	2.0	●	1.5	2.1	10
			336	6S	-	36	2.0	●	1.5	2.1	8
			336	-	6E	30 6	1.3 5.0	●	1.5 1.5	2.1 2.1	4 22
			340	-	6E	40	2.0	●	1.5	2.1	8

注: 1) 见第178页计算方法、注意事项和推荐标准。

2) 最小测量值; 针芯到针芯或针芯到外壳。

多芯

6S
6E

 焊接型公针芯	 焊接型母针芯	编号	系列		针芯数量	Ø A (mm)	焊接针芯	测试电压 (kV rms) ^{1) 2)}	测试电压 (kV dc) ^{1) 2)}	额定电流 (A) ¹⁾
			标准系列	防水系列						
		348	6S	6E	48	2.0	●	1.5	2.1	7
		360	6S	6E	60	1.6	●	1.5	2.1	5
		362	-	6E	62	1.6	●	1.5	2.1	5
		364	6S	6E	64	1.3	●	1.2	1.8	4
		372	6S	6E	72	1.3	●	1.2	1.8	4
		106	-	6E	106	0.9	●	0.8	1.2	2
		106	6S	-	106	0.9	●	0.8	1.2	2

注: 1) 见第178页计算方法、注意事项和推荐标准。
 2) 最小测量值; 针芯到针芯或针芯到外壳。

外壳 (S、E 和 L 系列)

编号	外壳和尾盖		锁定套筒 + 接地环		其它金属构件		备注	注
	材料	表面处理	材料	表面处理	材料	表面处理		
C	黄铜	铬	黄铜/青铜	镍 ²⁾	黄铜	镍		●
D	黄铜	镀金	黄铜/青铜	镍 ²⁾	黄铜	镍		○
N	黄铜	镍	黄铜/青铜	镍 ²⁾	黄铜	镍		○
K	黄铜	黑铬	黄铜/青铜	镍 ²⁾	黄铜	镍		●
S	不锈钢	-	黄铜/青铜	镍 ²⁾	黄铜	镍		○
T	不锈钢	-	不锈钢	-	黄铜	镍		○
U	不锈钢	-	不锈钢	-	不锈钢	-		○
L	铝合金	阳极电镀	黄铜/青铜	镍 ²⁾	黄铜	镍	1)	○
B	POM (黑色)	-	黄铜/青铜	镍 ²⁾	黄铜	镍	仅适于 FFP, ERN 和 PCP (S 系列)	●
G	PEEK (自然色)	-	黄铜/青铜	镍 ²⁾	黄铜	镍	仅适于 FFP, ERN 和 PCP (S 系列)	●
P	PSU	-	黄铜/青铜	镍 ²⁾	黄铜	镍	仅适于 FFL (S 系列) ¹⁾	●
R	PPSU	-	黄铜/青铜	镍 ²⁾	黄铜	镍	仅适于 FFL (S 系列) ¹⁾	●
H	PPS/黄铜	-/镍	黄铜/青铜	镍 ²⁾	黄铜	镍	仅适于 EPL 和 EXP (S 系列)	●

注：材料的详细性能和处理方法见第171页的介绍。

1) 颜色见《变量参数》。

2) E 系列和 L 系列的锁定套筒表面镀铬。

- 常规型号，首先考虑选择
- 特殊型号，有特殊需求时选择

绝缘体 (S、E 和 L 系列)

编号	材料	针芯类型	备注	注
L	PEEK	焊接或印制板接		●
Y	PEEK	压接		●
T	PTFE	焊接	仅适于单芯类型	●
T	FEP	焊接	仅适于 S 和 E 系列的多芯类型	○
V	PI	焊接	仅适于 S 和 E 系列的多芯类型	○
N	PA6.6	焊接	5S/5E 和 6S/6E 系列多芯类型的绝缘体材料	●

注：材料的详细性能见第175页的介绍。

- 常规型号，首先考虑选择
- 特殊型号，有特殊需求时选择

针芯 (S、E 和 L 系列)

焊接特性

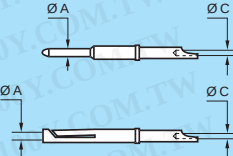
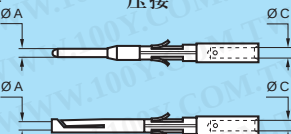
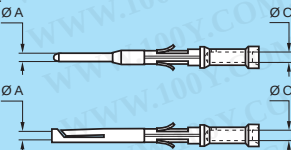
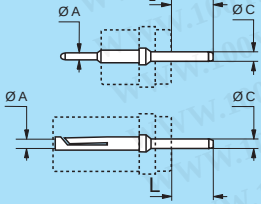
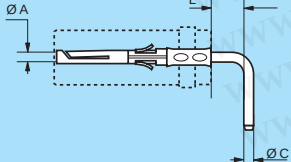
- 不需要定特殊的工具，只需要电烙铁就足够
- 特别适用于非常小而脆的线芯
- 针芯开有焊接杯口，能使焊锡充分流动

压接特性

- 实用、快速地固定针芯，并且在绝缘体外部操作
- 能在相对高温下使用
- 需要定购特殊工具
- 在压接针芯过程中不会有像焊接那样导致绝缘体被加热
- 抗拉伸强度高
- 完全彻底的无铅化解决方案

注：详情请看第176页

插头、浮动式或固定式插座的针芯参数

针芯类型	编号		针芯			芯线（内导体）						F _r ¹⁾ (N)	注	
	公针芯	母针芯	Ø A (mm)	Ø C (mm)	图示	实心芯线		绞织芯线						
						AWG 最大值	截面积 最大值 (mm ²)	AWG		截面积 (mm ²)				
								最小值	最大值	最小值	最大值			
焊接 	A	L	0.7	0.60	-	24	0.25	-	26	-	0.14	-	●	
			0.9	0.80	-	22	0.34	-	22 ²⁾	-	0.34	-		
			1.3	1.00	-	20	0.50	-	20 ²⁾	-	0.50	-		
			1.6	1.40	-	16	1.00	-	18	-	1.00	-		
			2.0	1.80	-	14	1.50	-	16	-	1.50	-		
			3.0	2.70	-	10	4.00	-	12	-	4.00	-		
			4.0	3.70	-	10	6.00	-	10	-	6.00	-		
			5.0	5.20	-	-	-	-	8	-	10.00	-		
			6.0	5.20	-	-	-	-	8	-	10.00	-		
			8.0	7.00	-	-	-	-	4	-	16.00	-		
			12.0	11.50	-	-	-	-	0	-	50.00	-		
图1 压接  图2 	C	M	0.7	0.80	1	-	-	26	22 ²⁾	0.140	0.34	22	●	
	B	P		0.45	2	-	-	32	28	0.035	0.09		○	
	C	M	0.9	1.10	1	-	-	24	20	0.250	0.50	30	●	
	B	P		0.80	2	-	-	26	22 ²⁾	0.140	0.34		○	
	G	U	1.3	0.45	2	-	-	32	28	0.035	0.09	40	○	
	C	M		1.40	1	-	-	20	18	0.500	1.00		●	
	B	P	1.6	1.10	2	-	-	24	20	0.250	0.50	50	○	
	G	U		0.80	2	-	-	26	22 ²⁾	0.140	0.34		○	
	C	M	2.0	1.90	1	-	-	18	14 ²⁾	1.000	1.50	65	●	
	B	P		1.40	2	-	-	22	18	0.340	1.00		○	
	B	P	2.0	2.40	1	-	-	16	12 ²⁾	1.500	2.50	65	●	
	B	P		1.90	2	-	-	18	14	1.000	1.50		○	
	印制板接 	D	N	尺寸L和C详见第159页PCB板钻孔参数部分。										●
	印制板接（弯角） 	V	V	尺寸L和C详见第160页PCB板钻孔参数部分。										●

注：¹⁾ 针芯在绝缘体内的保持力 (符合 IEC 60512-8 标准 15a 测试方法)。

²⁾ 对于一给定线规AWG，一些绞织芯线的直径设计大于焊接杯口的直径。确保芯线最大直径小于焊接杯口的直径ØC。

- 常规型号，首先考虑选择
 ○ 特殊型号，有特殊需求时选择

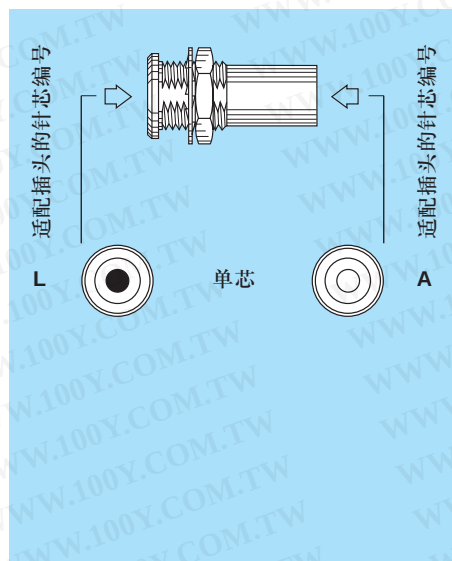
双通和T型插头的针芯参数

编号	针芯类型	备注
A	公针芯 - 母针芯	针芯配置的解释见第101页。
L	母针芯 - 公针芯	针芯配置的解释见第101页。
M	母针芯 - 母针芯	针芯配置的解释见第101页。
F	母针芯 - 母针芯 - 公针芯	适于S系列FTA型号

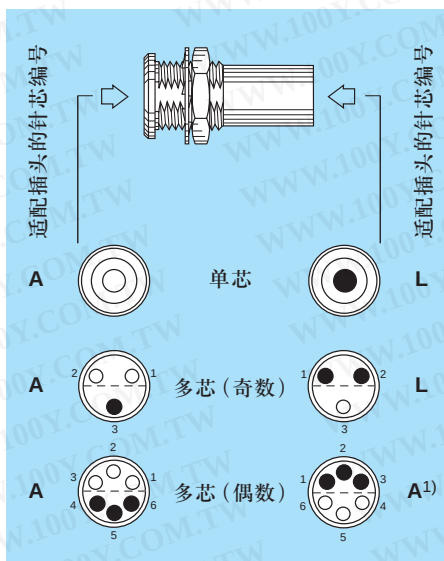


固定式双通 RMA, RAD 和 SWH 的针芯编号

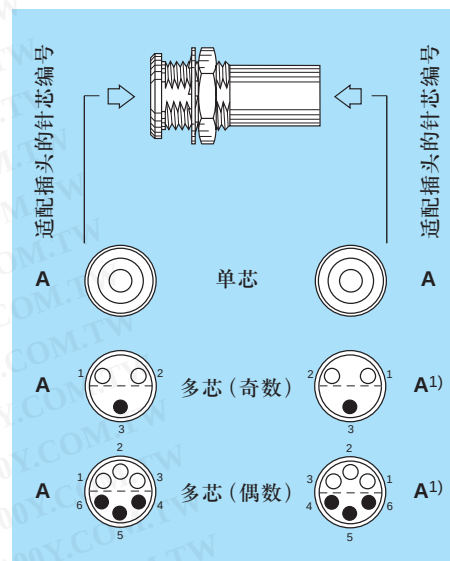
A 公针芯 - 母针芯



L 母针芯 - 公针芯



M 母针芯 - 母针芯



插头 (适配 RAD, RMA 和 SWH 双通) 的针芯编号

单芯类型:

- 编号 M 两端连接两个完全相同的配公针芯的插头 (针芯编号 A)。
编号 L RAD 和 SWH 型号的法兰端连接配公针芯的插头 (针芯编号 A)，另一端连接配母针芯的插头 (针芯编号 L)。
编号 A 与编号 L 的配置正好相反。

多芯类型:

- 编号 L RAD 和 SWH 型号的法兰端连接标准系列的插头 (针芯编号 A)，另一端连接配置相反的标准系列插头 (针芯编号参考上图)。
编号 M 连接两个标准系列的插头 (针芯编号 L)。仅适用于 RAD 和 RMA 型号。

注: ¹⁾ 这种双通的绝缘体上没有针芯序号，所以必须注意确保两端插头上的电缆按相同的顺序进行端接，以保证信号的正确连通。

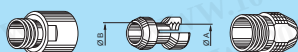
线夹 (S、E 和 L 系列)

适用于S系列的C型、K型和L型线夹

C 型



K 型

加大型
电缆线夹

L 型



勝特力材料 886-3-5753170
 勝特力电子(上海) 86-21-34970699
 勝特力电子(深圳) 86-755-83298787
[Http://www.100y.com.tw](http://www.100y.com.tw)

编号		线夹 Ø		电缆 Ø		注
类型	编码	Ø A	Ø B	最大值	最小值	
C	15	1.5	-	1.4	1.1	
C	17	1.7	1.5	1.6	1.3	
C	22	2.2	-	2.1	1.7	
C	27	2.7	-	2.6	2.2	
C	29	2.9	2.7	2.8	2.4	
C	31	3.1	2.7	3.0	2.6	
K	37	3.7	-	3.6	3.0	
K	42	4.2	3.7	4.1	3.3	
C	16	1.6	-	1.5	1.2	2)
C	19	1.9	1.6	1.8	1.5	2)
C	22	2.2	1.6	2.1	1.7	2)
C	27	2.7	2.4	2.6	2.2	2)
C	29	2.9	2.4	2.8	2.4	2)
C	31	3.1	2.4	3.0	2.6	2)
L	17	1.7	-	1.6	1.3	
L	22	2.2	-	2.1	1.7	
L	27	2.7	-	2.6	2.2	
L	29	2.9	-	2.8	2.4	
L	31	3.1	-	3.0	2.6	
C	17	1.7	-	1.6	1.3	
C	22	2.2	-	2.1	1.7	
C	27	2.7	-	2.6	2.2	
C	32	3.2	-	3.1	2.7	
C	37	3.7	-	3.6	3.0	
C	42	4.2	3.7	4.1	3.3	
C	44	4.4	3.7	4.3	3.5	
K	47	4.7	-	4.6	3.8	
K	52	5.2	-	5.1	4.3	
K	57	5.7	-	5.6	4.8	
K	62	6.2	5.2	6.1	5.3	
K	66	6.6	5.4	6.5	5.9	1)
K	68	6.8	-	6.7	6.0	1)
L	17	1.7	-	1.6	1.3	
L	22	2.2	-	2.1	1.7	
L	27	2.7	-	2.6	2.2	
L	32	3.2	-	3.1	2.7	
L	37	3.7	-	3.6	3.0	
L	42	4.2	-	4.1	3.3	
L	44	4.4	-	4.3	3.5	1)

编号		线夹 Ø		电缆 Ø		注
类型	编码	Ø A	Ø B	最大值	最小值	
C	17	1.7	-	1.6	1.3	
C	22	2.2	-	2.1	1.7	
C	27	2.7	-	2.6	2.2	
C	32	3.2	-	3.1	2.6	
C	37	3.7	-	3.6	2.7	
C	42	4.2	-	4.1	3.3	
C	47	4.7	-	4.6	3.8	
C	52	5.2	-	5.1	4.3	
C	57	5.7	-	5.6	4.8	
C	62	6.2	5.2	6.1	5.3	
C	66	6.6	5.4	6.5	5.9	1)
C	68	6.8	-	6.7	6.0	1)
K	72	7.2	6.7	7.0	6.1	
K	77	7.7	6.7	7.5	7.1	
K	82	8.2	6.7	8.0	7.6	
K	87	8.7	6.7	8.5	8.1	
L	17	1.7	-	1.6	1.3	
L	22	2.2	-	2.1	1.7	
L	27	2.7	-	2.6	2.2	
L	32	3.2	-	3.1	2.6	
L	37	3.7	-	3.6	2.7	
L	42	4.2	-	4.1	3.3	
L	47	4.7	-	4.6	3.8	
L	50	5.0	-	4.9	4.7	
L	52	5.2	-	5.1	4.3	
L	57	5.7	-	5.6	4.8	
L	62	6.2	-	6.1	5.3	
L	66	6.6	-	6.5	5.9	1)

注:

1) 这些线夹不适用于含护套型尾盖的连接器型号。

2) 这些线夹适用于型号 FLA。

所有尺寸单位为毫米 mm。



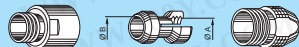
适用于S系列的C型、K型和L型线夹

C 型



K 型

加大型
电缆线夹



L 型



勝特力材料 886-3-5753170
勝特力电子(上海) 86-21-34970699
勝特力电子(深圳) 86-755-83298787
[Http://www.100y.com.tw](http://www.100y.com.tw)

2S	编号		线夹 Ø		电缆 Ø		注
	类型	编码	Ø A	Ø B	最大值	最小值	
2S	C	17	1.7	-	1.6	1.3	
	C	27	2.7	-	2.5	1.7	
	C	32	3.2	-	3.0	2.5	
	C	42	4.2	-	4.0	3.1	
	C	52	5.2	-	5.0	4.1	
	C	62	6.2	-	6.0	5.1	
	C	72	7.2	6.7	7.0	6.1	
	C	77	7.7	6.7	7.5	7.1	
	C	82	8.2	6.7	8.0	7.6	
	C	87	8.7	6.7	8.5	8.1	
	K	92	9.2	8.7	9.0	8.1	
	K	97	9.7	8.7	9.5	9.1	
	K	10	10.2	8.7	10.0	9.6	
	K	11	10.7	9.0	10.5	10.1	
	L	27	2.7	-	2.5	1.7	
	L	32	3.2	-	3.0	2.5	
	L	42	4.2	-	4.0	3.1	
	L	52	5.2	-	5.0	4.1	
3S	L	62	6.2	-	6.0	5.1	
	L	72	7.2	-	7.0	6.1	
	L	77	7.9	-	7.5	7.1	
	L	82	8.2	-	8.0	7.6	
	L	87	8.7	-	8.5	8.1	1)
	C	32	3.2	-	3.0	2.5	
	C	42	4.2	-	4.0	3.1	
	C	52	5.2	-	5.0	4.1	
	C	62	6.2	-	6.0	5.1	
	C	72	7.2	-	7.0	6.1	
	C	82	8.2	-	8.0	7.1	
	C	92	9.2	8.7	9.0	8.1	
	C	97	9.7	8.7	9.5	9.1	
	C	10	10.2	8.7	10.0	9.6	
	C	11	10.7	9.0	10.5	10.1	
	K	12	12.2	-	12.0	11.1	
	K	13	13.2	12.2	13.0	12.1	
	L	42	4.2	-	4.0	3.1	
	L	52	5.2	-	5.0	4.1	
	L	62	6.2	-	6.0	5.1	
	L	72	7.2	-	7.0	6.1	
	L	82	8.2	-	8.0	7.1	
	L	92	9.2	-	9.0	8.1	
	L	97	9.7	-	9.5	9.1	
	L	10	10.2	-	10.0	9.6	
	L	11	10.7	-	10.5	10.1	1)

4S	编号		线夹 Ø		电缆 Ø		注
	类型	编码	Ø A	Ø B	最大值	最小值	
4S	C	52	5.2	-	5.0	4.1	
	C	62	6.2	-	6.0	5.1	
	C	72	7.2	-	7.0	6.1	
	C	82	8.2	-	8.0	7.1	
	C	92	9.2	-	9.0	8.1	
	C	10	10.2	-	10.0	9.1	
	C	11	11.2	-	11.0	10.1	
	C	12	12.2	-	12.0	11.1	
	C	13	13.2	12.2	13.0	12.6	
	K	14	14.2	-	14.0	13.1	1)
	K	15	15.2	-	15.0	14.1	1)
	K	16	16.2	-	16.0	15.1	1)
	K	17	17.2	-	17.0	16.1	1)
	K	18	18.2	-	18.0	17.1	1)
	K	19	19.2	-	19.0	18.1	1)
	K	20	20.2	19.7	20.0	19.1	1)
	K	21	21.2	19.7	21.0	20.1	1)
	K	22	22.2	19.7	22.0	21.1	1)
	L	52	5.2	-	5.0	4.1	
	L	62	6.2	-	6.0	5.1	
	L	72	7.2	-	7.0	6.1	
	L	82	8.2	-	8.0	7.1	
	L	92	9.2	-	9.0	8.1	
	L	10	10.2	-	10.0	9.1	
	L	11	11.2	-	11.0	10.1	
	L	12	12.2	-	12.0	11.1	
	L	13	13.2	-	13.0	12.6	

注:

1) 这些线夹不适用于含带护套型尾盖的连接器型号。
所有尺寸单位为毫米 mm。

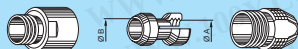
适用于S系列的C型、K型和L型线夹

C 型



K 型

加大型
电缆线夹



L 型



勝特力材料 886-3-5753170
勝特力电子(上海) 86-21-34970699
勝特力电子(深圳) 86-755-83298787
[Http://www.100y.com.tw](http://www.100y.com.tw)

5S

编号		线夹 Ø		电缆 Ø	
类型	编码	Ø A	Ø B	最大值	最小值
C	72	7.2	-	7.0	6.1
C	82	8.2	-	8.0	7.1
C	92	9.2	-	9.0	8.1
C	10	10.2	-	10.0	9.1
C	11	11.2	-	11.0	10.1
C	12	12.2	-	12.0	11.1
C	13	13.2	-	13.0	12.1
C	14	14.2	-	14.0	13.1
C	15	15.2	-	15.0	14.1
C	16	16.2	-	16.0	15.1
C	17	17.2	-	17.0	16.1
C	18	18.2	-	18.0	17.1
C	19	19.2	-	19.0	18.1
C	20	20.2	19.7	20.0	19.1
C	21	21.2	19.7	21.0	20.1
C	22	22.2	19.7	22.0	21.1
K	23	23.2	-	23.0	22.1
K	24	24.2	-	24.0	23.1
K	25	25.2	-	25.0	24.1
K	26	26.2	-	26.0	25.1
K	27	27.2	-	27.0	26.1
K	28	28.2	27.2	28.0	27.1
K	29	29.2	27.2	29.0	28.1
K	30	30.2	27.2	30.0	29.1
L	92	9.2	-	9.0	8.1
L	10	10.2	-	10.0	9.1
L	11	11.2	-	11.0	10.1
L	12	12.2	-	12.0	11.1
L	13	13.2	-	13.0	12.1
L	14	14.2	-	14.0	13.1
L	15	15.2	-	15.0	14.1
L	16	16.2	-	16.0	15.1
L	17	17.2	-	17.0	16.1
L	18	18.2	-	18.0	17.1
L	19	19.2	-	19.0	18.1
L	20	20.2	-	20.0	19.1
L	21	21.2	-	21.0	20.1

注：5S.112 只适用 L 型线夹。
所有尺寸单位为毫米 mm。

6S

编号		线夹 Ø		电缆 Ø	
类型	编码	Ø A	Ø B	最大值	最小值
C	12	12.2	-	12.0	11.1
C	13	13.2	-	13.0	12.1
C	14	14.2	-	14.0	13.1
C	15	15.2	-	15.0	14.1
C	16	16.2	-	16.0	15.1
C	17	17.2	-	17.0	16.1
C	18	18.2	-	18.0	17.1
C	19	19.2	-	19.0	18.1
C	20	20.2	-	20.0	19.1
C	21	21.2	-	21.0	20.1
C	22	22.2	-	22.0	21.1
C	23	23.2	-	23.0	22.1
C	24	24.2	-	24.0	23.1
C	25	25.2	-	25.0	24.1
C	26	26.2	-	26.0	25.1
C	27	27.2	-	27.0	26.1
C	28	28.2	27.2	28.0	27.1
C	29	29.2	27.2	29.0	28.1
C	30	30.2	27.2	30.0	29.1
L	12	12.2	-	12.0	11.1
L	13	13.2	-	13.0	12.1
L	14	14.2	-	14.0	13.1
L	15	15.2	-	15.0	14.1
L	16	16.2	-	16.0	15.1
L	17	17.2	-	17.0	16.1
L	18	18.2	-	18.0	17.1
L	19	19.2	-	19.0	18.1
L	20	20.2	-	20.0	19.1
L	21	21.2	-	21.0	20.1
L	22	22.2	-	22.0	21.1
L	23	23.2	-	23.0	22.1
L	24	24.2	-	24.0	23.1
L	25	25.2	-	25.0	24.1
L	26	26.2	-	26.0	25.1
L	27	27.2	-	27.0	26.1
L	28	28.2	-	28.0	27.1
L	29	29.2	-	29.0	28.1
L	30	30.2	-	30.0	29.1



适用于E系列的C型和K型线夹

C 型



K 型

加大型
电缆线夹

勝特力材料 886-3-5753170
勝特力电子(上海) 86-21-34970699
勝特力电子(深圳) 86-755-83298787
[Http://www.100y.com.tw](http://www.100y.com.tw)

	编号		线夹 Ø		电缆 Ø	
	类型	编码	Ø A	Ø B	最大值	最小值
0E	C	10	1.6	-	1.2	1.0
	C	15	1.6	-	1.5	1.3
	C	20	2.1	-	2.0	1.6
	C	25	3.1	-	2.5	2.1
	C	30	3.1	-	3.0	2.6
	C	35	4.2	4.2	3.5	3.1
	C	40	4.2	4.2	4.0	3.6
	C	45	5.2	5.2	4.5	4.1
	C	50	5.2	5.2	5.0	4.6
1E	C	15	1.6	-	1.5	1.3
	C	20	2.2	-	2.0	1.6
	C	25	3.2	-	2.5	2.1
	C	30	3.2	-	3.0	2.6
	C	35	4.2	-	3.5	3.1
	C	40	4.2	-	4.0	3.6
	C	45	5.2	-	4.5	4.1
	C	50	5.2	-	5.0	4.6
	C	55	6.2	6.2	5.5	5.1
	C	60	6.2	6.2	6.0	5.6
	C	65	7.2	6.7	6.5	6.1
	K	70	7.2	-	7.0	6.6
	K	75	8.2	8.2	7.5	7.1
	K	80	8.2	8.2	8.0	7.6
	K	85	9.2	8.6	8.5	8.1
2E	C	15	2.2	-	1.5	1.3
	C	20	2.2	-	2.0	1.6
	C	25	3.2	-	2.5	2.1
	C	30	3.2	-	3.0	2.6
	C	35	4.2	-	3.5	3.1
	C	40	4.2	-	4.0	3.6
	C	45	5.2	-	4.5	4.1
	C	50	5.2	-	5.0	4.6
	C	55	6.2	-	5.5	5.1
	C	60	6.2	-	6.0	5.6
	C	65	7.2	-	6.5	6.1
	C	70	7.2	-	7.0	6.6
	C	75	8.2	8.2	7.5	7.1
	C	80	8.2	8.2	8.0	7.6
	C	85	9.2	8.6	8.5	8.1
	K	90	9.2	-	9.0	8.6
	K	95	10.2	10.2	9.5	9.1
	K	10	10.2	10.2	10.0	9.6
	K	11	11.2	10.6	10.5	10.1

注：所有尺寸单位为毫米 mm。

	编号		线夹 Ø		电缆 Ø	
	类型	编码	Ø A	Ø B	最大值	最小值
3E	C	30	3.2	-	3.0	2.6
	C	35	4.2	-	3.5	3.1
	C	40	4.2	-	4.0	3.6
	C	45	5.2	-	4.5	4.1
	C	50	5.2	-	5.0	4.6
	C	55	6.2	-	5.5	5.1
	C	60	6.2	-	6.0	5.6
	C	65	7.2	-	6.5	6.1
	C	70	7.2	-	7.0	6.6
	C	75	8.2	-	7.5	7.1
	C	80	8.2	-	8.0	7.6
	C	85	9.2	-	8.5	8.1
	C	90	9.2	-	9.0	8.6
	C	95	10.2	10.2	9.5	9.1
	C	10	10.2	10.2	10.0	9.6
4E	C	11	11.2	10.6	10.5	10.1
	K	11	12.3	-	12.0	10.6
	K	12	13.8	13.8	12.8	12.1
	K	13	13.8	13.8	13.5	12.9
	K	14	15.3	15.3	14.0	13.6
	K	15	15.3	15.3	15.0	14.1
	C	50	6.3	-	5.0	4.8
	C	55	6.3	-	5.5	5.1
	C	60	6.3	-	6.0	5.6
	C	65	7.3	-	6.5	6.1
	C	70	7.3	-	7.0	6.6
	C	75	8.3	-	7.5	7.1
	C	80	8.3	-	8.0	7.6
	C	85	9.3	-	8.5	8.1
	C	90	9.3	-	9.0	8.6
	C	95	10.8	-	9.5	9.1
	C	10	10.8	-	10.5	9.6
	C	11	12.3	-	12.0	10.6
	C	12	13.8	13.8	12.8	12.1
	C	13	13.8	13.8	13.5	12.9
	C	14	15.3	15.3	14.0	13.6
	C	15	15.3	15.3	15.0	14.1
	K	16	17.8	-	16.5	15.6
	K	17	17.8	-	17.5	16.6
	K	18	19.8	-	18.5	17.6
	K	19	19.8	-	19.5	18.6
	K	20	21.8	-	20.5	19.6
	K	21	21.8	-	21.5	20.6
	K	22	23.8	23.8	22.5	21.6
	K	23	23.8	23.8	23.5	22.6

适用于E系列的C型和K型线夹

C 型



K 型

加大型
电缆线夹

编号		线夹 Ø		电缆 Ø	
类型	编码	Ø A	Ø B	最大值	最小值
5E	C 10	11.8	-	10.5	9.6
	C 11	11.8	-	11.5	10.6
	C 12	13.8	-	12.5	11.6
	C 13	13.8	-	13.5	12.6
	C 14	15.8	-	14.5	13.6
	C 15	15.8	-	15.5	14.6
	C 16	17.8	-	16.5	15.6
	C 17	17.8	-	17.5	16.6
	C 18	19.8	-	18.5	17.6
	C 19	19.8	-	19.5	18.6
	C 20	21.8	-	20.5	19.6
	C 21	21.8	-	21.5	20.6
	C 22	23.8	23.8	22.5	21.6
	C 23	23.8	23.8	23.5	22.6

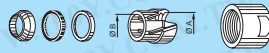
勝特力材料 886-8-5753170
 勝特力电子(上海) 86-21-34970699
 勝特力电子(深圳) 86-755-83298787
[Http://www.100y.com.tw](http://www.100y.com.tw)

编号		线夹 Ø		电缆 Ø	
类型	编码	Ø A	Ø B	最大值	最小值
6E	C 14	14.2	-	14.0	13.0
	C 15	15.2	-	15.0	14.1
	C 16	15.7	-	15.5	14.6
	C 17	16.7	-	16.5	15.6
	C 18	18.2	-	18.0	17.1
	C 21	23.2	-	21.5	20.6
	C 22	23.2	-	22.0	21.1
	C 23	23.2	-	23.0	22.1
	C 27	27.2	-	27.0	26.1
	L 30	30.2	-	30.0	29.5

注：所有尺寸单位为毫米 mm。

适用于L系列的C型和K型线夹

C 型



K 型

加大型
电缆线夹

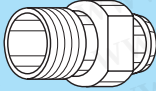
编号		线夹 Ø		电缆 Ø	
类型	编码	Ø A	Ø B	最大值	最小值
0L	C 10	1.6	-	1.2	1.0
	C 15	1.6	-	1.5	1.3
	C 20	2.1	-	2.0	1.6
	C 25	3.1	-	2.5	2.1
	C 30	3.1	-	3.0	2.6
	C 35	4.2	4.2	3.5	3.1
	C 40	4.2	4.2	4.0	3.6
	C 45	5.2	5.2	4.5	4.1
	C 50	5.2	5.2	5.0	4.6
1L	C 15	1.6	-	1.5	1.3
	C 20	2.2	-	2.0	1.6
	C 25	3.2	-	2.5	2.1
	C 30	3.2	-	3.0	2.6
	C 35	4.2	-	3.5	3.1
	C 40	4.2	-	4.0	3.6
	C 45	5.2	-	4.5	4.1
	C 50	5.2	-	5.0	4.6
	C 55	6.2	6.2	5.5	5.1
	C 60	6.2	6.2	6.0	5.6
	C 65	7.2	6.7	6.5	6.1
	K 70	7.2	-	7.0	6.6
	K 75	8.2	8.2	7.5	7.1
	K 80	8.2	8.2	8.0	7.6
	K 85	9.2	8.6	8.5	8.1

编号		线夹 Ø		电缆 Ø	
类型	编码	Ø A	Ø B	最大值	最小值
2L	C 15	2.2	-	1.5	1.3
	C 20	2.2	-	2.0	1.6
	C 25	3.2	-	2.5	2.1
	C 30	3.2	-	3.0	2.6
	C 35	4.2	-	3.5	3.1
	C 40	4.2	-	4.0	3.6
	C 45	5.2	-	4.5	4.1
	C 50	5.2	-	5.0	4.6
	C 55	6.2	-	5.5	5.1
	C 60	6.2	-	6.0	5.6
	C 65	7.2	-	6.5	6.1
	C 70	7.2	-	7.0	6.6
	C 75	8.2	8.2	7.5	7.1
	C 80	8.2	8.2	8.0	7.6
K	90	9.2	-	9.0	8.6
	95	10.2	10.2	9.5	9.1
	10	10.2	10.2	10.0	9.6
	11	11.2	10.6	10.5	10.1

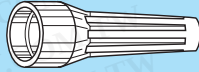
注：所有尺寸单位为毫米 mm。

变量参数 (S, E 和 L 系列)

适用于S系列的护套和适配线夹

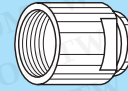


需另外订购

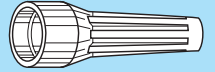


编号	类型	尾盖		需另外订购 (见第141和142页)
		类型	编码	
00	Z	C	15 到 31	GMA.00.0●●.D●
		K	37 到 42	GMA.0B.0●●.D●
		L	17 到 31	GMA.00.0●●.D●
0S	Z	C	27 到 42	GMA.0B.0●●.D●
		K	47 到 62	GMA.1B.0●●.D●
		L	27 到 42	GMA.0B.0●●.D●
1S	Z	C	27 到 62	GMA.1B.0●●.D●
		K	72 到 82	GMA.2B.0●●.D●
		L	27 到 62	GMA.1B.0●●.D●
2S	Z	C	42 到 82	GMA.2B.0●●.D●
		K	92 到 10	GMA.3B.0●●.D●
		L	42 到 82	GMA.2B.0●●.D●
3S	Z	C	52 到 10	GMA.3B.0●●.D●
		K	12 到 13	GMA.4B.0●●.D●
		L	52 到 10	GMA.3B.0●●.D●
4S	Z	C	82 到 13	GMA.4B.0●●.D●
		L	82 到 13	GMA.4B.0●●.D●

适用于E系列和L系列的护套和适配线夹



需另外订购



编号	类型	尾盖		需另外订购 (见第141和142页)
		类型	编码	
0E 0L	Z	C	10 到 50	GMA.0B.●●●.●●
1E 1L	Z	C	15 到 65	GMA.1B.●●●.●●
		K	70 到 85	GMA.2B.●●●.●●
2E 2L	Z	C	15 到 85	GMA.2B.●●●.●●
		K	90 到 10	GMA.3B.●●●.●●
3E	Z	C	30 到 10	GMA.3B.●●●.●●
		K	11 到 15	GMA.4B.●●●.●●
4E	Z	C	50 到 15	GMA.4B.●●●.●●

注：所有尺寸单位为毫米

连接器外壳 (塑料和铝合金材质) 的颜色

编号	颜色	塑料外壳连接器			铝合金外壳连接器	
		PSU	PPSU	PA.6	阳极电镀颜色	带护套型尾盖的 阳极电镀颜色
A	蓝色			●	●	
B	白色	●		●		
G	灰色	●		●		
J	黄色			●	●	
M	棕色			●		
N	黑色			●	●	
R	红色			●	●	
S	橙色			●		
T	自然色				●	
V	绿色			●	●	
L	黑色					●
X	自然色					●
F	奶油色		●			

注：含带护套型尾盖的连接器也有其它的电镀颜色。如有需要，请与我们联系。

水密和真空密封的插座和双通型号 (S, E 和 L 系列)

型号	编号	
	水密	真空密封
S	P	PV
E	P	PV
L	P	PV

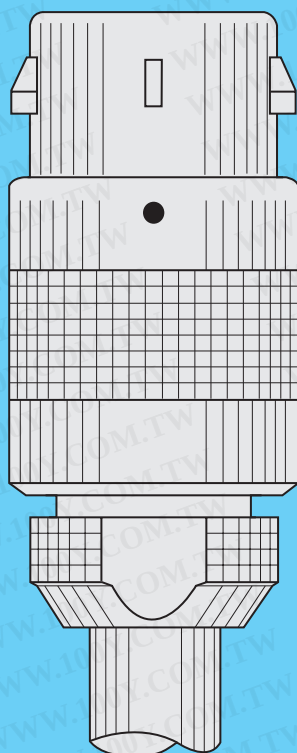
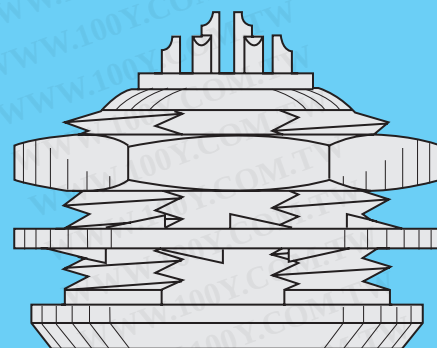
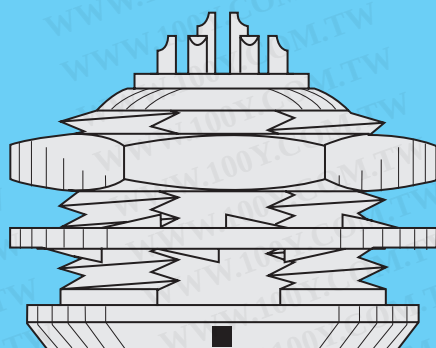
O 形圈和弹性垫圈材料 (E 系列和 L 系列)

标准连接器出厂时配有硅胶材料的 O 形圈和弹性垫圈。真空密封型号则配有氟橡胶 (Viton®) 材料的弹性垫圈，用字母“PV”标示。其他弹性垫圈材料可按特殊要求提供。

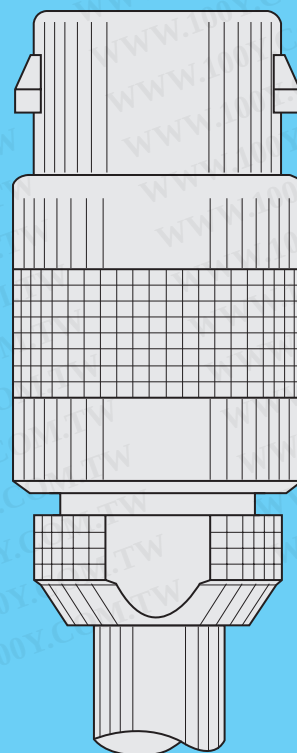
O 形圈材料	编号
FPM (Viton®)	H
EPDM	E

勝特力材料 886-3-5753170
勝特力电子(上海) 86-21-34970699
勝特力电子(深圳) 86-755-83298787
[Http://www.100y.com.tw](http://www.100y.com.tw)

勝特力材料 886-3-5753170
勝特力电子(上海) 86-21-34970699
勝特力电子(深圳) 86-755-83298787
[Http://www.100y.com.tw](http://www.100y.com.tw)



2G 系列



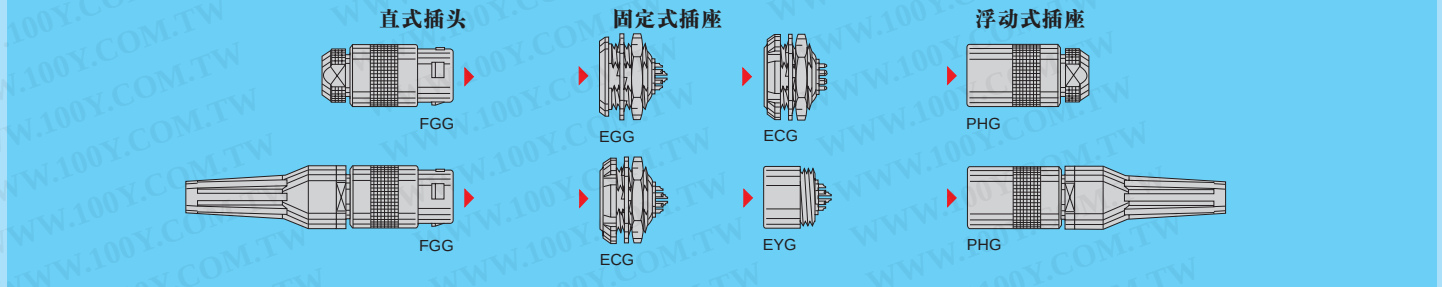
2C 系列

2G 系列

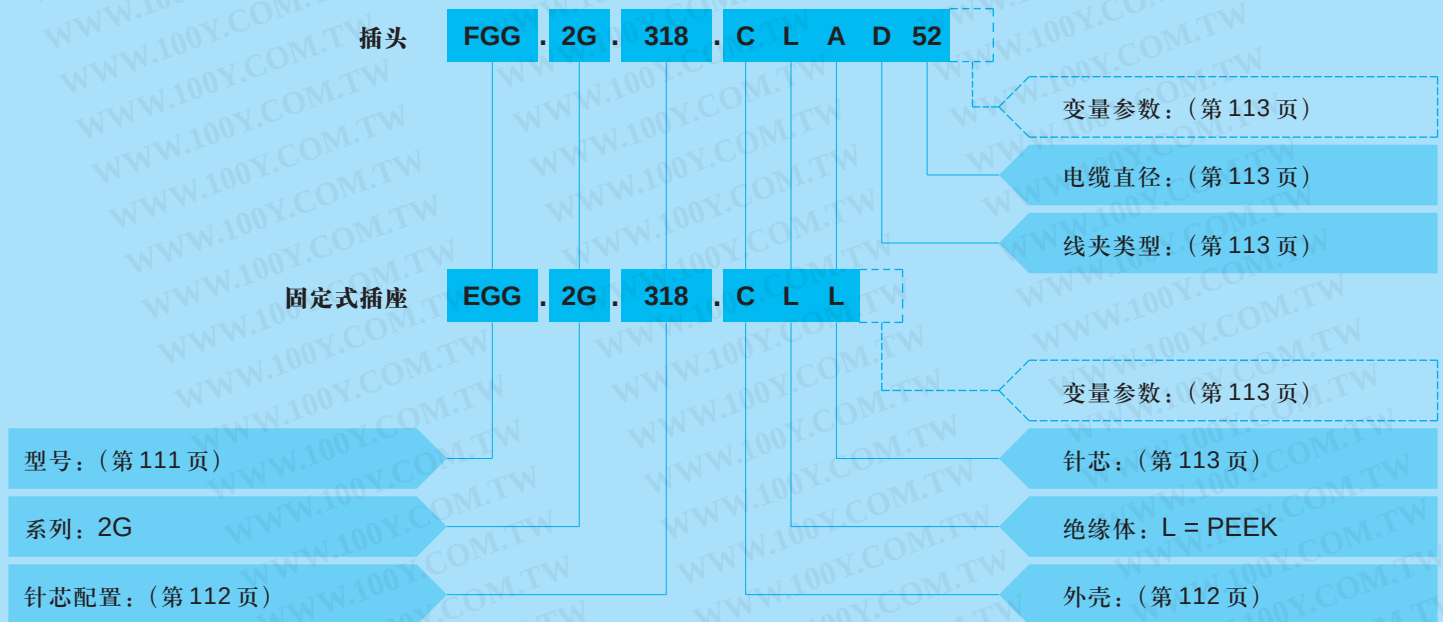
勝特力材料 886-3-5753170
 勝特力电子(上海) 86-21-34970699
 勝特力电子(深圳) 86-755-83298787
[Http://www.100y.com.tw](http://www.100y.com.tw)

带定位销(G)的2G系列可提供多芯类型18芯的插芯配置；和2C系列一样，都具有尺寸小、节省空间的优点。

金属外壳型号(第111页)



产品编号规则



产品编号举例

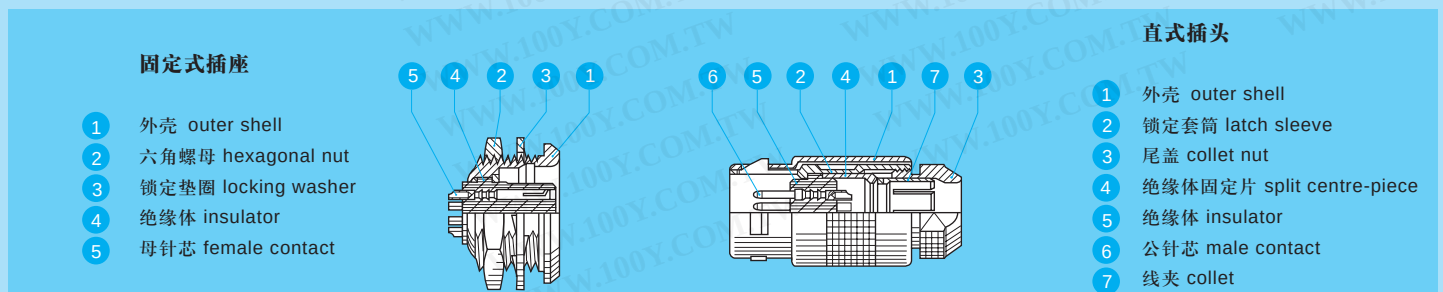
带线夹的直式插头:

FGG.2G.318.CLAD52 = 直式插头，带线夹，2G系列，多芯类型，18芯，黄铜镀铬外壳，PEEK绝缘体，焊接型公针芯，适用于外径5.2mm电缆的D型线夹

固定式插座:

EGG.2G.318.CLL = 固定式插座，螺母固定，2G系列，多芯类型，18芯，黄铜镀铬外壳，PEEK绝缘体，焊接型母针芯

产品剖面图



金属外壳型号

技术特性

机械性能和环境因素

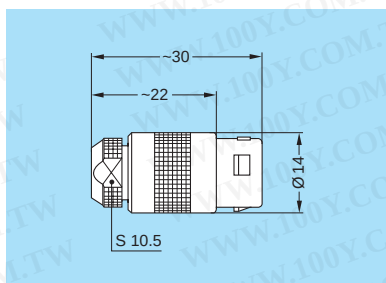
特性	参数	标准
插拔次数	> 500 次	IEC60512-5 试验 9a
湿度	在 60°C 时最高达 95%	
温度范围	-55°C, +250°C	
盐雾腐蚀试验	> 144 h	IEC60512-6 试验 11f
防护等级	IP 50	IEC60529
环境实验	55/175/21	IEC60068-1

勝特力材料 886-3-5753170
 勝特力电子(上海) 86-21-34970699
 勝特力电子(深圳) 86-755-83298787
[Http://www.100y.com.tw](http://www.100y.com.tw)

注:

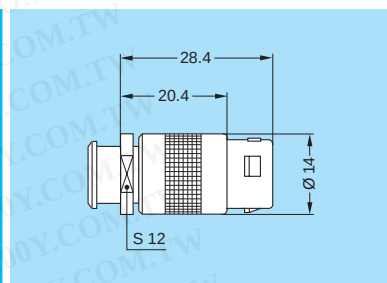
以上数据是对外壳采用黄铜镀铬, 绝缘体采用 PEEK 材料的 FGG 插头和 EGG 插座进行的各项试验得出。详细的电气性能、材料和表面处理方法在第 171 页的《技术特性》章节中进行了介绍。

FGG.2G 直式插头, 定位销 (G), 电缆线夹



电缆组装见第 115 页

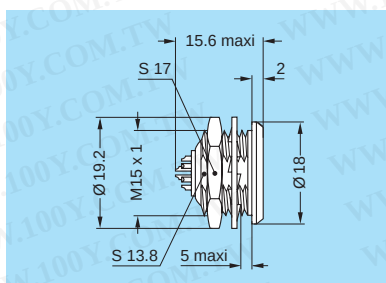
FGG.2G 直式插头, 定位销 (G), 电缆线夹和带护套型的尾盖¹⁾



电缆组装见第 115 页

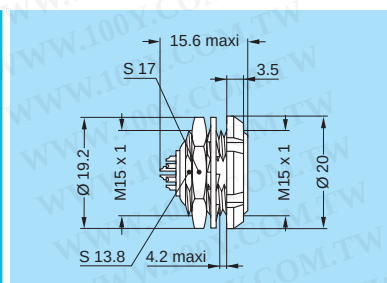
注: ¹⁾ 定购时, 在编号最后加一字母“Z”。
护套需另外订购 (见第 141 页)。

EGG.2G 固定式插座, 螺母固定, 定位销 (G)



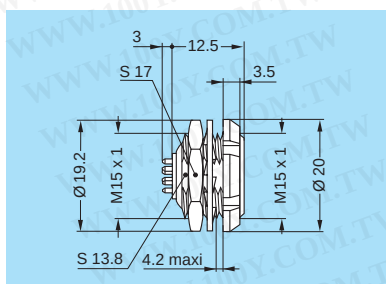
面板开口尺寸见第 115 页

ECG.2G 带有两个圆螺母的固定式插座, 定位销 (G) (后面板安装)



面板开口尺寸见第 115 页

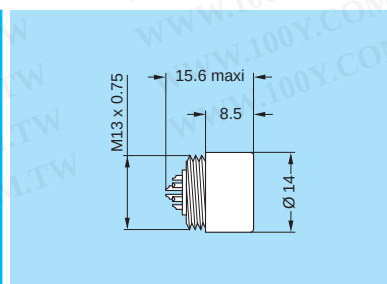
ECG.2G 固定式插座, 带两个圆螺母, 定位销 (G), 适用于印制线路板的直针芯 (后面板安装)



面板开口尺寸见第 115 页

PCB 板钻孔参数见第 115 页

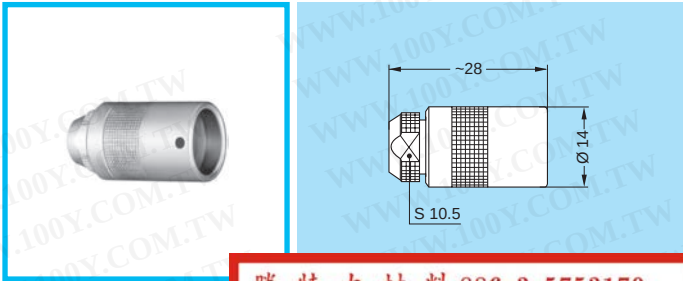
EYG.2G 固定式插座, 定位销 (G), 凸出式外壳 (面板螺纹固定)



面板开口尺寸见第 115 页

注: 所有尺寸单位为毫米 mm。

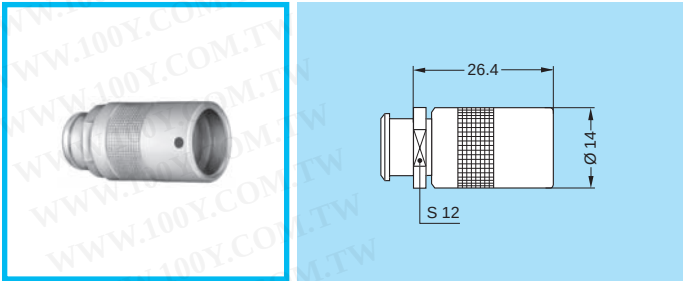
PHG.2G 浮动式插座，定位销 (G)，电缆线夹



电缆组装见第 115 页

勝特力材料 886-3-5753170
勝特力电子(上海) 86-21-34970699
勝特力电子(深圳) 86-755-83298787
[Http://www.100y.com.tw](http://www.100y.com.tw)

PHG.2G 浮动式插座，定位销 (G)，电缆线夹
和帶护套型的尾盖¹⁾



电缆组装见第 115 页

注：¹⁾ 订购时，在编号最后加一字母“Z”。
护套需另外订购（见第141页）。

针芯配置 (2G 系列)

			类型	针芯数量	ØA (mm)	针芯类型		测试电压 (kV rms) ^{1) 2)}	测试电压 (kV dc) ^{1) 2)}	额定电流 (A) ¹⁾
						焊接针芯	压接针芯			
2G			318	18	0.7	●	●	0.85	1.2	5.5

注：¹⁾ 见第 178 页计算方法、注意事项和推荐标准。
²⁾ 针芯到针芯与针芯到外壳的测试电压最小值。

外壳 (2G 系列)

编号	外壳和尾盖		锁定套筒		其它金属构件		注
	材料	表面处理	材料	表面处理	材料	表面处理	
C	黄铜	铬	黄铜/青铜	镍	黄铜	镍	●
N	黄铜	镍	黄铜/青铜	镍	黄铜	镍	○
K	黄铜	黑铬	黄铜/青铜	镍	黄铜	镍	●

● 常规型号，首先考虑选择
○ 特殊型号，有特殊需求时选择

注：材料的详细性能和处理方法见第 171 页的介绍。



针芯 (2G 系列)

编号	针芯类型
A	焊接型公针芯
L	焊接型母针芯
N	压接型母针芯

勝特力材料 886-3-5753170
 勝特力电子(上海) 86-21-34970699
 勝特力电子(深圳) 86-755-83298787
[Http://www.100y.com.tw](http://www.100y.com.tw)



线夹 (2G 系列)

适用于2G系列的D型线夹

D 型



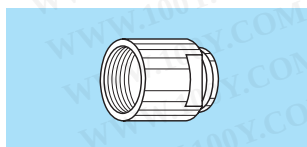
2G	编号		线夹 Ø		电缆 Ø	
	类型	编码	Ø A	Ø B	最大值	最小值
	D	52	5.2	-	5.1	4.5
	D	62	6.2	-	6.1	5.5
	D	72	7.2	6.2	7.1	6.5
	D	80	8.0	6.2	7.9	7.5

注：所有尺寸单位为毫米

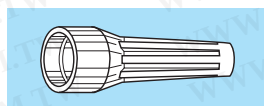


变量参数 (2G 系列)

适用于2G系列的护套和适配线夹



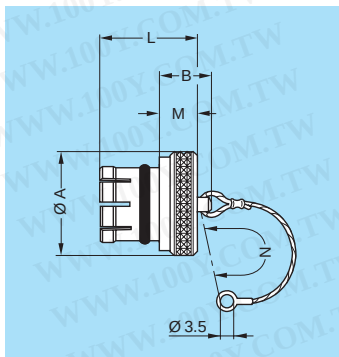
需另外订购



2G	编号	尾盖		需另外订购 (见第 141 和 142 页)
		类型	编码	
	Z	D	52 到 80	GMA.2B.●●●.●●

附件 (2G 系列)

勝特力材料 886-3-5753170
 勝特力电子(上海) 86-21-34970699
 勝特力电子(深圳) 86-755-83298787
[Http://www.100y.com.tw](http://www.100y.com.tw)



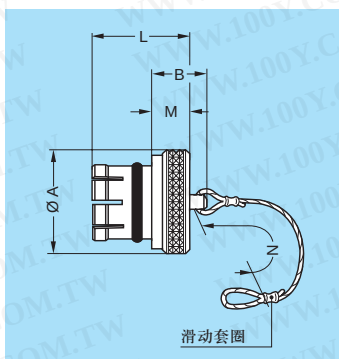
BRE 遮蔽盖, 适用于固定式和浮动式插座

产品编号	尺寸 (mm)				
	A	B	L	M	N
BRE.2G.200.NAS	18	12	10.6	6.0	85

注：此类盖适用于任何一种定位销配置。型号的最后一个字母“S”表示 O 形圈材料（为硅橡胶）。O 形圈也可由 FPM 材料制成，需要的话，用字母“V”代替“S”即可。

- 壳体材料：黄铜镀镍（镀层厚度 3 μm）
- 挂绳材料：不锈钢
- O 形圈材料：硅橡胶或 FPM

- 最高工作温度：200°C
- 防水等级：IP61 (IEC 60529 标准)



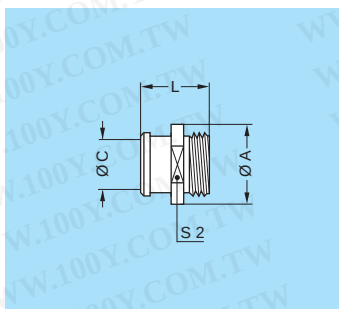
BRF 遮蔽盖, 适用于固定式插座

产品编号	尺寸 (mm)				
	A	B	L	M	N
BRF.2G.200.NAS	18	12	14.0	6.0	85

注：此类盖适用于任何一种定位销配置。型号的最后一个字母“S”表示 O 形圈材料（为硅橡胶）。O 形圈也可由 FPM 材料制成，需要的话，用字母“V”代替“S”即可。

- 壳体材料：黄铜镀镍（镀层厚度 3 μm）
- 挂绳材料：不锈钢
- O 形圈材料：硅橡胶或 FPM

- 最高工作温度：200°C
- 防水等级：IP61 (IEC 60529 标准)



FFM 带护套型尾盖

产品编号	尺寸 (mm)			
	A	C	L	S2
FFM.2C.130.LC	14	8	12.2	12

注：适配此尾盖的护套见第 141 页《附件》章节。

- 材料：黄铜镀铬（镀层厚度 3 μm）

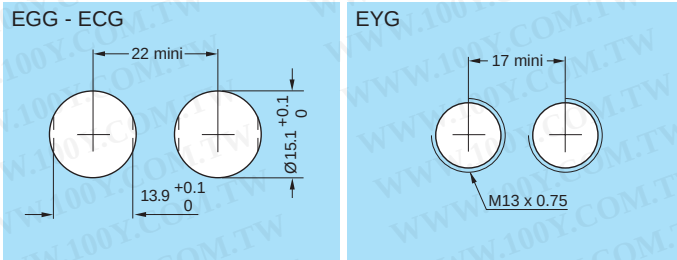
注：其它附件见第 135 页《附件》章节。

工具 (2G 系列)

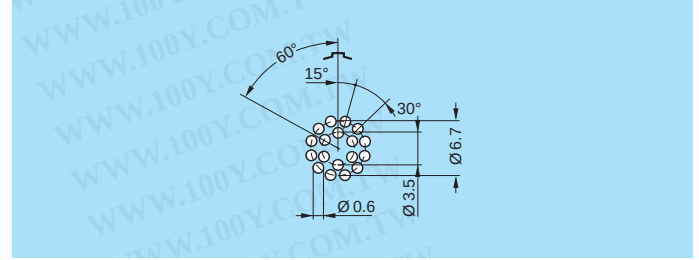
请参看《工具》章节 (第 146 页)。

面板开口尺寸 (2G 系列)

面板开口尺寸



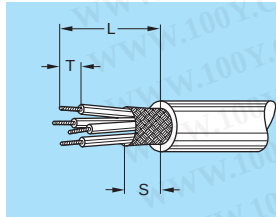
PCB 钻孔参数



注：螺母安装扭矩：6 Nm (1N = 0.102 kg)

电缆组件 (2G 系列)

电缆剥线长度 (2G 系列)



连接器		针芯 ØA (mm)	电缆剥线长度 (mm)		
系列	类型		L	S	T
2G	318	0.7	9	7	3

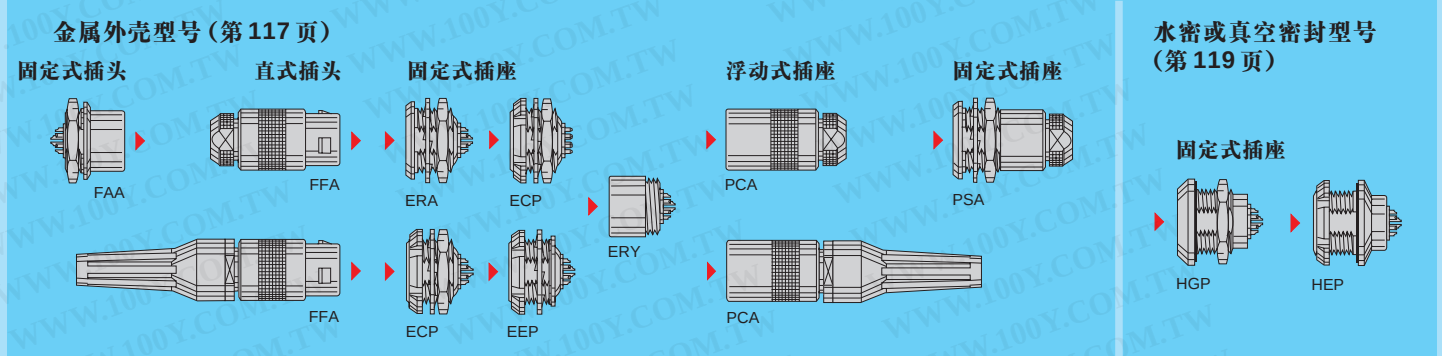
注：尺寸公差为 L: ± 0.5 mm; S: ± 0.5 mm; T: ± 0.2 mm。

2C 系列

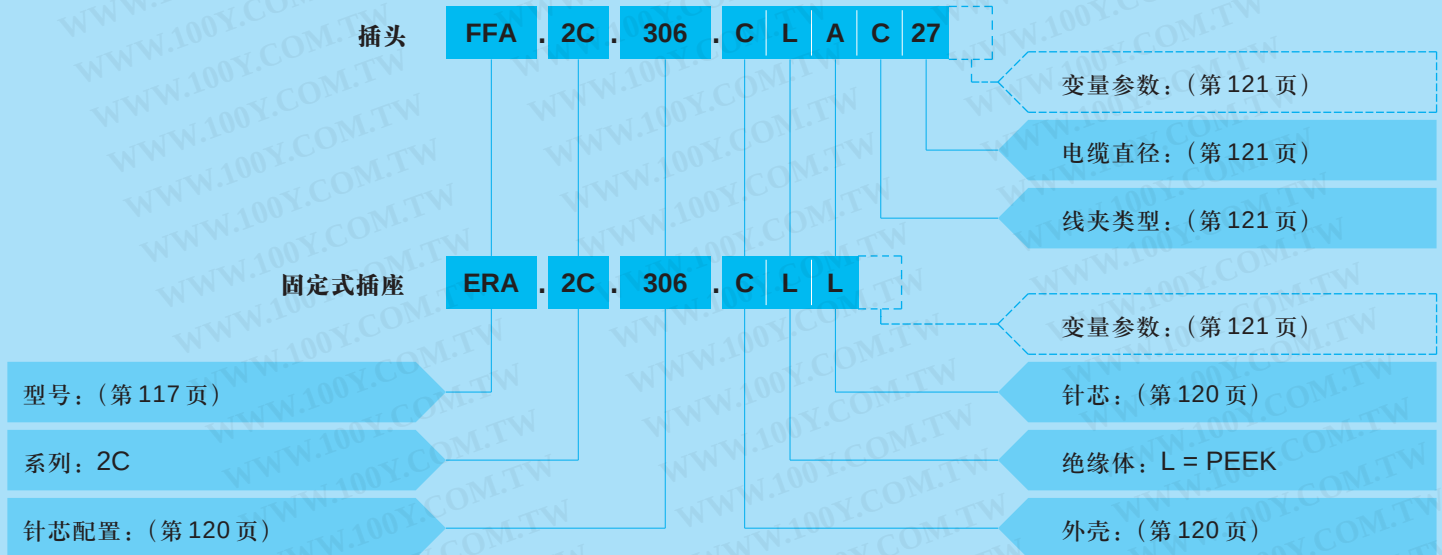
勝特力材料 886-3-5753170
 勝特力电子(上海) 86-21-34970699
 勝特力电子(深圳) 86-755-83298787
[Http://www.100y.com.tw](http://www.100y.com.tw)

许多应用环境要求多芯连接器外形尺寸短、针芯密度高。雷莫 (LEMO) 短型系列 (长度小于 30 mm) 完全满足此种需求。

2C 系列多芯连接器的特点是采用雌雄同体的阶梯状 (半月) 插芯, 最高可达 14 芯。



产品编号规则



产品编号举例

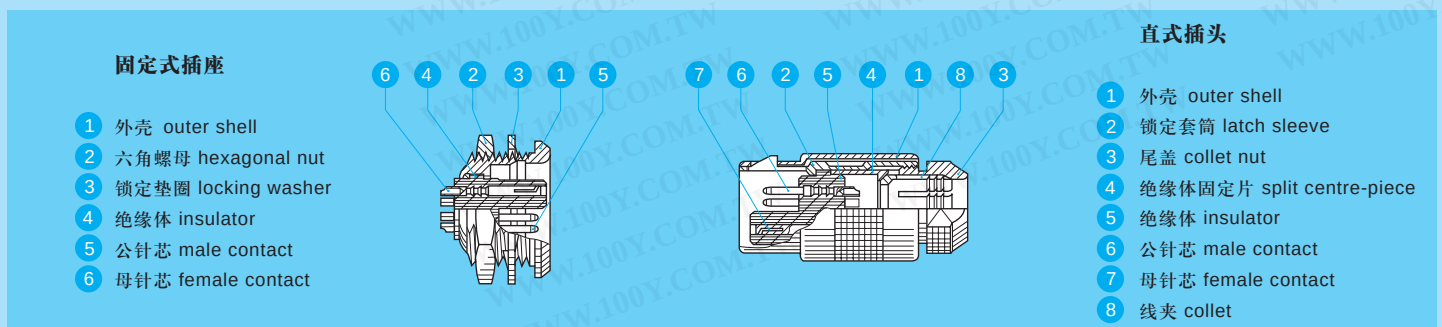
带线夹的直式插头:

FFA.2C.306.CLAC27 = 直式插头, 带线夹, 2C 系列, 多芯类型, 6 芯, 黄铜镀铬外壳, PEEK 绝缘体, 焊接型公针芯, 适用于外径 2.7mm 电缆的 C 型线夹

固定式插座:

ERA.2C.306.CLL = 固定式插座, 螺母固定, 2C 系列, 多芯类型, 6 芯, 黄铜镀铬外壳, PEEK 绝缘体, 焊接型母针芯

产品剖面图



金属外壳型号

技术特性

机械性能和环境因素

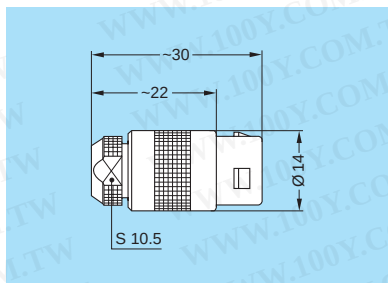
特性	参数	标准
插拔次数	> 500 次	IEC60512-5 试验 9a
湿度	在 60°C 时最高达 95%	
温度范围	-55°C, +250°C	
盐雾腐蚀试验	> 144 h	IEC60512-6 试验 11f
防护等级	IP 50	IEC60529
环境实验	55/175/21	IEC60068-1

勝特力材料 886-3-5753170
勝特力电子(上海) 86-21-34970699
勝特力电子(深圳) 86-755-83298787
[Http://www.100y.com.tw](http://www.100y.com.tw)

注:

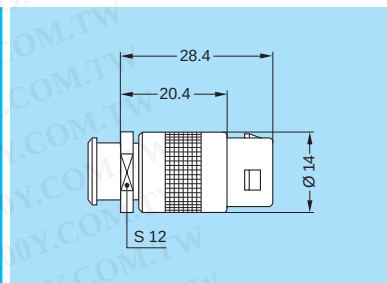
以上数据是对外壳采用黄铜镀铬, 绝缘体采用 PEEK 材料的 FFA 插头和 ERA 插座进行的各项试验得出。
详细的电气性能、材料和表面处理方法在第 171 页的《技术特性》章节中进行了介绍。

FFA.2C 直式插头, 电缆线夹



电缆组装见第 122 页

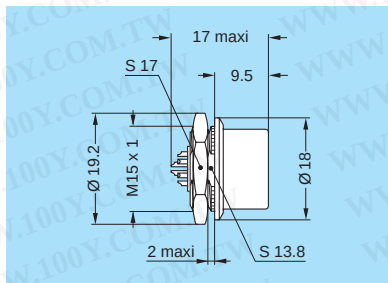
FFA.2C 直式插头, 电缆线夹和带护套型的尾盖¹⁾



电缆组装见第 122 页

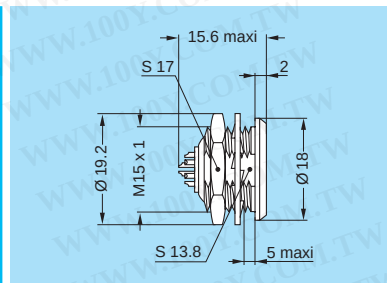
注: ¹⁾ 订购时, 在编号最后加一字母“Z”。
护套需另外订购(见第 141 页)。

FAA.2C 固定式插头, 螺母固定, 不带锁定装置



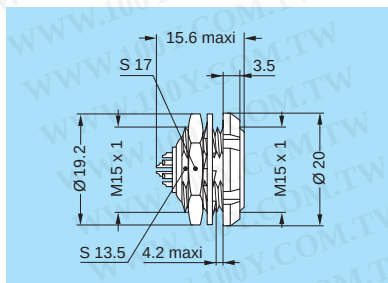
面板开口尺寸见第 122 页

ERA.2C 固定式插座, 螺母固定



面板开口尺寸见第 122 页

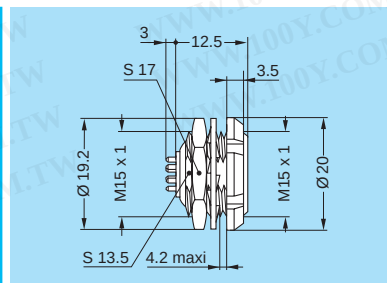
ECP.2C 固定式插座, 带两个螺母(后面板安装)



面板开口尺寸见第 122 页

注: 所有尺寸单位为毫米 mm。

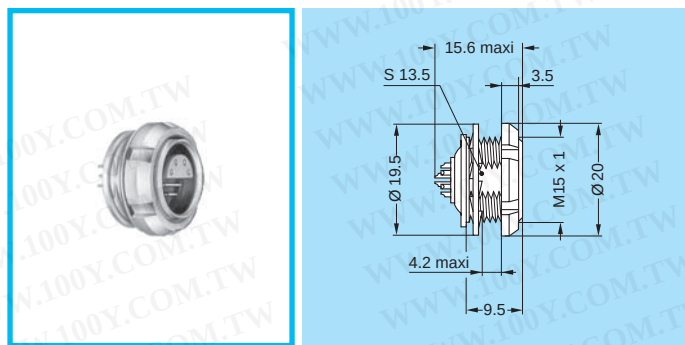
ECP.2C 固定式插座, 带两个螺母, 适用于印制线路板的直针芯(后面板安装)



面板开口尺寸见第 122 页

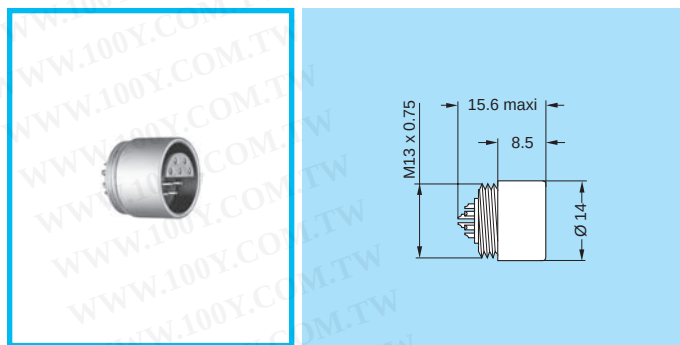
PCB 板钻孔参数见第 122 页

EEP.2C 固定式插座，螺母固定 (后面板安装)



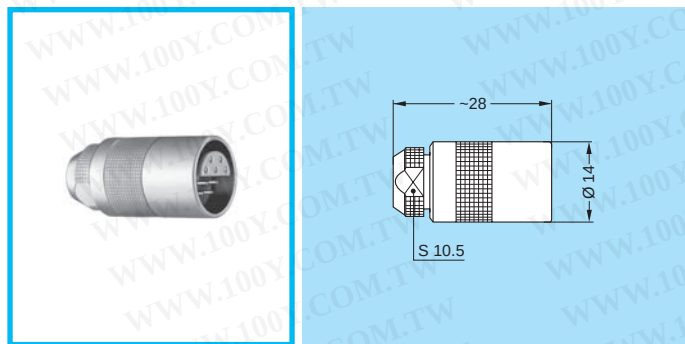
面板开口尺寸见第 122 页

ERY.2C 固定式插座，凸出式外壳 (面板螺纹固定)



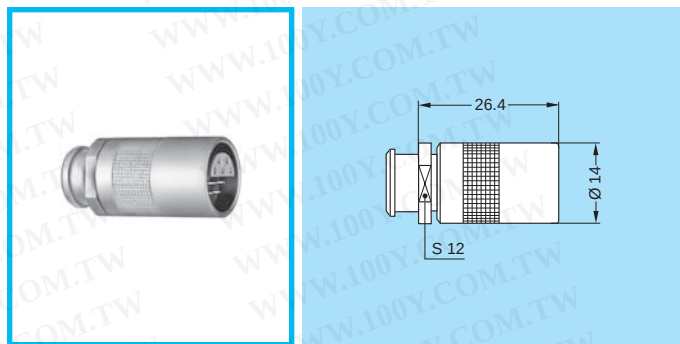
面板开口尺寸见第 122 页

PCA.2C 浮动式插座，电缆线夹



电缆组装见第 122 页

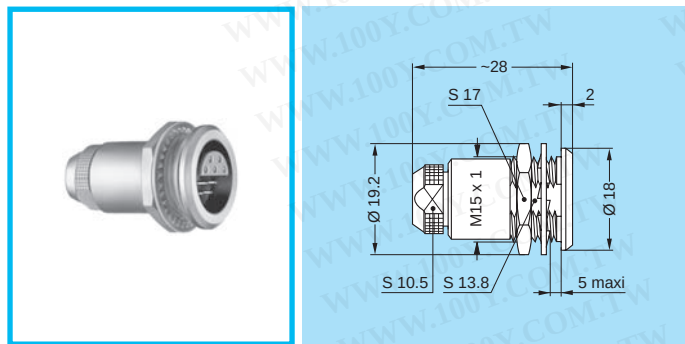
PCA.2C 浮动式插座，电缆线夹和带护套型的尾盖¹⁾



电缆组装见第 122 页

注：¹⁾ 订购时，在编号最后加一字母“Z”。
 护套需另外订购 (见第 141 页)。

PSA.2C 固定式插座，螺母固定，电缆线夹



面板开口尺寸见第 122 页

注：所有尺寸单位为毫米 mm。

水密或真空密封型号

此类插座可使设备达到 IP68 保护等级 (按 IEC60529 标准)。他们与同系列的插头完全兼容, 因而被广泛应用于手提无线设备、军工、实验设备和航空领域等。

此类型号是在产品编号最后加一个字母“P”以示区别。

此类型号还提供真空密封型。若是真空密封型号, 需在字母“P”后再多加一个字母“V”。(需要的话, 可提供检验报告)

此类型号的密封材料为环氧树脂。

技术特性

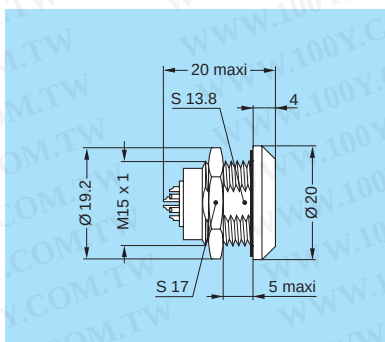
机械性能和环境因素

特性	参数	标准
插拔次数	> 500 次	IEC60512-5 试验 9a
湿度	在 60°C 时最高达 95%	
温度范围	-20°C, +80°C	
盐雾腐蚀试验	> 144h	IEC60512-6 试验 11f

特性	参数	标准
环境实验	20/80/21	IEC60068-1
泄漏率 (He) ¹⁾	< 10 ⁻⁷ mbar.l.s ⁻¹	IEC60512-7 试验 14b
最大工作压强	5 bars	IEC60512-7 试验 14d

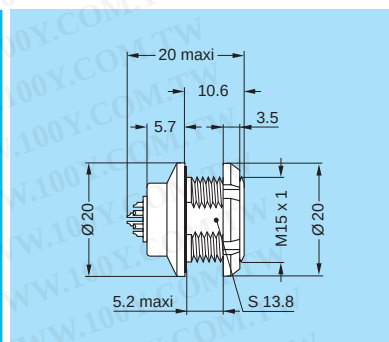
注: ¹⁾ 仅适用于真空密封型

HGP.2C 固定式插座, 螺母固定, 水密或真空密封



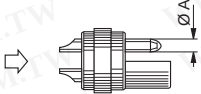
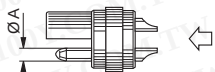
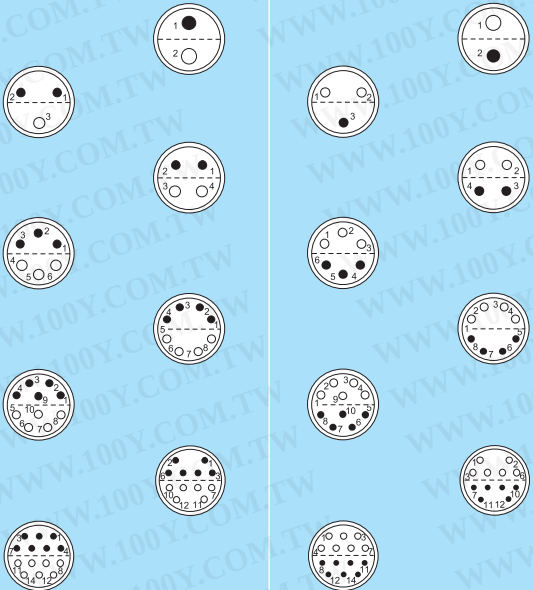
面板开口尺寸见第 122 页

HEP.2C 固定式插座, 螺母固定, 水密或真空密封 (后面板安装)



面板开口尺寸见第 122 页

针芯配置 (2C 系列)

2C					类型	针芯数量	ØA (mm)	针芯类型		测试电压 (kV rms) ^{1) 2)}	测试电压 (kV dc) ^{1) 2)}	额定电流 (A) ¹⁾
	焊接型公针芯		焊接型母针芯					焊接针芯	压接针芯			
	302	2	1.6		-	1.80	2.40	20				
	303	3	1.3		-	1.50	2.10	15				
	304	4	1.3		-	1.80	2.40	15				
	306	6	1.3		-	1.50	2.10	12				
	308	8	0.7			0.95	1.35	7				
	310	10	0.7			0.95	1.35	7				
	312	12	0.7			0.60	0.90	5				
	314	14	0.7			0.60	0.90	5				

注：1) 见第178页计算方法、注意事项和推荐标准。
2) 针芯到针芯与针芯到外壳的测试电压最小值。

外壳 (2C 系列)

编号	外壳和尾盖		锁定套筒		其它金属构件		注
	材料	表面处理	材料	表面处理	材料	表面处理	
C	黄铜	铬	黄铜/青铜	镍	黄铜	镍	●
N	黄铜	镍	黄铜/青铜	镍	黄铜	镍	○
K	黄铜	黑铬	黄铜/青铜	镍	黄铜	镍	●

● 常规型号，首先考虑选择
○ 特殊型号，有特殊需求时选择

注：材料的详细性能和处理方法见第171页的介绍。

针芯 (2C 系列)

编号	针芯类型
A	焊接型公针芯
L	焊接型母针芯
N	压接型母针芯

此多芯连接器适配的是雌雄同体的阶梯状针芯，同时配有公针芯和母针芯。不过，产品编号中代表针芯类型的字母，按照惯例，对插头通常用公针芯 (编号 A) 表示，对插座通常用母针芯 (编号 L) 表示。

线夹 (2C 系列)

适用于2C系列的C型和L型线夹

C 型



编号		线夹Ø		电缆Ø	
类型	编码	Ø A	Ø B	最大值	最小值
C	27	2.7	-	2.6	2.2
C	32	3.2	-	3.1	2.7
C	37	3.7	-	3.6	3.2
C	42	4.2	-	4.1	3.7
C	47	4.7	-	4.6	4.2
C	52	5.2	-	5.1	4.7
C	57	5.7	-	5.6	5.2
C	62	6.2	-	6.1	5.7
C	67	6.7	6.2	6.6	6.2
C	72	7.2	6.2	7.1	6.7
C	75	7.5	6.2	7.4	7.2
C	80	8.0	6.2	7.9	7.5

L 型

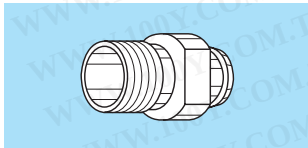


编号		线夹 Ø		电缆 Ø		
类型	编码	Ø A	Ø B	最大值	最小值	
2C	L	14	1.4	-	1.3	0.8
	L	27	2.7	-	2.6	2.2
	L	32	3.2	-	3.1	2.7
	L	37	3.7	-	3.6	3.2
	L	42	4.2	-	4.1	3.7
	L	47	4.7	-	4.6	4.2
	L	52	5.2	-	5.1	4.7
	L	57	5.7	-	5.6	5.2
	L	62	6.2	-	6.1	5.7
	L	67	6.7	-	6.6	6.2
	L	72	7.2	-	7.1	6.7
	L	77	7.7	-	7.6	7.2
L	82	8.2	-	8.1	7.7	

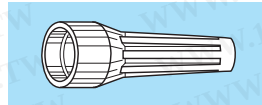
注：所有尺寸单位为毫米

变量参数 (2C 系列)

适用于2C系列的护套和适配线夹



需另外订购



编号	尾盖		需另外订购 (见第141和142页)
	类型	编码	
2C	Z	C	42 到 80
		L	42 到 82
			GMA.2B.0●●.D●
			GMA.2B.0●●.D●

水密和真空密封型号插座 (2C 系列)

型号	编号	
	水密	真空密封
2C	HEP	P
	HGP	PV

附件 (2C 系列)

勝特力材料 886-3-5753170
 勝特力电子(上海) 86-21-34970699
 勝特力电子(深圳) 86-755-83298787
[Http://www.100y.com.tw](http://www.100y.com.tw)

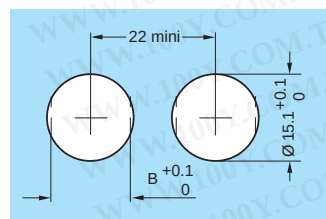
2C 系列的附件和 2G 系列的相同，请参看相关页 (第 114 页)。

工具 (2C 系列)

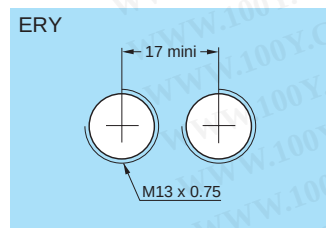
请参看《工具》章节 (第 146 页)。

面板开口尺寸 (2C 系列)

面板开口尺寸

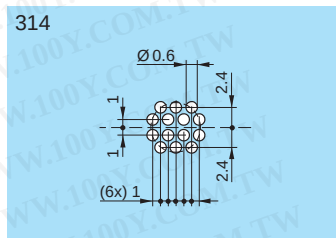
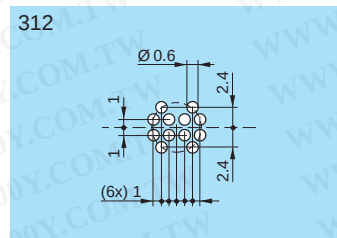
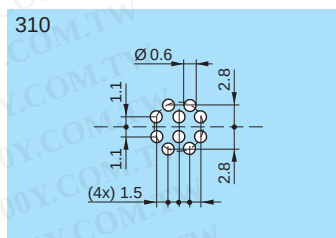
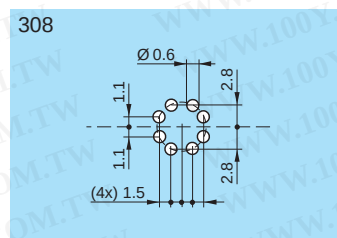


型号	B (mm)	型号	B (mm)
ECP	13.6	HGP	13.9
EEP	13.6	PSA	13.9
ERA	13.9		
FAA	13.9		
HEP	13.9		



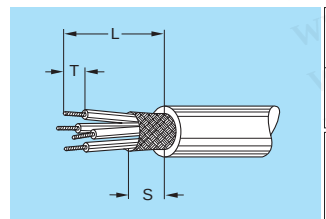
注：
 螺母安装扭矩：
 6 Nm (1N = 0.102 kg)

PCB 钻孔参数



电缆组件 (2C 系列)

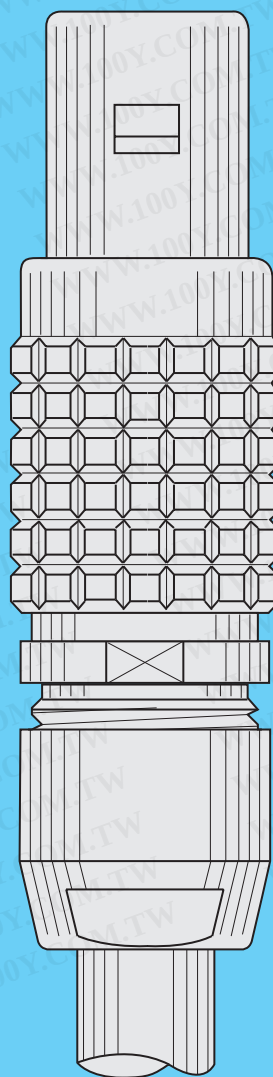
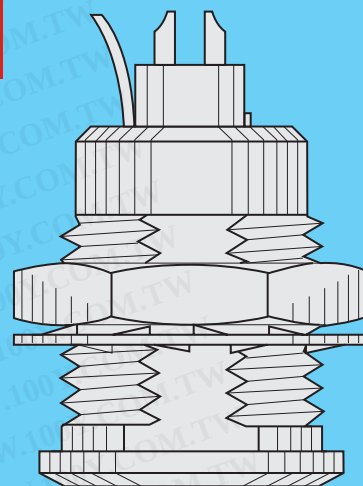
电缆剥线长度 (2C 系列)



连接器		针芯 ØA (mm)	电缆剥线长度 (mm)		
系列	类型		L	S	T
2C	302	1.6	11	8	3
	303/304/306	1.3	11	8	3
	308/310/312/314	0.7	11	8	3

注：尺寸公差为 L: ± 0.5 mm; S: ± 0.5 mm; T: ± 0.2 mm。

勝特力材料 886-3-5753170
勝特力电子(上海) 86-21-34970699
勝特力电子(深圳) 86-755-83298787
[Http://www.100y.com.tw](http://www.100y.com.tw)



1D 系列 (四同轴)

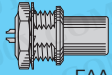
1D 系列

勝特力材料 886-3-5753170
 勝特力电子(上海) 86-21-34970699
 勝特力电子(深圳) 86-755-83298787
[Http://www.100y.com.tw](http://www.100y.com.tw)

1D 系列四同轴连接器有四个同中心轴的针芯，特别为广播和电视领域的应用而开发。这种独特的设计在保证插拔自锁系统安全连接的同时，实现了真正意义上的盲插操作。

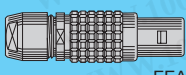
金属外壳型号 (第 125 页)

固定式插头



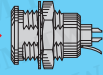
FAA

直式插头



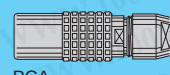
FFA

固定式插座



ERN

浮动式插座

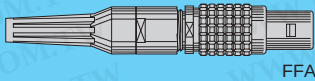


PCA

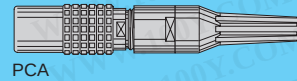
桥式插头



CFF, CRF



FFA



PCA

产品编号规则

插头

FFA . 1D . 694 . C N L D 42

变量参数: (第 128 页)

电缆直径: (第 127 页)

线夹类型: (第 127 页)

固定式插座

ERN . 1D . 694 . C N A

变量参数: (第 128 页)

针芯: (第 127 页)

绝缘体: N = PA6.6

外壳: (第 127 页)

型号: (第 125 页)

系列: 1D

针芯配置: (第 127 页)
694 = 四同轴

产品编号举例

带线夹的直式插头:

FFA.1D.694.CNLD42 = 直式插头, 带线夹, 1D 系列, 四同轴类型, 黄铜镀铬外壳, PA6.6 绝缘体, 焊接型母针芯, 适用于外径 4.2mm 电缆的 D 型线夹

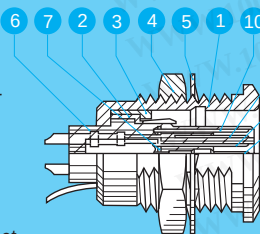
固定式插座:

ERN.1D.694.CNA = 固定式插座, 螺母固定, 1D 系列, 四同轴类型, 黄铜镀铬外壳, PA6.6 绝缘体, 焊接型公针芯

产品剖面图

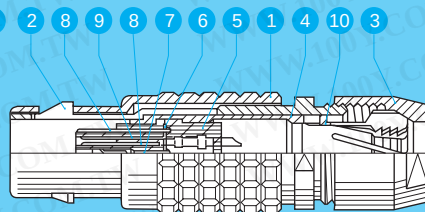
固定式插座

- 1 外壳 outer shell
- 2 接地环 earthing crown
- 3 固定环 retaining ring
- 4 六角螺母 hexagonal nut
- 5 锁定垫圈 locking washer
- 6 绝缘体 insulator
- 7 印制电路 printed circuit
- 8 公针芯 male contact
- 9 环形公针芯 male intermediate contact
- 10 环形母针芯 female intermediate contact



直式插头

- 1 外壳 outer shell
- 2 锁定套筒 latch sleeve
- 3 尾盖 collet nut
- 4 绝缘体固定片 split centre-piece
- 5 绝缘体 insulator
- 6 印制电路 printed circuit
- 7 母针芯 female contact
- 8 环形公针芯 male intermediate contact
- 9 环形母针芯 female intermediate contact
- 10 线夹 collet



金属外壳型号

胜特力材料 886-3-5753170
 胜特力电子(上海) 86-21-34970699
 胜特力电子(深圳) 86-755-83298787
[Http://www.100y.com.tw](http://www.100y.com.tw)

技术特性

机械性能和环境因素

特性	参数	标准
插拔次数	> 1000 次	IEC60512-5 试验 9a
温度范围 ¹⁾	-40°C, +120°C	
盐雾腐蚀试验	> 144 h	IEC60512-6 试验 11f
防护等级	IP 50	IEC60529

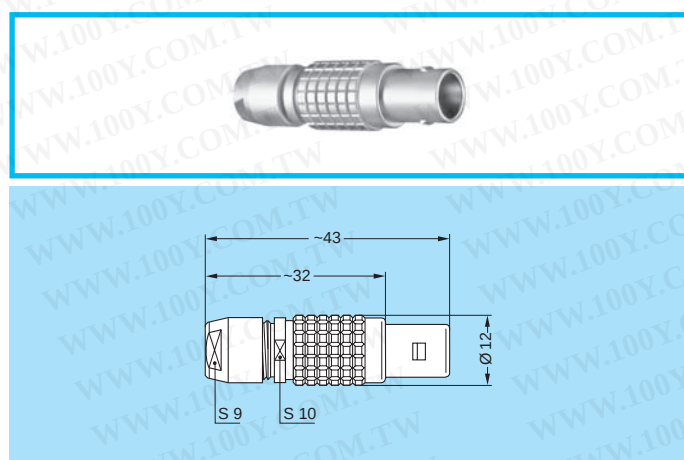
注:

¹⁾ 对桥式插头: -40°C, +80°C

详细的电气性能、材料和表面处理方法在第 171 页的《技术特性》章节中进行了介绍。

电气性能

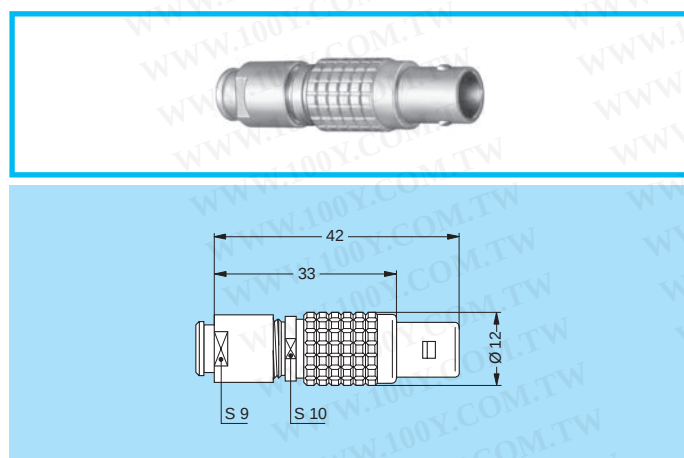
特性	参数	标准
绝缘电阻	> 10 ¹¹ Ω	IEC60512-2 试验 3a
绝缘电阻 (RH95%, 48 小时)	> 10 ¹⁰ Ω	IEC60512-2 试验 3a
屏蔽效果	at 10 MHz	> 70 dB IEC60169-1-3
	at 1 GHz	> 35 dB IEC60169-1-3
接触电阻	< 20 mΩ	IEC60512-2 试验 2a



FFA 直式插头, 电缆线夹

编号
FFA.1D.694.CNLD42
FFA.1D.694.CNLD52
FFA.1D.694.CNLD62
FFA.1D.694.CNLD72
FFA.1D.694.CNLD76

电缆组装见第 128 页

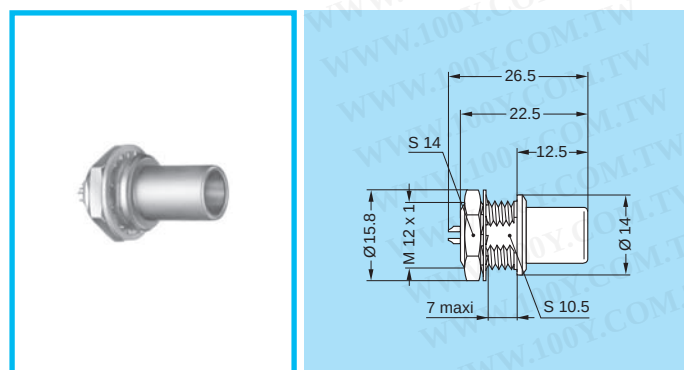


FFA 直式插头, 电缆线夹和带护套型的尾盖

编号
FFA.1D.694.CNLD42Z
FFA.1D.694.CNLD52Z
FFA.1D.694.CNLD62Z
FFA.1D.694.CNLD72Z

电缆组装见第 128 页

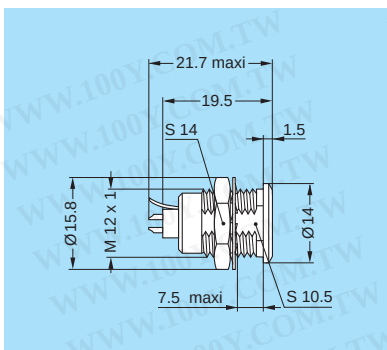
注: 护套需另外订购 (见第 141 页)。



FAA 固定式插头, 螺母固定, 不带锁定装置

编号
FAA.1D.694.CNL

面板开口尺寸见第 128 页



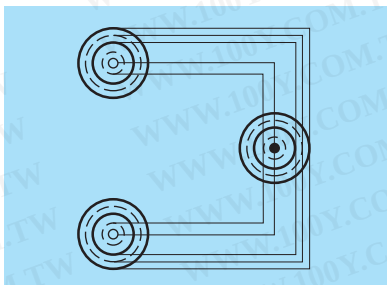
ERN 固定式插座带接地脚，螺母固定

编号

ERN.1D.694.CNA

面板开口尺寸见第 128 页

勝特力材料 886-3-5753170
勝特力电子(上海) 86-21-34970699
勝特力电子(深圳) 86-755-83298787
[Http://www.100y.com.tw](http://www.100y.com.tw)



CFF 桥式插头，带两个没有锁定装置的插头

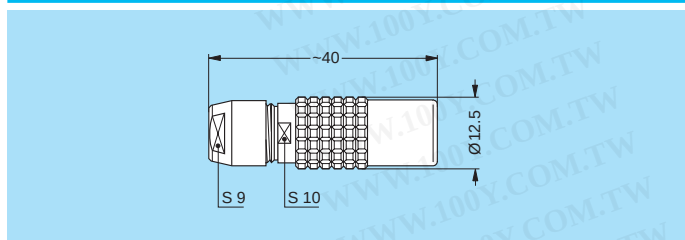
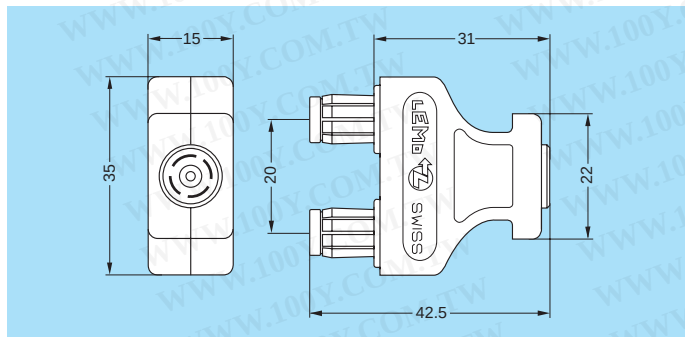
CRF 桥式插头，带两个没有锁定装置的插头，带监控输出

编号

CFF.1D.694.PNMG

CRF.1D.694.PNFG

注：产品型号的最后一个字母 (G) 表示外壳颜色为灰色，若需其它颜色，用相应颜色的字母代替 (G) 即可。



PCA 浮动式插座，电缆线夹

编号

PCA.1D.694.CNAD42

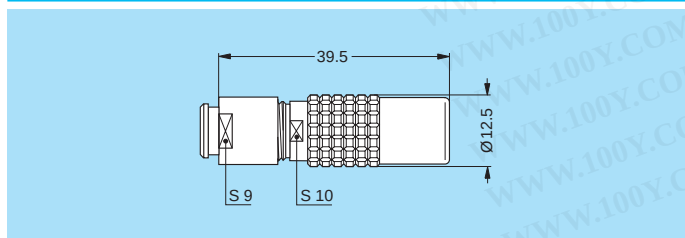
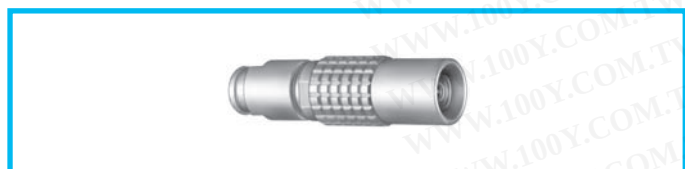
PCA.1D.694.CNAD52

PCA.1D.694.CNAD62

PCA.1D.694.CNAD72

PCA.1D.694.CNAD76

电缆组装见第 128 页



PCA 浮动式插座，电缆线夹和带护套型的尾盖

编号

PCA.1D.694.CNAD42Z

PCA.1D.694.CNAD52Z

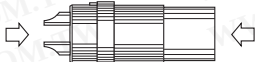
PCA.1D.694.CNAD62Z

PCA.1D.694.CNAD72Z

电缆组装见第 128 页

注：护套需另外订购 (见第 141 页)。

针芯配置 (1D 系列)

				类型
焊接型公针芯		焊接型母针芯		
 		 		694
针芯数量	针芯类型	测试电压 (kV rms) ^{1) 2)}	测试电压 (kV dc) ^{1) 2)}	额定电流 (A) ¹⁾
4		0.42	0.6	0.5

注：1) 见第178页计算方法、注意事项和推荐标准。
2) 针芯到针芯与针芯到外壳的测试电压最小值。

勝特力材料 886-3-5753170
勝特力电子(上海) 86-21-34970699
勝特力电子(深圳) 86-755-83298787
[Http://www.100y.com.tw](http://www.100y.com.tw)

外壳 (1D 系列)

编号	外壳和尾盖		锁定套筒 + 接地环		其它金属构件		备注	注
	材料	表面处理	材料	表面处理	材料	表面处理		
C	黄铜	铬	黄铜 / 青铜	镍	黄铜	镍	仅适用于 CFF 和 CRF 桥式插头 ¹⁾	●
P	PA.6	-	黄铜 / 青铜	镍	黄铜	镍		●

注：材料的详细性能和处理方法见第171页的介绍。1) 颜色见《变量参数》。

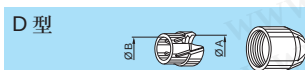
- 常规型号，首先考虑选择
- 特殊型号，有特殊需求时选择

针芯 (1D 系列)

编号	针芯类型	备注
A	焊接公针型中心针芯	用于插座
L	焊接母针型中心针芯	用于插头

线夹 (1D 系列)

适用于1D系列的D型线夹



编号	线夹 Ø		电缆 Ø		注
	类型	编码	Ø A	Ø B	
1D	D	42	4.2	-	4.0 3.1
	D	52	5.2	-	5.0 4.1
	D	62	6.2	-	6.0 5.1

适用于1D系列的D型线夹

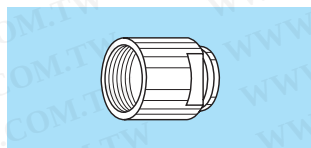


编号	线夹 Ø		电缆 Ø		注
	类型	编码	Ø A	Ø B	
1D	D	72	7.2	6.7	7.0 6.1
	D	76	7.6	6.7	7.5 7.1 ¹⁾

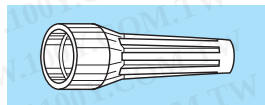
注：1) 此类线夹不能用在尾盖是带护套型的连接器型号上。所有尺寸单位为毫米。

变量参数 (1D 系列)

适用于1D系列的护套和适配线夹



需另外订购



编号	尾盖	
	类型	编码
1D	Z	D
		42 到 72

需另外订购 (见第141和142页)
GMA.1B.●●●●●

桥式插头外壳的颜色

编号	颜色
A	蓝色
B	白色
G	灰色
J	黄色
M	棕色
N	黑色
R	红色
V	绿色

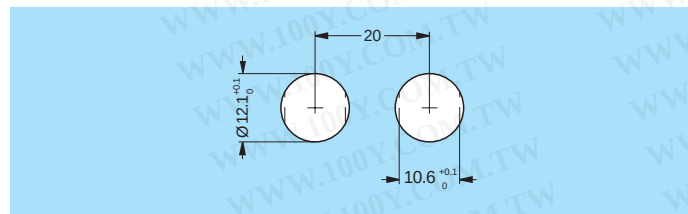
附件和工具 (1D 系列)

1D 系列的附件和工具与 1B 系列的相同，请参看相关页 (第 135 和 146 页)。

勝特力材料 886-3-5753170
勝特力电子(上海) 86-21-34970699
勝特力电子(深圳) 86-755-83298787
[Http://www.100y.com.tw](http://www.100y.com.tw)

面板开口尺寸 (1D 系列)

面板开口尺寸



注：螺母安装扭矩：4.5 Nm (1N = 0.102 kg)
 若加装双面板垫圈或绝缘垫圈，螺母安装扭矩则为 4 Nm。

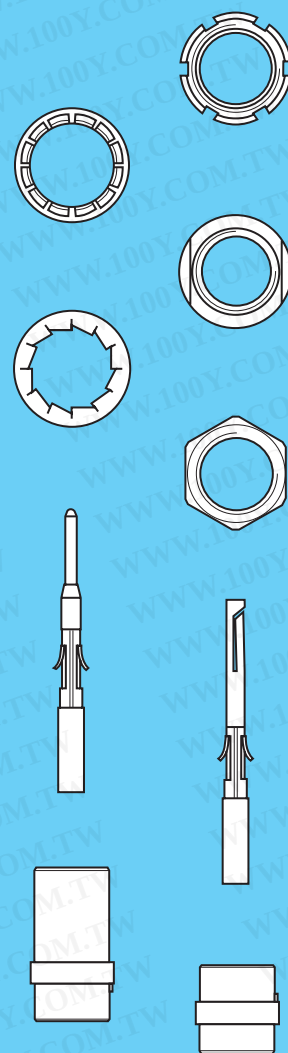
电缆组件 (1D 系列)

电缆剥线长度 (1D 系列)

连接器		针芯直径 (mm)	电缆剥线长度 (mm)		
系列	类型		L	S	T
1D	694	-	14	8	3

注：尺寸公差为 L: ± 0.5 mm; S: ± 0.5 mm; T: ± 0.2 mm。

勝特力材料 886-3-5753170
勝特力电子(上海) 86-21-34970699
勝特力电子(深圳) 86-755-83298787
[Http://www.100y.com.tw](http://www.100y.com.tw)



配件

配件



公针绝缘体



母针绝缘体

FGG-EGG 适配压接型针芯的绝缘体

勝特力材料 886-3-5753170
勝特力电子(上海) 86-21-34970699
勝特力电子(深圳) 86-755-83298787
[Http://www.100y.com.tw](http://www.100y.com.tw)

类型	绝缘体编号	
	公针绝缘体	母针绝缘体
00	302	FGG.00.302.YL EGG.00.402.YL
	303	FGG.00.303.YL EGG.00.403.YL
	304	FGG.00.304.YL EGG.00.404.YL
0B 0K	302	FGG.0B.302.YL EGG.0B.402.YL
	303	FGG.0B.303.YL EGG.0B.403.YL
	304	FGG.0B.304.YL EGG.0B.404.YL
	305	FGG.0B.305.YL EGG.0B.405.YL
	306	FGG.0B.306.YL -
	307	FGG.0B.307.YL -
	309	FGG.0B.309.YL -
1B 1K	302	FGG.1B.302.YL EGG.1B.402.YL
	303	FGG.1B.303.YL EGG.1B.403.YL
	304	FGG.1B.304.YL EGG.1B.404.YL
	305	FGG.1B.305.YL EGG.1B.405.YL
	306	FGG.1B.306.YL EGG.1B.406.YL
	307	FGG.1B.307.YL EGG.1B.407.YL
	308	FGG.1B.308.YL EGG.1B.408.YL
	310	FGG.1B.310.YL -
2B 2K	314	FGG.1B.314.YL -
	316	FGG.1B.316.YL -
	302	FGG.2B.302.YL EGG.2B.402.YL
	303	FGG.2B.303.YL EGG.2B.403.YL
	304	FGG.2B.304.YL EGG.2B.404.YL
	305	FGG.2B.305.YL EGG.2B.405.YL
	306	FGG.2B.306.YL EGG.2B.406.YL
	307	FGG.2B.307.YL EGG.2B.407.YL
	308	FGG.2B.308.YL EGG.2B.408.YL
	310	FGG.2B.310.YL EGG.2B.410.YL
3B 3K	312	FGG.2B.312.YL EGG.2B.412.YL
	314	FGG.2B.314.YL EGG.2B.414.YL
	316	FGG.2B.316.YL EGG.2B.416.YL
	318	FGG.2B.318.YL EGG.2B.418.YL
	319	FGG.2B.319.YL EGG.2B.419.YL
	302	FGG.3B.302.YL EGG.3B.402.YL
	303	FGG.3B.303.YL EGG.3B.403.YL
	304	FGG.3B.304.YL EGG.3B.404.YL
	305	FGG.3B.305.YL EGG.3B.405.YL
	306	FGG.3B.306.YL EGG.3B.406.YL
	307	FGG.3B.307.YL EGG.3B.407.YL

类型	绝缘体编号	
	公针绝缘体	母针绝缘体
3B 3K	308	FGG.3B.308.YL EGG.3B.408.YL
	309	FGG.3B.309.ML EGG.3B.409.ML
	310	FGG.3B.310.YL EGG.3B.410.YL
	312	FGG.3B.312.YL EGG.3B.412.YL
	314	FGG.3B.314.YL EGG.3B.414.YL
	316	FGG.3B.316.YL EGG.3B.416.YL
	318	FGG.3B.318.YL EGG.3B.418.YL
	320	FGG.3B.320.YL EGG.3B.420.YL
	322	FGG.3B.322.YL EGG.3B.422.YL
	324	FGG.3B.324.YL EGG.3B.424.YL
	326	FGG.3B.326.YL EGG.3B.426.YL
	330	FGG.3B.330.YL EGG.3B.430.YL
4B 4K	304	FGG.4B.304.YL EGG.4B.404.YL
	306	FGG.4B.306.YL EGG.4B.406.YL
	307	FGG.4B.307.YL EGG.4B.407.YL
	310	FGG.4B.310.YL EGG.4B.410.YL
	312	FGG.4B.312.YL EGG.4B.412.YL
	316	FGG.4B.316.YL EGG.4B.416.YL
	320	FGG.4B.320.YL EGG.4B.420.YL
	324	FGG.4B.324.YL EGG.4B.424.YL
	330	FGG.4B.330.YL EGG.4B.430.YL
	340	FGG.4B.340.YL EGG.4B.440.YL
5B 5K	348	FGG.4B.348.YL EGG.4B.448.YL
	304	FGG.5B.304.ML EGG.5B.404.ML
	310	FGG.5B.310.YL EGG.5B.410.YL
	314	FGG.5B.314.YL EGG.5B.414.YL
	316	FGG.5B.316.YL EGG.5B.416.YL
	320	FGG.5B.320.YL EGG.5B.420.YL
	330	FGG.5B.330.YL EGG.5B.430.YL
	340	FGG.5B.340.YL EGG.5B.440.YL
	348	FGG.5B.348.YL EGG.5B.448.YL
	350	FGG.5B.350.ML EGG.5B.450.ML
	354	FGG.5B.354.YL EGG.5B.454.YL
	364	FGG.5B.364.YL EGG.5B.464.YL

注：每个绝缘体都既能配常规压接型针芯（第131页，图1），也能配带缩小型焊接杯的压接型针芯（第131页，图2）。

FGG-EGG 压接针芯

图 1

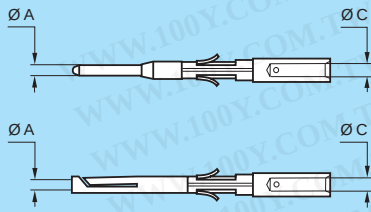
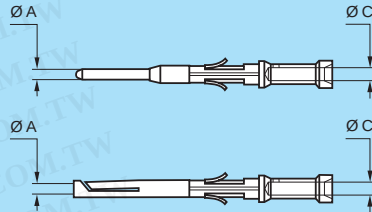


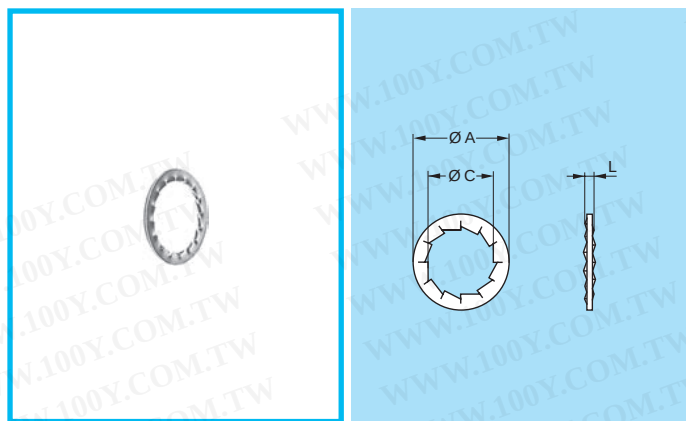
图 2



	类型	Ø A (mm)	Ø C (mm)	针芯编号	
				公针芯	母针芯
00	302	0.5	0.45	FGG.00.554.ZZC	EGG.00.654.ZZM
	303	0.5	0.45	FGG.00.554.ZZC	EGG.00.654.ZZM
	304	0.5	0.45	FGG.00.554.ZZC	EGG.00.654.ZZM
0B 0K	302/303	0.9	1.10	FGG.0B.560.ZZC	EGG.0B.660.ZZM
	304/305	0.7	0.80	FGG.0B.555.ZZC	EGG.0B.655.ZZM
	306/307/309	0.5	0.45	FGG.0B.554.ZZC	-
0S	302	0.9	1.10	FGG.0B.560.ZZC	EGG.0B.660.ZZM
	304	0.7	0.80	FGG.0B.555.ZZC	EGG.0B.655.ZZM
1B 1K	302/303	1.3	1.40	FGG.1B.565.ZZC	EGG.1B.665.ZZM
	304/305	0.9	1.10	FGG.1B.560.ZZC	EGG.1B.660.ZZM
	306/307/308	0.7	0.80	FGG.1B.555.ZZC	EGG.1B.655.ZZM
	310/314/316	0.5	0.45	FGG.1B.554.ZZC	-
1S	302	1.3	1.40	FGG.1B.565.ZZC	EGG.1B.665.ZZM
	304	0.9	1.10	FGG.1B.560.ZZC	EGG.1B.660.ZZM
2B 2K	302	2.0	2.40	FGG.2B.575.ZZC	EGG.2B.675.ZZM
	303	1.6	1.90	FGG.2B.570.ZZC	EGG.2B.670.ZZM
	304/305	1.3	1.40	FGG.2B.565.ZZC	EGG.2B.665.ZZM
	306/307	1.3	1.40	FGG.2B.565.ZZC	EGG.2B.665.ZZM
	308/310	0.9	1.10	FGG.2B.560.ZZC	EGG.2B.660.ZZM
	312/314/316	0.7	0.80	FGG.2B.555.ZZC	EGG.2B.655.ZZM
	318/319	0.7	0.80	FGG.2B.555.ZZC	EGG.2B.655.ZZM
2S	306	1.3	1.40	FGG.2B.565.ZZC	EGG.2B.665.ZZM
3B 3K	302	3.0	2.90	FGG.3B.580.ZZC	EGG.3B.680.ZZM
	303/304/309	2.0	2.40	FGG.3B.575.ZZC	EGG.3B.675.ZZM
	305/306/307	1.6	1.90	FGG.3B.570.ZZC	EGG.3B.670.ZZM
	308/309/310	1.3	1.40	FGG.3B.565.ZZC	EGG.3B.665.ZZM
	312/314	0.9	1.10	FGG.3B.560.ZZC	EGG.3B.660.ZZM
	316/318	0.9	1.10	FGG.3B.560.ZZC	EGG.3B.660.ZZM
	320/322/324	0.7	0.80	FGG.3B.555.ZZC	EGG.3B.655.ZZM
	326/330	0.7	0.80	FGG.3B.555.ZZC	EGG.3B.655.ZZM
4B 4K	304	3.0	2.90	FGG.4B.580.ZZC	EGG.4B.680.ZZM
	306/307	2.0	2.40	FGG.4B.575.ZZC	EGG.4B.675.ZZM
	310	1.6	1.90	FGG.4B.570.ZZC	EGG.4B.670.ZZM
	312	1.3	1.40	FGG.4B.565.ZZC	EGG.4B.665.ZZM
	316/320	0.9	1.10	FGG.4B.560.ZZC	EGG.4B.660.ZZM
	324/330	0.9	1.10	FGG.4B.560.ZZC	EGG.4B.660.ZZM
5B 5K	340/348	0.7	0.80	FGG.4B.555.ZZC	EGG.4B.655.ZZM
	304	4.0	4.00	FGG.5B.582.ZZC	EGG.5B.682.ZZM
	310	3.0	2.90	FGG.5B.580.ZZC	EGG.5B.680.ZZM
	314/316	2.0	2.40	FGG.5B.575.ZZC	EGG.5B.675.ZZM
	320	1.6	1.90	FGG.5B.570.ZZC	EGG.5B.670.ZZM
	330/340/348	1.3	1.40	FGG.5B.565.ZZC	EGG.5B.665.ZZM
	350/354/364	0.9	1.10	FGG.5B.560.ZZC	EGG.5B.660.ZZM

	类型	Ø A (mm)	Ø C (mm)	针芯编号	
				公针芯	母针芯
0B 0K	302/303	0.9	0.80	FGG.0B.561.ZZC	EGG.0B.661.ZZM
	302/303	0.9	0.45	FGG.0B.562.ZZC	EGG.0B.662.ZZM
	304/305	0.7	0.45	FGG.0B.556.ZZC	EGG.0B.656.ZZM
0S	302	0.9	0.80	FGG.0B.561.ZZC	EGG.0B.661.ZZM
	302	0.9	0.45	FGG.0B.562.ZZC	EGG.0B.662.ZZM
	304	0.7	0.45	FGG.0B.556.ZZC	EGG.0B.656.ZZM
1B 1K	302/303	1.3	1.10	FGG.1B.566.ZZC	EGG.1B.666.ZZM
	304/305	0.9	0.80	FGG.1B.561.ZZC	EGG.1B.661.ZZM
	306/307/308	0.7	0.45	FGG.1B.556.ZZC	EGG.1B.656.ZZM
1S	302	1.3	1.10	FGG.1B.566.ZZC	EGG.1B.666.ZZM
	304	0.9	0.80	FGG.1B.561.ZZC	EGG.1B.661.ZZM
2B 2K	302	2.0	1.90	FGG.2B.576.ZZC	EGG.2B.676.ZZM
	303	1.6	1.40	FGG.2B.571.ZZC	EGG.2B.671.ZZM
	304/305	1.3	1.10	FGG.2B.566.ZZC	EGG.2B.666.ZZM
	306/307	1.3	1.10	FGG.2B.566.ZZC	EGG.2B.666.ZZM
	304/305	1.3	0.80	FGG.2B.567.ZZC	EGG.2B.667.ZZM
	306/307	1.3	0.80	FGG.2B.567.ZZC	EGG.2B.667.ZZM
	308/310	0.9	0.80	FGG.2B.561.ZZC	EGG.2B.661.ZZM
	308/310	0.9	0.45	FGG.2B.562.ZZC	EGG.2B.662.ZZM
	312/314/316	0.7	0.45	FGG.2B.556.ZZC	EGG.2B.656.ZZM
	318/319	0.7	0.45	FGG.2B.556.ZZC	EGG.2B.656.ZZM
2S	306	1.3	1.10	FGG.2B.566.ZZC	EGG.2B.666.ZZM
	306	1.3	0.80	FGG.2B.567.ZZC	EGG.2B.667.ZZM
3B 3K	303/304/309	2.0	1.90	FGG.3B.576.ZZC	EGG.3B.676.ZZM
	305/306/307	1.6	1.40	FGG.3B.571.ZZC	EGG.3B.671.ZZM
	308/309/310	1.3	1.10	FGG.3B.566.ZZC	EGG.3B.666.ZZM
	312/314	0.9	0.80	FGG.3B.561.ZZC	EGG.3B.661.ZZM
	316/318	0.9	0.80	FGG.3B.561.ZZC	EGG.3B.661.ZZM
	316/318	0.9	0.45	FGG.3B.562.ZZC	EGG.3B.662.ZZM
	320/322/324	0.7	0.80	FGG.3B.555.ZZC	EGG.3B.655.ZZM
	326/330	0.7	0.80	FGG.3B.555.ZZC	EGG.3B.655.ZZM
	320/322/324	0.7	0.45	FGG.3B.556.ZZC	EGG.3B.656.ZZM
	326/330	0.7	0.45	FGG.3B.556.ZZC	EGG.3B.656.ZZM
4B 4K	306/307	2.0	1.90	FGG.4B.576.ZZC	EGG.4B.676.ZZM
	310	1.6	1.40	FGG.4B.571.ZZC	EGG.4B.671.ZZM
	312	1.3	1.10	FGG.4B.566.ZZC	EGG.4B.666.ZZM
	316/320	0.9	0.80	FGG.4B.561.ZZC	EGG.4B.661.ZZM
	324/330	0.9	0.80	FGG.4B.561.ZZC	EGG.4B.661.ZZM
	340/348	0.7	0.45	FGG.4B.556.ZZC	EGG.4B.656.ZZM
5B 5K	314/316	2.0	1.90	FGG.5B.576.ZZC	EGG.5B.676.ZZM
	320	1.6	1.90	FGG.5B.570.ZZC	EGG.5B.670.ZZM
	320	1.6	1.40	FGG.5B.571.ZZC	EGG.5B.671.ZZM
	330/340/348	1.3	1.40	FGG.5B.565.ZZC	EGG.5B.665.ZZM
	330/340/348	1.3	1.10	FGG.5B.566.ZZC	EGG.5B.666.ZZM
	350/354/364	0.9	0.80	FGG.5B.561.ZZC	EGG.5B.661.ZZM

GBA 锁定垫圈

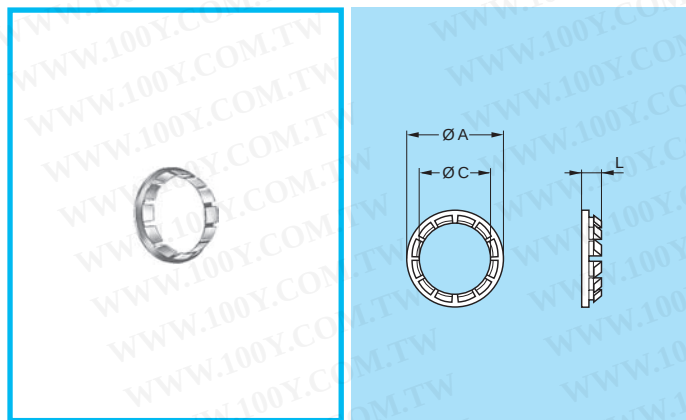


● 材料: 青铜镀镍 (3μm)

编号	系列	尺寸 (mm)		
		A	C	L
GBA.00.250.FN	00	9.5	7.1	1.0
GBA.0S.250.FN	0S-0B	12.5	9.1	1.0
GBA.1S.250.FN	1S-1B 1D	16.0	12.1	1.0
GBA.1E.250.FN	1E-1K	21.8	16.1	1.2
GBA.2S.250.FN	2S-2B 2C-2G	19.5	15.1	1.2
GBA.3S.250.FN	3S-3B	25.0	18.1	1.4
GBA.4S.250.FN	4S-4B	32.0	25.1	1.4

注: 如需单独订购, 请使用上述编号。

GBB 锥形垫圈

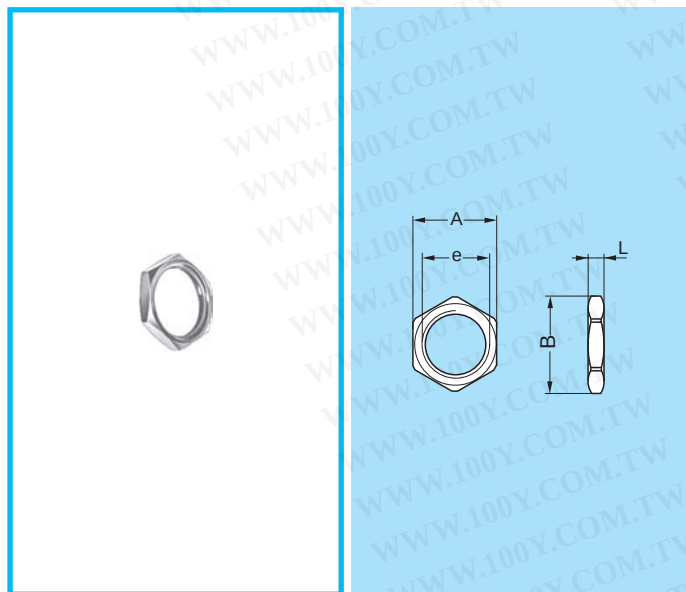


● 材料: 黄铜镀镍 (3μm)

编号	系列	尺寸 (mm)		
		A	C	L
GBB.00.250.LN	00	9	7.1	2.0
GBB.0S.250.LN	0S-0B	11	9.1	2.5
GBB.1S.250.LN	1S-1B	15	12.1	3.5
GBB.2S.250.LN	2S-2B 2C-2G	18	15.1	4.0
GBB.3S.250.LN	3S-3B	22	18.1	4.5
GBB.4S.250.LN	4S-4B	28	25.2	5.0
GBB.5S.250.LN	5S-5B	40	35.2	7.5

注: 5B 和 5S 系列的插座发货时都配有一个锥形垫圈。
如需单独订购, 请使用上述编号。

GEA 六角螺母

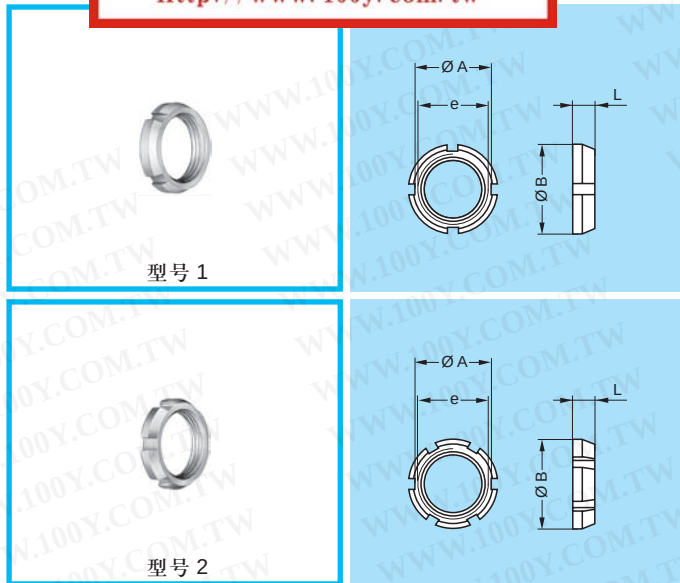


● 材料:
 - 黄铜镀镍 (3μm)
 - 铝合金, 阳极电镀, 自然色
 - 不锈钢

编号	系列	尺寸 (mm)			
		A	B	e	L
GEA.00.240.LN	00	9	10.2	M7 x 0.50	2.0
GEA.0S.240.LN	0S-0B	11	12.4	M9 x 0.60	2.0
GEA.0S.241.LN	0S-0B	12	13.8	M10 x 0.75	2.5
GEA.0E.240.LN	0E-0K-0L 1S-1B	17	19.2	M14 x 1.00	2.5
GEA.1S.240.LN	1S-1B-1D	14	15.8	M12 x 1.00	2.5
GEA.1E.240.LN	1E-1K-1L 2S-2B	19	21.5	M16 x 1.00	3.0
GEA.2S.240.LN	2S-2B	17	19.2	M15 x 1.00	2.7
GEA.2E.240.LN	2E-2K-2L	24	27.0	M20 x 1.00	4.0
GEA.3S.240.LN	3S-3B	22	25.0	M18 x 1.00	3.0
GEA.3E.240.LN	3E-3K	30	34.0	M24 x 1.00	5.0
GEA.4S.240.LN	4S-4B	30	34.0	M25 x 1.00	5.0
GEA.4E.240.LN	4E-4K	36	40.5	M30 x 1.00	7.0

注: 如需单独订购, 请使用上述编号。编号最后的“LN”表示螺母的材料和表面处理方式。如果需要铝合金或不锈钢材料的螺母, 请分别用“PT”或“AZ”代替“LN”即可。

GEG 开槽螺母

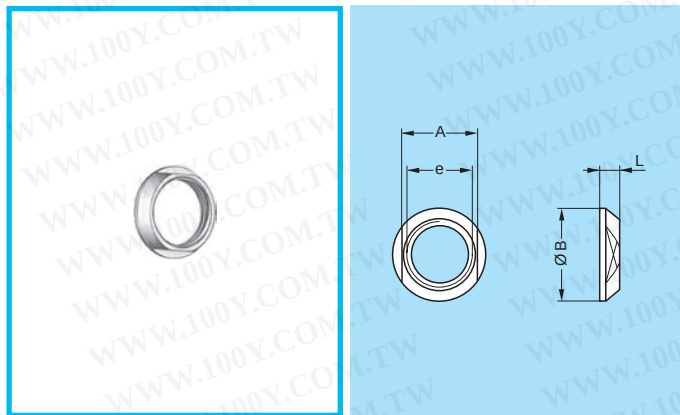


编号	系列	尺寸 (mm)			
		A	B	e	L
GEG.00.240.LC	1	8.6	10	M7 x 0.5	2.5
GEG.0S.240.LC	1	10.5	12	M9 x 0.6	2.5
GEG.0E.240.LC	1	15.8	18	M14 x 1.0	3.5
GEG.1S.240.LC	1	14.0	16	M12 x 1.0	3.5
GEG.1E.240.LC	2	17.5	20	M16 x 1.0	3.5
GEG.1S.242.LC	1	12.1	14	M11 x 0.5	3.5
GEG.2S.240.LC	2	17.5	20	M15 x 1.0	3.5
GEG.2S.241.LC	2	20.5	24	M19 x 1.0	3.5
GEG.2E.240.LC	2	22.5	25	M20 x 1.0	3.5

● 材料：黄铜镀铬 (镍 3μm + 铬 0.3μm)

注：00、0B、0S、1B、1S、2B和2S系列的后面板安装型插座在发货时都配有这种锯齿螺母。如需单独订购，请使用表格中的编号。

GEC 圆锥螺母

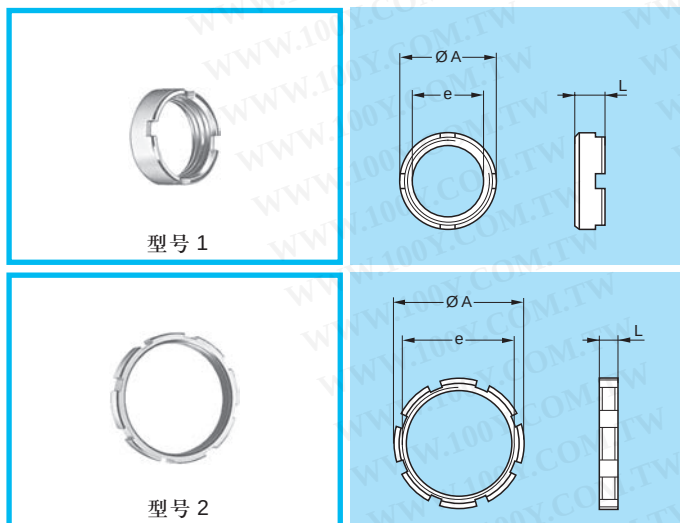


● 材料：黄铜镀铬 (镍 3μm + 铬 0.3μm)

注：3B、3K、3S、3E、4B、4K、4S、4E、5B、5K、5S、5E、6S和6E系列的后面板安装型插座在发货时都配有这种圆锥螺母。如需单独订购，请使用右边表格中的编号。

编号	尺寸 (mm)			
	A	B	e	L
GEC.00.240.LC	8	10.0	M7 x 0.5	2.5
GEC.0S.240.LC	10	12.0	M9 x 0.6	2.5
GEC.0E.240.LC	16	18.0	M14 x 1.0	3.0
GEC.1S.240.LC	13	16.0	M12 x 1.0	3.2
GEC.1S.241.LC	17	20.0	M16 x 1.0	4.0
GEC.1S.242.LC	12	14.0	M11 x 0.5	3.2
GEC.2S.240.LC	17	20.0	M15 x 1.0	3.8
GEC.2S.241.LC	20	24.0	M19 x 1.0	5.8
GEC.2E.240.LC	22	25.0	M20 x 1.0	5.0
GEC.3S.240.LC	20	24.0	M18 x 1.0	4.5
GEC.3E.240.LC	27	30.0	M24 x 1.0	4.5
GEC.4S.240.LC	27	30.0	M25 x 1.0	4.5
GEC.4K.241.LC	32	35.5	M30 x 1.0	5.0
GEC.5S.240.LC	37	41.0	M35 x 1.0	5.0

GEB 圆螺母



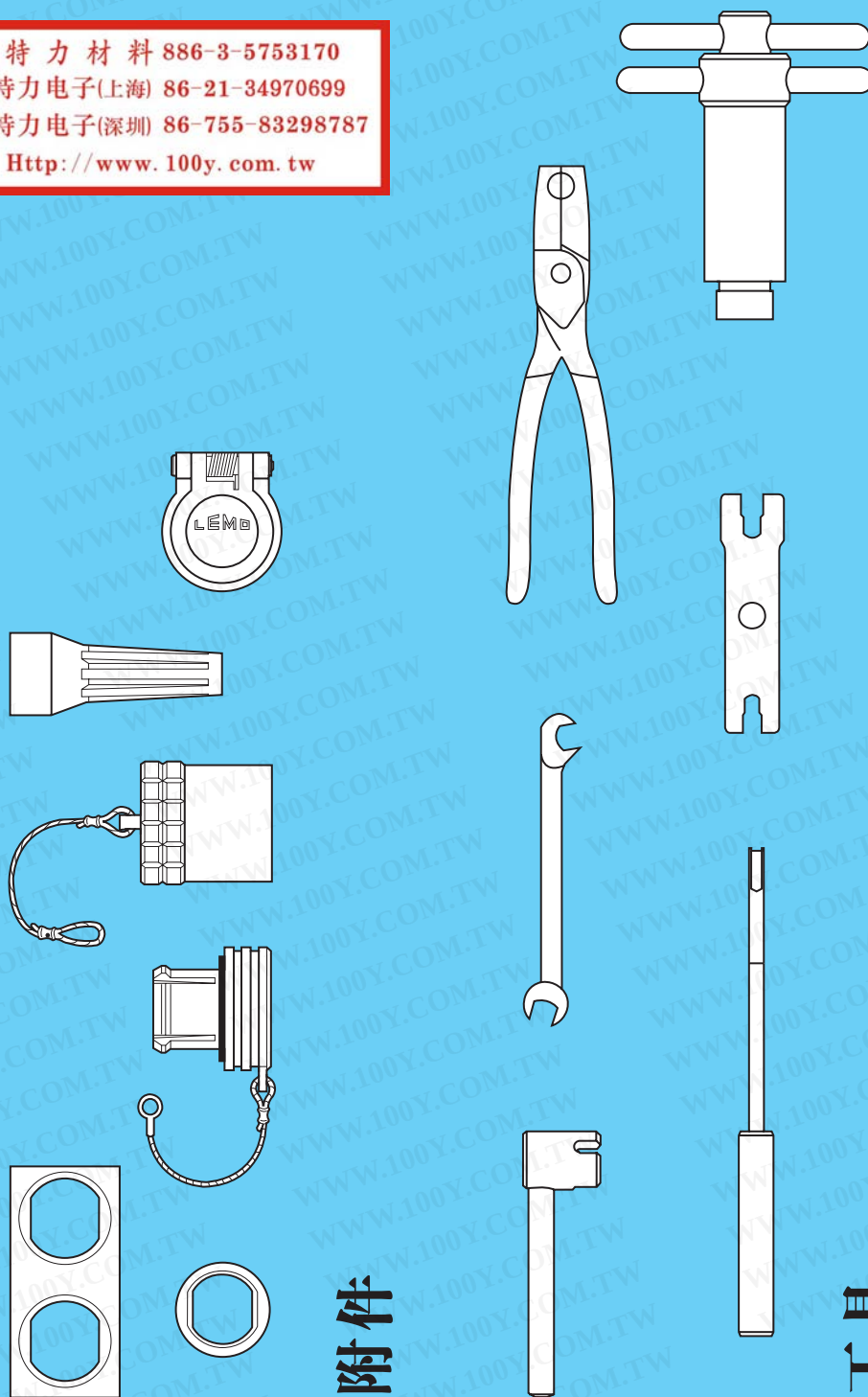
● 材料：黄铜镀镍 (3μm)

编号	系列	尺寸 (mm)		
		A	e	L
GEB.00.240.LN	1	9.0	M7 x 0.50	4.0
GEB.0S.240.LN	1	11.0	M9 x 0.60	4.0
GEB.0E.240.LN	1	18.0	M14 x 1.00	5.0
GEB.1S.240.LN	1	14.0	M12 x 1.00	5.0
GEB.1E.240.LN	1	20.0	M16 x 1.00	5.0
GEB.2S.240.LN	1	18.0	M15 x 1.00	5.5
GEB.2B.240.LN	1	17.5	M15 x 0.75	2.5
GEB.3S.240.LN	1	22.0	M18 x 1.00	5.5
GEB.4S.240.LN	1	28.0	M25 x 1.00	6.0
GEB.5S.240.LN	2	40.0	M35 x 1.00	8.0
GEB.5E.240.LN	2	54.0	M45 x 1.50	8.0
GEB.6S.241.LN	2	54.0	M48 x 1.50	8.0
GEB.6E.240.LN	2	65.0	M55 x 2.00	9.0

注：5B、5K、5S、5E、6S和6E系列的插座在发货时都配有型号2的圆螺母。如需单独订购，请使用表格中的编号。

勝特力材料 886-3-5753170
勝特力电子(上海) 86-21-34970699
勝特力电子(深圳) 86-755-83298787
[Http://www.100y.com.tw](http://www.100y.com.tw)

勝特力材料 886-3-5753170
勝特力电子(上海) 86-21-34970699
勝特力电子(深圳) 86-755-83298787
[Http://www.100y.com.tw](http://www.100y.com.tw)

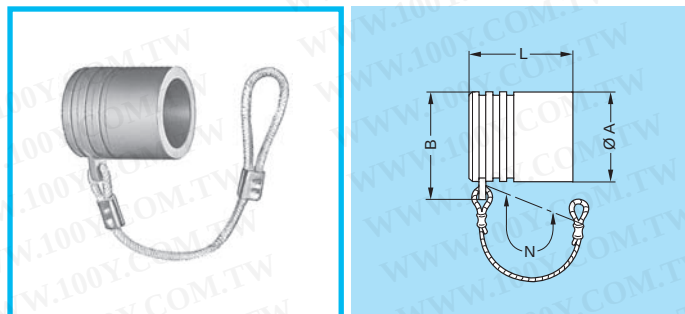


附件

工具

附件

勝特力材料 886-3-5753170
 勝特力电子(上海) 86-21-34970699
 勝特力电子(深圳) 86-755-83298787
[Http://www.100y.com.tw](http://www.100y.com.tw)

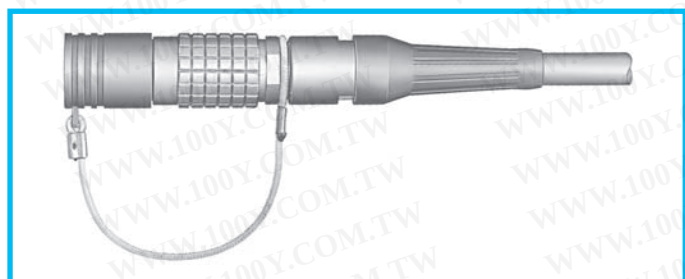


- 壳体材料: 聚甲醛 (POM), 灰色 (或黑色)
- 挂绳材料: 六价聚酰胺, 灰色 (或黑色)
- 垫圈材料: 硅橡胶
- 最大工作温度: 100°C
- 防水等级: IP61 (IEC 60529标准)

BFG 插头盖

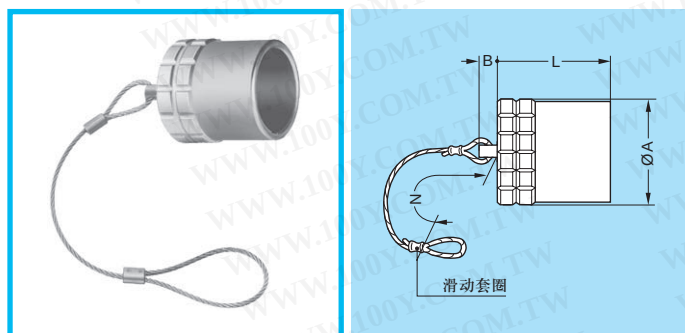
产品编号	系列	尺寸 (mm)			
		A	B	L	N
BFG.00.100.PCSG	00	7.5	9.8	10.0	60
BFG.0B.100.PCSG	0S-0B	9.5	12.0	12.2	85
BFG.1B.100.PCSG	1S-1B 1D	12.0	15.0	13.8	85
BFG.2B.100.PCSG	2S-2B	15.0	18.0	15.0	85
BFG.3B.100.PCSG	3S-3B	18.5	22.0	18.5	95

注: 此插头盖只有 (G) 型定位销一种规格。根据要求, 也可提供黑色, 只要将型号最后一个字母“G”替换成“N”即可。



挂绳安装

将插头放入挂绳套圈。
再将套圈推入尾盖前面的凹槽内, 拉紧套圈即可。

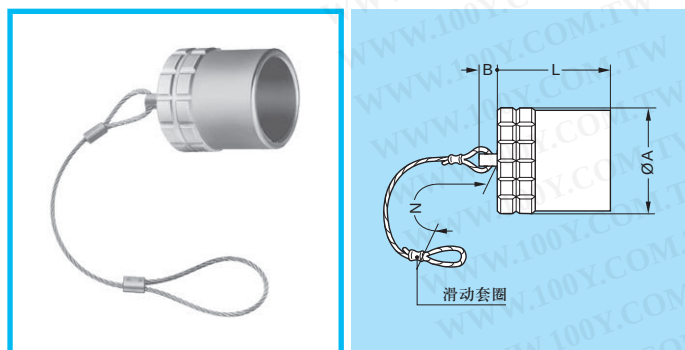


- 壳体材料: 黄铜镀镍 (镀层厚度 3 μm)
- 挂绳材料: 不锈钢
- 压接管材料: 黄铜镀镍 + 聚烯烃
- O形圈材料: 硅橡胶或FPM
- 最高工作温度: 135°C
- 防水等级: 用于E系列可达IP68 (IEC 60529标准)

BFA 插头盖

产品编号	系列	尺寸 (mm)			
		A	B	L	N
BFA.0E.100.NAS	0E	14.0	6	12.5	85
BFA.1E.100.NAS	1E	16.0	6	15.5	85
BFA.2E.100.NAS	2E	19.5	6	17.5	85
BFA.3E.100.NAS	3E	23.0	6	22.0	120
BFA.4E.100.NAS	4E	29.0	10	22.5	120
BFA.4S.100.NAS	4S	25.0	10	22.2	120
BFA.5E.100.NAS	5E	44.0	10	27.0	150
BFA.5S.100.NAS	5S	36.0	10	30.2	150
BFA.6S.100.NAS	6S	46.0	10	33.0	150

注: 型号的最后一个字母“S”表示O形圈材料 (为硅橡胶)。O形圈也可由FPM材料制成, 需要的话, 用字母“V”代替“S”即可。



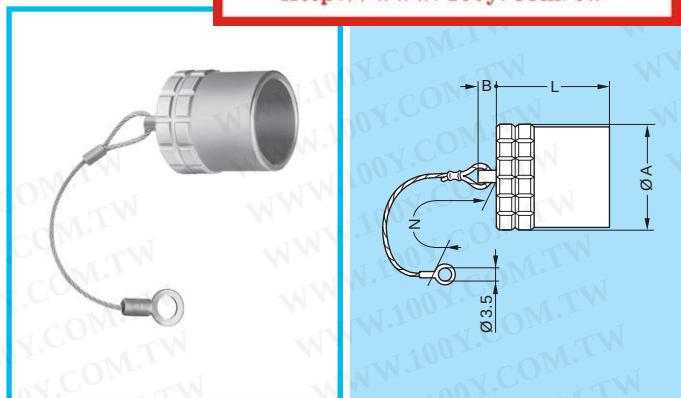
- 壳体材料: 黄铜镀镍 (镀层厚度 3 μm)
- 挂绳材料: 不锈钢
- 压接管材料: 黄铜镀镍 + 聚烯烃
- O形圈材料: 硅橡胶或FPM
- 最高工作温度: 135°C
- 防水等级: 用于E系列和K系列可达IP68 (IEC 60529标准)

BFG 插头盖, 带定位销 (G)

产品编号	系列	尺寸 (mm)			
		A	B	L	N
BFG.0K.100.NAS	0K-0L	14.0	6	12.5	85
BFG.1K.100.NAS	1K-1L	16.0	6	15.5	85
BFG.2K.100.NAS	2K-2L	19.5	6	17.5	85
BFG.3K.100.NAS	3K	23.0	6	22.0	120
BFG.4B.100.NAS	4B	25.0	10	20.2	120
BFG.4K.100.NAS	4K	29.0	10	22.5	120
BFG.5B.100.NAS	5B	36.0	10	27.2	150
BFG.5K.100.NAS	5K	44.0	10	27.0	150
BFG.6E.100.NAS	6E	54.0	10	31.0	150

注: 此插头盖只有 (G) 型定位销一种规格。型号的最后一个字母“S”表示O形圈材料 (为硅橡胶)。O形圈也可由FPM材料制成, 需要的话, 用字母“V”代替“S”即可。

BHG 插头盖，螺母或法兰固定

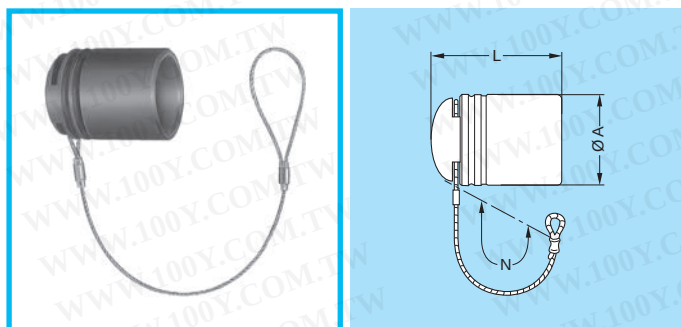


产品编号	系列	尺寸 (mm)			
		A	B	L	N
BHG.0K.100.NAS	0K-0L	14.0	6	12.5	85
BHG.1K.100.NAS	1K-1L	16.0	6	15.5	85
BHG.2K.100.NAS	2K-2L	19.5	6	17.5	85
BHG.3K.100.NAS	3K	23.0	6	22.0	120
BHG.4B.100.NAS	4B	25.0	10	20.2	120
BHG.4K.100.NAS	4K	29.0	10	22.5	120
BHG.5B.100.NAS	5B	36.0	10	27.2	150
BHG.5K.100.NAS	5K	44.0	10	27.0	150
BHG.6E.100.NAS	6E	54.0	10	31.0	150

注：此插头盖只有 (G) 型定位销一种规格。型号的最后字母“S”表示 O 形圈材料 (为硅橡胶)。O 形圈也可由 FPM 材料制成，需要的话，用字母“V”代替“S”即可。

- 壳体材料：黄铜镀镍 (镀层厚度 3 μm)
- 挂绳材料：不锈钢
- 压接套管材料：黄铜镀镍 + 聚烯烃
- O 形圈材料：硅橡胶或 FPM
- 最高工作温度：135°C
- 防水等级：用于 E 系列和 K 系列可达 IP68 (IEC 60529 标准)

BFG 插头盖

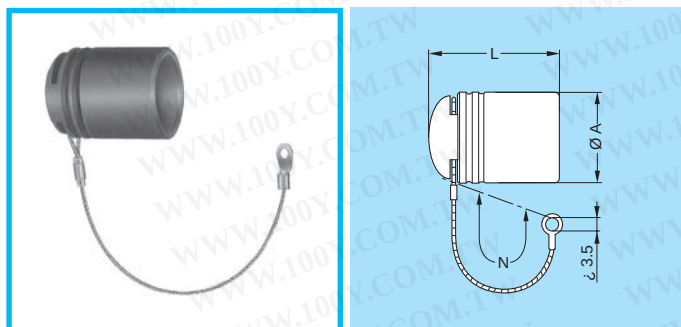


产品编号	系列	尺寸 (mm)		
		A	L	N
BFG.3K.100.EAN	3K	24	30	155

- 材料：黑色 EPDM 材料
- 挂绳材料：不锈钢
- 压接套管材料：黄铜镀镍 + 聚烯烃

注：此类盖适用于任何一种定位销配置。

BHA 插头盖

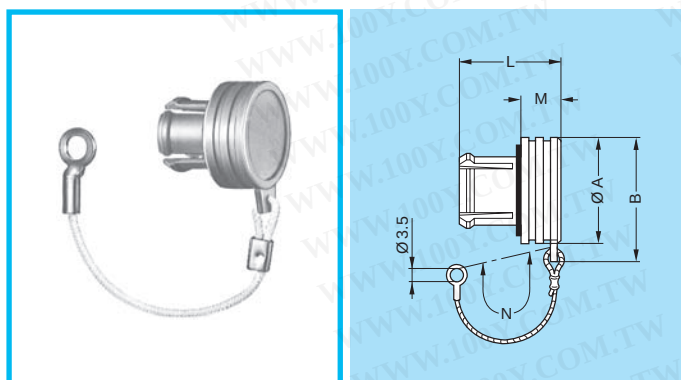


产品编号	系列	尺寸 (mm)		
		A	L	N
BHA.3K.100.EAN	3K	24	30	120

- 材料：黑色 EPDM 材料
- 挂绳材料：不锈钢
- 压接套管材料：黄铜镀镍 + 聚烯烃

注：此类盖适用于任何一种定位销配置。

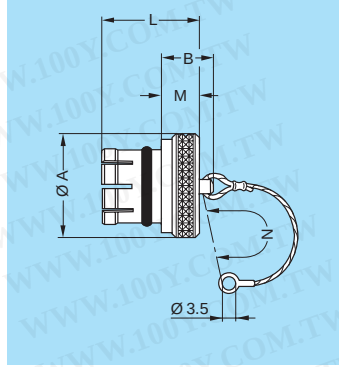
BRA 遮蔽盖，适用于固定式插座和直式浮动插座



产品编号	系列	尺寸 (mm)				
		A	B	L	M	N
BRA.00.200.PCSG	00	7.5	9.8	9.0	3.5	60
BRA.0B.200.PCSG	0S-0B	10.0	12.5	11.0	4.8	60
BRA.1B.200.PCSG	1S-1B 1D	14.0	17.0	13.5	5.6	60
BRA.2B.200.PCSG	2S-2B 2C-2G	18.0	21.0	14.5	6.0	60
BRA.3B.200.PCSG	3S-3B	22.0	25.5	17.0	7.0	60

注：此类盖适用于任何一种定位销配置。根据要求，也可提供黑色，只要将型号最后字母“G”替换成“N”即可。

- 壳体材料：聚甲醛 (POM)，灰色 (或黑色)
- 挂绳材料：六价聚酰胺，灰色 (或黑色)
- 垫圈材料：硅橡胶
- 最大工作温度：100°C
- 防水等级：IP61 (IEC 60529 标准)

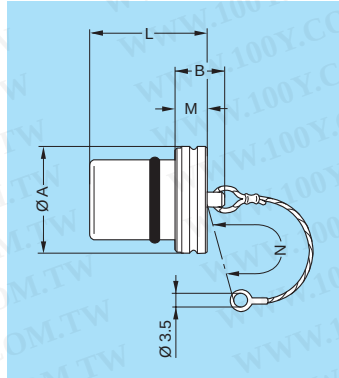


- 壳体材料：黄铜镀镍 (镀层厚度 3 μm)
- 挂绳材料：不锈钢
- 压接套管材料：黄铜镀镍 + 聚烯烃
- O形圈材料：硅橡胶或 FPM
- 最高工作温度：135°C
- 防水等级：用于 S 系列可达 IP61 (IEC 60529 标准)

BRE 遮蔽盖，适用于固定式和浮动式插座

产品编号	系列	尺寸 (mm)					
		A	B	L	M	N	
BRE.00.200.NAS	00	8	7.5	8.8	3.5	60	
BRE.0S.200.NAS	0S-0B	10	9.5	10.5	4.5	85	
BRE.1S.200.NAS	1S-1B 1D	14	11.0	12.5	5.0	85	
BRE.2S.200.NAS	2S-2B	18	12.0	14.0	6.0	85	
BRE.3S.200.NAS	3S-3B	22	14.0	18.0	8.0	120	
BRE.4S.200.NAS	4S-4B	28	20.0	23.0	10.0	120	
BRE.5S.200.NAS	5S-5B	40	22.0	30.0	12.0	150	
BRE.6S.200.NAS	6S	54	22.0	30.0	12.0	150	
BRE.6E.200.NAS	6E	57	24.0	31.5	14.0	150	

注：此类盖适用于任何一种定位销配置。型号的最后一个字母“S”表示 O 形圈材料 (为硅橡胶)。O 形圈也可由 FPM 材料制成，需要的话，用字母“V”代替“S”即可。

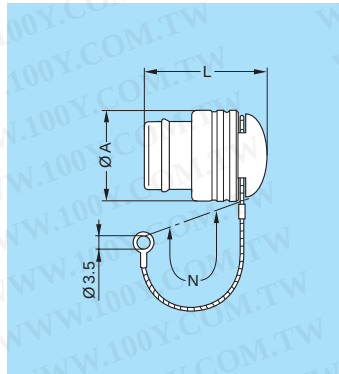


- 壳体材料：黄铜镀镍 (镀层厚度 3 μm)
- 挂绳材料：不锈钢
- 压接套管材料：黄铜镀镍 + 聚烯烃
- O形圈材料：硅橡胶或 FPM
- 最高工作温度：135°C
- 防水等级：IP68 (IEC 60529 标准)

BRE 遮蔽盖，适用于固定式和浮动式插座

产品编号	系列	尺寸 (mm)					
		A	B	L	M	N	
BRE.0K.200.NAS	0K-0E-0L	15.0	10	15.0	4	85	
BRE.1K.200.NAS	1K-1E-1L	17.0	12	20.0	6	85	
BRE.2K.200.NAS	2K-2E-2L	20.5	14	24.0	8	85	
BRE.3K.200.NAS	3K-3E	24.0	14	28.0	8	120	
BRE.4K.200.NAS	4K-4E	30.0	20	30.5	10	120	
BRE.5K.200.NAS	5K-5E	44.0	22	37.0	12	150	

注：此类盖适用于任何一种定位销配置。型号的最后一个字母“S”表示 O 形圈材料 (为硅橡胶)。O 形圈也可由 FPM 材料制成，需要的话，用字母“V”代替“S”即可。

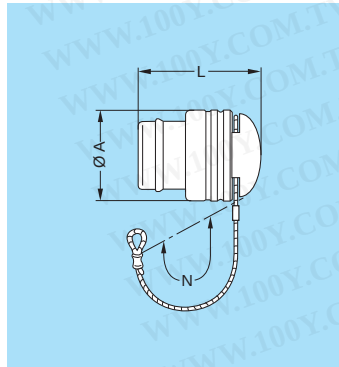


BRA 遮蔽盖，适用于浮动式插座

产品编号	系列	尺寸 (mm)			
		A	L	M	N
BRA.3K.200.EAN	3K	24	26	14.5	120
BRA.4K.200.EAN	4K	31	31	17.0	120

- 材料：黑色 EPDM 材料
- 挂绳材料：不锈钢
- 压接套管材料：黄铜镀镍 + 聚烯烃

注：此类盖适用于任何一种定位销配置。



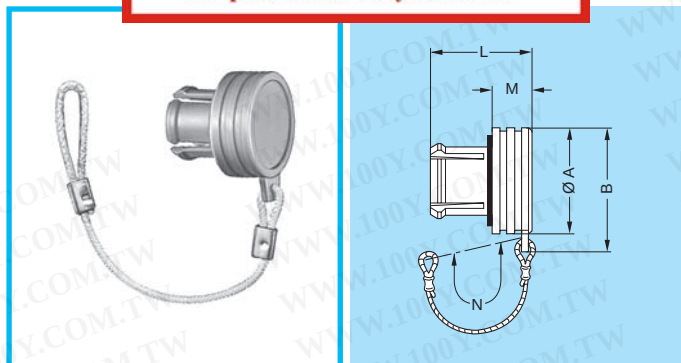
BRF 遮蔽盖，适用于浮动式插座

产品编号	系列	尺寸 (mm)		
		A	L	N
BRF.3K.200.EAN	3K	24	26	155

- 材料：黑色 EPDM 材料
- 挂绳材料：不锈钢
- 压接套管材料：黄铜镀镍 + 聚烯烃

注：此类盖适用于任何一种定位销配置。

BRD 遮蔽盖, 适用于浮动式插座



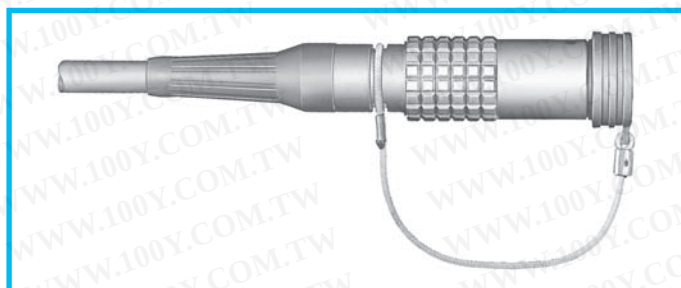
- 壳体材料: 聚甲醛 (POM), 灰色 (或黑色)
- 挂绳材料: 六价聚酰胺, 灰色 (或黑色)
- 垫圈材料: 硅橡胶
- 最大工作温度: 100°C
- 防水等级: IP 61 (IEC 60529标准)

产品编号	系列	尺寸 (mm)				
		A	B	L	M	N
BRD.00.200.PCSG	00	7.5	9.8	9.0	3.5	85
BRD.0B.200.PCSG	0S-0B	10.0	12.5	11.0	4.8	85
BRD.1B.200.PCSG	1S-1B 1D	14.0	17.0	13.5	5.6	85
BRD.2B.200.PCSG	2S-2B	18.0	21.0	14.5	6.0	85
BRD.3B.200.PCSG	3S-3B	22.0	25.5	17.0	7.0	95

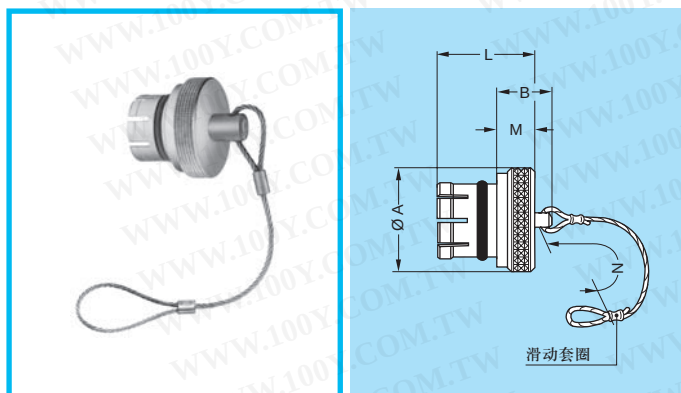
注: 根据要求, 也可提供黑色, 只要将型号最后一个字母“G”替换成“N”即可。

挂绳安装

将插座放入挂绳套圈。
 再将套圈推入尾盖前面的凹槽内, 拉紧套圈即可。



BRF 遮蔽盖, 适用于浮动式插座

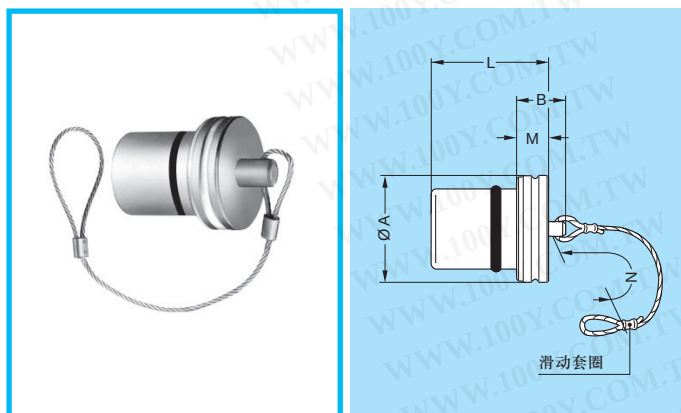


- 壳体材料: 黄铜镀镍 (镀层厚度 3 µm)
- 挂绳材料: 不锈钢
- 压接套管材料: 黄铜镀镍 + 聚烯烃
- O形圈材料: 硅橡胶或FPM
- 最高工作温度: 135°C
- 防水等级: 用于 S 系列可达 IP 61 (IEC 60529标准)

产品编号	系列	尺寸 (mm)				
		A	B	L	M	N
BRF.00.200.NAS	00	8	7.5	8.8	3.5	85
BRF.0S.200.NAS	0S-0B	10	9.5	10.5	4.5	85
BRF.1S.200.NAS	1S-1B 1D	14	11.0	12.5	5.0	85
BRF.2S.200.NAS	2S-2B	18	12.0	14.0	6.0	85
BRF.3S.200.NAS	3S-3B	22	14.0	18.0	8.0	120
BRF.4S.200.NAS	4S-4B	28	20.0	23.0	10.0	120
BRF.5S.200.NAS	5S-5B	40	22.0	30.0	12.0	150
BRF.6S.200.NAS	6S	54	22.0	30.0	12.0	150

注: 此类盖适用于任何一种定位销配置。型号的最后一个字母“S”表示 O 形圈材料 (为硅橡胶)。O 形圈也可由 FPM 材料制成, 需要的话, 用字母“V”代替“S”即可。

BRF 遮蔽盖, 适用于浮动式插座



- 壳体材料: 黄铜镀镍 (镀层厚度 3 µm)
- 挂绳材料: 不锈钢
- 压接套管材料: 黄铜镀镍 + 聚烯烃

产品编号	系列	尺寸 (mm)				
		A	B	L	M	N
BRF.0K.200.NAS	0K-0E-0L	15.0	10	15.0	4	85
BRF.1K.200.NAS	1K-1E-1L	17.0	12	20.0	6	85
BRF.2K.200.NAS	2K-2E-2L	20.5	14	24.0	8	85
BRF.3K.200.NAS	3K-3E	24.0	14	28.0	8	120
BRF.4K.200.NAS	4K-4E	30.0	20	30.5	10	120
BRF.5K.200.NAS	5K-5E	44.0	22	37.0	12	150

注: 此类盖适用于任何一种定位销配置。型号的最后一个字母“S”表示 O 形圈材料 (为硅橡胶)。O 形圈也可由 FPM 材料制成, 需要的话, 用字母“V”代替“S”即可。

- O形圈材料: 硅橡胶或FPM
- 最高工作温度: 135°C
- 防水等级: IP 68 (IEC 60529标准)



BRR 弹簧防尘盖, 用于 ERA、ERN 和 EG● 插座或者 PSA 和 PK● 固定式插座

产品编号	系列	尺寸 (mm)						
		A	B	C	E	L	M	N
BRR.0S.200.PZSG	0S-0B	11.0	13.3	9.0	5.8	5.0	1.2	15.3
BRR.1S.200.PZSG	1S-1B 1D	14.2	17.1	12.0	6.0	6.3	1.5	20.3
BRR.2S.200.PZSG	2S-2B 2C-2G	18.6	22.4	15.2	6.5	8.2	2.0	26.2
BRR.3S.200.PZSG	3S-3B	22.5	26.5	18.2	9.0	8.8	2.5	30.8

注: 根据要求, 也可提供黑色, 只要将型号最后一个字母“G”替换成“N”即可。

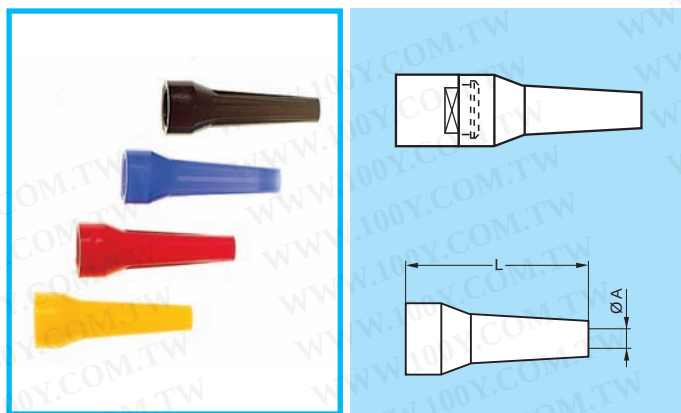
- 壳体材料: 聚甲醛 (POM), 灰色 (或黑色)
- 垫圈材料: 硅橡胶
- 弹簧材料: 不锈钢
- 轴的材料: 黄铜镀镍
- 最大工作温度: 100°C
- 防水等级: IP61 (IEC 60529标准)

BRR 弹簧防尘盖, 用于 ED● 和 EB● 固定式插座

产品编号	系列	尺寸 (mm)					
		A	B	C	L	M	N
BRR.3K.200.PZSG	3K	29	29	23	8.1	3	33.2

注: 使用内六角(0.9mm)将防尘盖安装在连接器上。

- 盖体材料: 灰色聚甲醛 (POM)
- 壳体材料: 黄铜镀镍
- 垫圈材料: 硅橡胶
- 弹簧材料: 不锈钢
- 轴的材料: 黄铜镀镍
- 最大工作温度: 100°C
- 防水等级: IP61 (IEC 60529标准)



GM● 护套(聚亚安脂)

护套由热塑性的聚亚安脂人造橡胶(Desmopan 786)制成,可安装在雷莫(LEMO)插头和插座的尾盖上。护套共有九种不同的颜色,与 GRA 绝缘垫圈匹配(见第144页)。

请按以下表格中的产品编号单独订购护套。



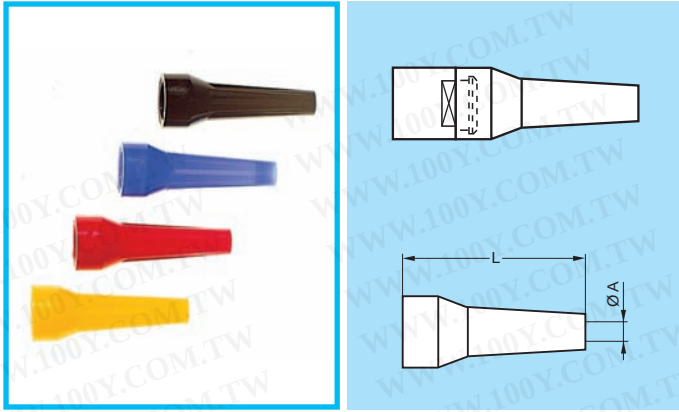
勝特力材料 886-3-5753170
勝特力电子(上海) 86-21-34970699
勝特力电子(深圳) 86-755-83298787
[Http://www.100y.com.tw](http://www.100y.com.tw)

主要特性

- 材料: 聚亚安脂人造橡胶
- 在干燥空气环境下的温度范围: -40°C +80°C

产品编号	尺寸 (mm)				系列	带护套型 尾盖的编号	注
	护套		电缆直径				
	A	L	max.	min.			
GMA.00.012.DG	1.2	22	1.4	1.1	00	FFM.00.130.LC ¹⁾ FFM.00.131.LC ²⁾	¹⁾ 用于单芯连接器 ²⁾ 用于多芯连接器 GMD 为薄护套 (适用于非常柔韧的电缆)
GMA.00.018.DG	1.8	22	2.1	1.8			
GMB.00.025.DG	2.5	22	2.8	2.5			
GMB.00.028.DG	2.8	22	3.1	2.8			
GMB.00.032.DG	3.2	22	3.5	3.2			
GMD.00.025.DG	2.5	22	2.8	2.5			
GMD.00.028.DG	2.8	22	3.1	2.8			
GMD.00.032.DG	3.2	22	3.5	3.2			
GMA.0B.025.DG	2.5	24	2.9	2.5	0B	FFM.0B.130.LC FFM.2B.132.LC ¹⁾	¹⁾ 仅适用于 2B 系列连接器 (配 M 型电缆线夹和 0B 系列的护套)。
GMA.0B.030.DG	3.0	24	3.4	3.0	0S	FFM.0S.130.LC	
GMA.0B.035.DG	3.5	24	3.9	3.5		0E-0K-0L	
GMA.0B.040.DG	4.0	24	4.4	4.0	FFM.0E.130.LC		
GMA.0B.045.DG	4.5	24	5.2	4.5			
GMA.1B.025.DG	2.5	30	2.9	2.5	1B-1D	FFM.1B.130.LC FFM.3B.131.LC ¹⁾	¹⁾ 仅适用于 3B 系列连接器 (配 M 型电缆线夹和 1B 系列的护套)。
GMA.1B.030.DG	3.0	30	3.4	3.0	1S	FFM.1S.130.LC	
GMA.1B.035.DG	3.5	30	3.9	3.5			
GMA.1B.040.DG	4.0	30	4.4	4.0			
GMA.1B.045.DG	4.5	30	4.9	4.5	1E-1K-1L	FFM.1E.130.LC	
GMA.1B.054.DG	5.4	30	6.0	5.4			
GMA.1B.065.DG	6.5	30	7.0	6.5			
GMA.2B.040.DG	4.0	36	4.5	4.0	2B	FFM.2B.130.LC FFM.4K.132.LC ¹⁾	
GMA.2B.045.DG	4.5	36	5.0	4.5	2S	FFM.2S.130.LC	
GMA.2B.050.DG	5.0	36	5.5	5.0			
GMA.2B.060.DG	6.0	36	6.5	6.0	2E-2K-2L	FFM.2E.130.LC	
GMA.2B.070.DG	7.0	36	7.7	7.0	2C-2G	FFM.2C.130.LC	
GMA.2B.080.DG	7.8	36	8.8	7.8			
GMA.3B.050.DG	4.5	42	5.2	4.5	3S	FFM.3S.130.LC	
GMA.3B.060.DG	6.0	42	6.9	6.0	3B	FFM.3B.130.LC	
GMA.3B.070.DG	7.0	42	7.9	7.0	3E-3K	FFM.3E.130.LC	
GMA.3B.080.DG	8.0	42	8.9	8.0			
GMA.3B.090.DG	9.0	42	10.0	9.0	4S	FFM.4S.130.LC	
GMA.4B.080.DG	8.0	60	9.0	8.0	4S	FFM.4S.130.LC	
GMA.4B.010.DG	10.0	60	10.9	10.0	4B	FFM.4B.130.LC	
GMA.4B.011.DG	11.0	60	11.9	11.0			
GMA.4B.012.DG	12.0	60	13.0	12.0	4E-4K	FFM.4E.130.LC	
GMA.4B.013.DG	13.5	60	14.5	13.5			

注: 型号的最后一个字母“G”表示护套的颜色为灰色。若需要定其它颜色的护套, 见第 142 页表, 用相应颜色的字母代替“G”即可。
 详细信息参阅每一系列的说明: B 系列在第 54 页, K 系列在第 54 页, S 系列在第 107 页, E 系列在第 107 页。



GMA 护套(硅橡胶)

为满足高温或要求蒸汽杀菌的使用要求，雷莫 (LEMO) 设计了耐高温的护套。

此类护套的区别在于选用了同别的护套不同的材料。其使用了人造硅橡胶，能在很大的温度范围内保持很好的柔韧性。九种颜色可供选择。

请按以下表格中的产品编号单独订购护套。

勝特力材料 886-3-5753170
勝特力电子(上海) 86-21-34970699
勝特力电子(深圳) 86-755-83298787
[Http://www.100y.com.tw](http://www.100y.com.tw)

主要特性

- 材料：人造硅橡胶 VMQ
- 在干燥空气环境下的温度范围：-60°C +200°C
- 在蒸汽环境下的温度范围：+140°C

产品编号	尺寸 (mm)				系列	带护套型 尾盖的编号	注
	护套		电缆直径				
	A	L	max.	min.			
GMA.0B.025.RG	2.5	27	2.9	2.5	0B	FFM.0B.130.LC FFM.2B.132.LC 1)	1) 仅适用于 2B 系列连接器 (配 M 型电缆线夹和 0B 系列的护套) 。
GMA.0B.030.RG	3.0	27	3.4	3.0			
GMA.0B.035.RG	3.5	27	3.9	3.5	0S	FFM.0S.130.LC	
GMA.0B.040.RG	4.0	27	4.4	4.0	0E-0K-0L	FFM.0E.130.LC	
GMA.0B.045.RG	4.5	27	5.2	4.5			
GMA.1B.025.RG	2.5	34	2.9	2.5	1B-1D	FFM.1B.130.LC FFM.3B.131.LC 1)	1) 仅适用于 3B 系列连接器 (配 M 型电缆线夹和 1B 系列的护套) 。
GMA.1B.030.RG	3.0	34	3.4	3.0			
GMA.1B.035.RG	3.5	34	3.9	3.5	1S	FFM.1S.130.LC	
GMA.1B.040.RG	4.0	34	4.4	4.0			
GMA.1B.045.RG	4.5	34	5.0	4.5			
GMA.1B.051.RG	5.1	34	5.6	5.1	1E-1K-1L	FFM.1E.130.LC	
GMA.1B.057.RG	5.7	34	6.2	5.7			
GMA.1B.063.RG	6.3	34	7.0	6.3			
GMA.2B.040.RG	4.0	41	4.4	4.0	2B	FFM.2B.130.LC FFM.4B.132.LC 1)	1) 仅适用于 4B 系列连接器 (配 M 型电缆线夹和 2B 系列的护套) 。
GMA.2B.045.RG	4.5	41	5.0	4.5	2S	FFM.2S.130.LC	
GMA.2B.051.RG	5.1	41	5.6	5.1			
GMA.2B.057.RG	5.7	41	6.2	5.7	2E-2K-2L	FFM.2E.130.LC	
GMA.2B.063.RG	6.3	41	7.0	6.3			
GMA.2B.071.RG	7.1	41	7.9	7.1	2C-2G	FFM.2C.130.LC	
GMA.2B.080.RG	8.0	41	9.0	8.0			

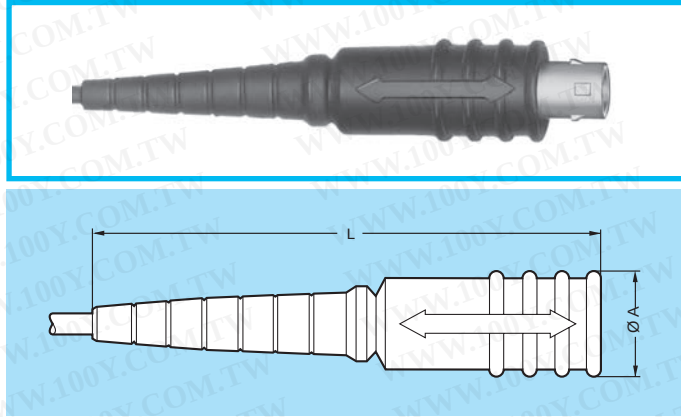
注：型号的最后一个字母“G”表示护套的颜色为灰色。若需要定其它颜色的护套，见第 142 页表，用相应颜色的字母代替“G”即可。
 详细信息参阅每一系列的说明：B 系列在第 54 页，K 系列在第 54 页，S 系列在第 107 页，E 系列在第 107 页。

注：颜料应该是在高温下仍能保持其稳定性，由于受新环保规则的限制，某些新型颜料与以往的护套颜色在深浅上会有所不同。所选用的颜色解决方案是最好的折中方案。

编号	颜色	编号	颜色
A	蓝色	N	黑色
B	白色	R	红色
G	灰色	S	橙色
J	黄色	V	绿色
M	棕色		

GM 整体式护套，用于插头和插座

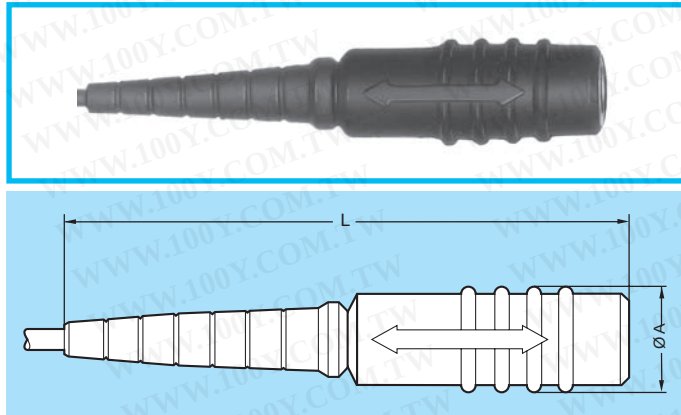
整体式护套，型号 GMF 用于插头、GMP 用于插座，为避免机械磨损提供了最佳保护，按 IEC60529 标准，在连接器插合时保护等级达到 IP65。此类护套很容易滑过连接器的外壳，只需轻轻推压护套尾盖部位即可定位。特别设计的护套能使插头的插拔自锁结构工作自如。



GMF 直式插头护套

产品编号	系列	尺寸 (mm)			
		护套		电缆直径	
		A	L	max.	min.
GMF.0B.035.060EN	0S-0B	11.0	60.5	3.5	1.0
GMF.1B.062.072EN	1S-1B	16.0	72.0	6.2	2.5
GMF.2B.082.095EN	2S-2B	22.0	95.0	8.2	5.0

- 材料：人造橡胶，黑色
- 工作温度：-30°C 至 +120°C



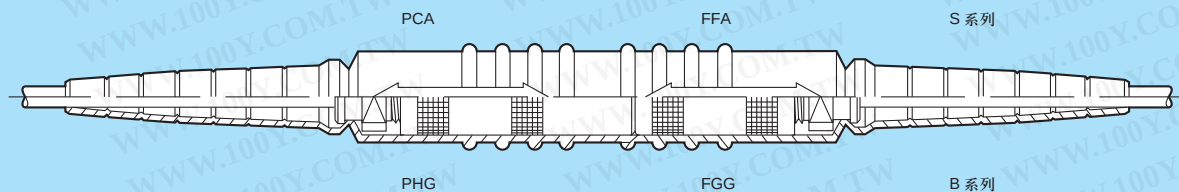
GMP 浮动式插座护套

产品编号	系列	尺寸 (mm)			
		护套		电缆直径	
		A	L	max.	min.
GMP.0B.035.069EN	0S-0B	11.0	69.0	3.5	1.0
GMP.1B.062.079EN	1S-1B	16.0	80.0	6.2	2.5
GMP.2B.082.102EN	2S-2B	21.0	102.5	8.2	5.0

- 材料：人造橡胶，黑色
- 工作温度：-30°C 至 +120°C

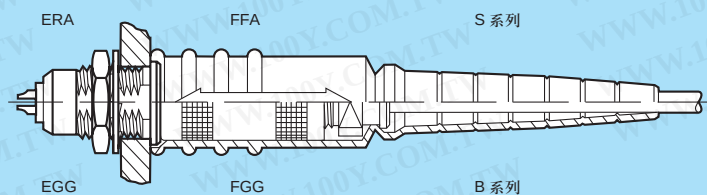
- 整体式护套应该整个地装在插头或浮动式插座上（尾盖为能带护套型）。
- 典型应用如下所示。
- 根据电缆直径的不同，整体式护套可切成不同的长度

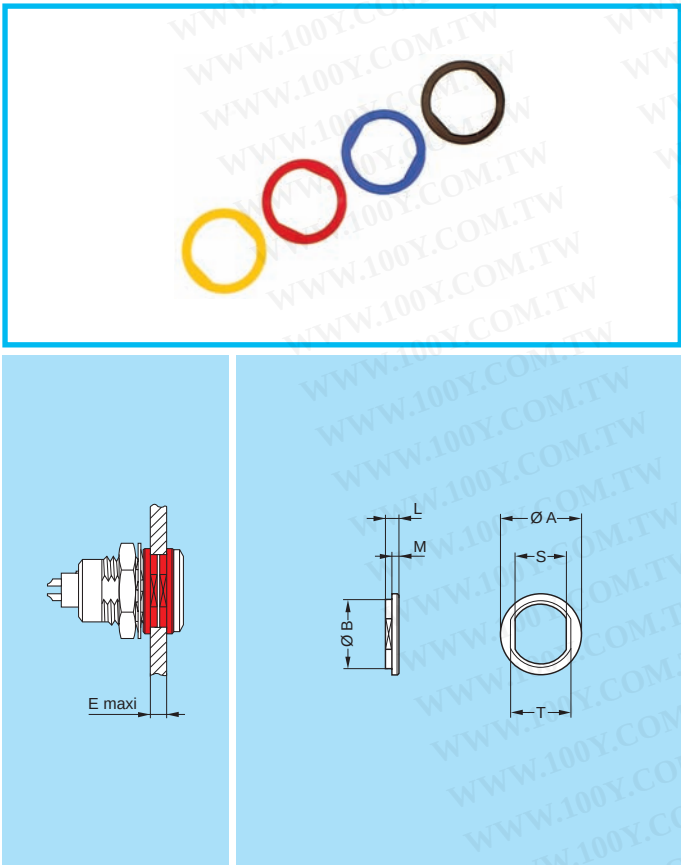
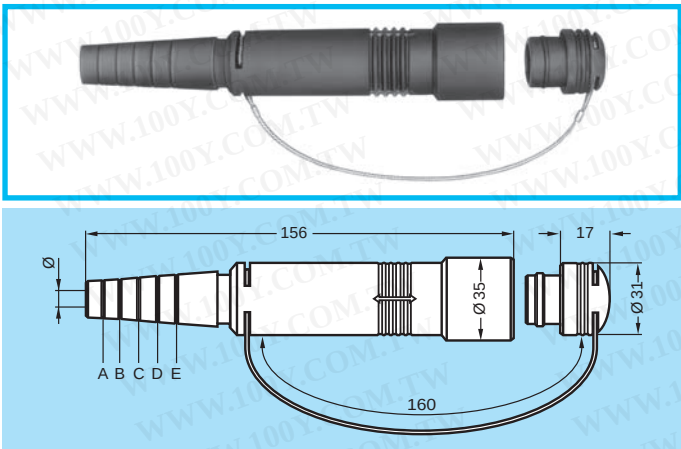
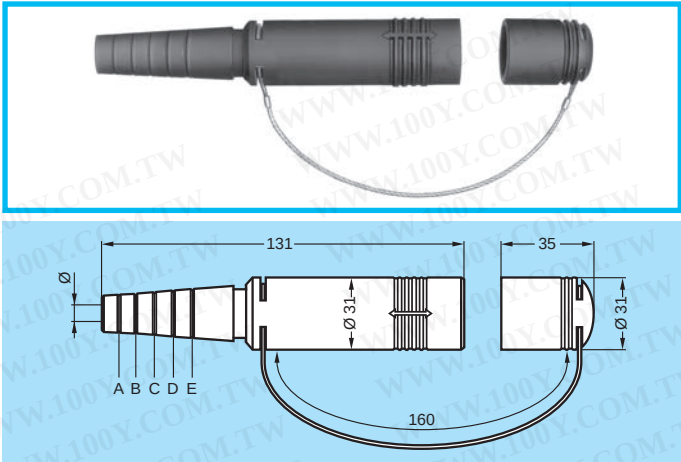
插头— 浮动式插座



插头— 固定式插座

仅当固定式插座采用前面板安装时，才能达到最佳保护效果。





- 材料：聚酰胺
- 最高工作温度：90℃

勝特力材料 886-3-5753170
勝特力电子(上海) 86-21-34970699
勝特力电子(深圳) 86-755-83298787
[Http://www.100y.com.tw](http://www.100y.com.tw)

GMF 带密封盖的插头护套

产品编号	系列	适用型号	断切位	容许的直径 (mm)	
				min.	max.
GMF.4K.080.EANZ	4E	FFA	-	8.0	8.9
			A	9.0	9.9
			B	10.0	11.4
	4K	FGG	C	11.5	12.9
			D	13.0	14.9
			E	15.0	16.5

- 材料：黑色三元乙丙橡胶 (EPDM)

GMP 带密封盖的浮动式插座护套

产品编号	系列	适用型号	断切位	容许的直径 (mm)	
				min.	max.
GMP.4K.080.EANZ	4E	PCA	-	8.0	8.9
			A	9.0	9.9
			B	10.0	11.4
	4K	PHG	C	11.5	12.9
			D	13.0	14.9
			E	15.0	16.5

- 材料：黑色三元乙丙橡胶 (EPDM)

GRA 绝缘垫圈

安装在面板上的插头或插座可加装绝缘垫圈。绝缘垫圈有九种颜色，配上护套的颜色，可自行对颜色编码。

产品编号	系列	尺寸 (mm)						
		A	B	E	L	M	S	T
GRA.00.269.GG	00	10.0	8.8	4.5	1.8	1.0	6.4	8.0
GRA.0S.269.GG	0S-0B	12.0	10.8	6.0	1.8	1.0	8.3	9.9
GRA.1S.269.GG	1S-1B	16.0	13.8	6.5	1.8	1.0	10.6	12.2
GRA.2S.269.GG	2S-2B	21.1	17.9	7.3	2.3	1.3	13.6	16.2
GRA.3S.269.GG	3S-3B	25.0	21.8	10.3	2.2	1.2	16.7	20.2
GRA.4S.269.GG	4S-4B	31.9	28.7	10.5	2.5	1.5	23.6	27.1

注：5B 系列的绝缘垫圈可按要求提供。

注意：此类绝缘垫圈可用于平面间距尺寸 S1 等于垫圈尺寸 S 的固定式和浮动式插座。

编号	颜色	编号	颜色
A	蓝色	N	黑色
B	白色	R	红色
G	灰色	S	橙色
J	黄色	V	绿色
M	棕色		

注：型号的最后字母“G”表示绝缘垫圈的颜色为灰色。若需要定其它颜色的绝缘垫圈，参考上表，用相应颜色的字母代替“G”即可。面板开口尺寸，请参阅第 153 页“面板开口尺寸”章节。

GRC 双孔垫圈

双孔垫圈的设计是为了使固定式插座和插头能更容易地安装在钻孔面板上，共有九种颜色选择，配上护套的颜色，可进行颜色编码。

产品编号	系列	尺寸 (mm)							
		B	E	H	L	M	N	R	S
GRC.0S.260.HG	0S-0B	10.9	5	14	2.5	1.5	26.5	12.5	8.3
GRC.1B.260.HG	1S-1B	13.9	5	20	3.3	1.8	34.5	14.5	10.6

注意：此类绝缘垫圈可用于平面间距尺寸 S1 等于垫圈尺寸 S 的固定式和浮动式插座。

编号	颜色	编号	颜色
A	蓝色	N	黑色
B	白色	R	红色
G	灰色	S	橙色
J	黄色	V	绿色
M	棕色		

注：型号的最后一个字母“G”表示绝缘垫圈的颜色为灰色。若需要定其它颜色的绝缘垫圈，参考上表，用相应颜色的字母代替“G”即可。
 面板开口尺寸，请参阅第 153 页“面板开口尺寸”章节。

- 材料：聚酰胺
- 最高工作温度：90°C

GCA 接地垫圈

产品编号	系列	尺寸 (mm)			
		A	B	L	N
GCA.00.255.LT	00	9.5	7.1	0.4	18.2
GCA.0S.255.LT	0S-0B	13.0	9.1	0.4	22.0
GCA.0E.255.LT	0E-0K	17.0	14.1	0.5	27.5
GCA.1S.255.LT	1S-1B	17.0	12.2	0.5	27.5
GCA.1E.255.LT	1E-1K	20.0	16.2	0.5	32.0
GCA.2S.255.LT	2S-2B	20.0	15.2	0.5	32.0
GCA.2E.255.LT	2E-2K	25.0	20.2	0.5	39.0
GCA.3S.255.LT	3S-3B	25.0	18.2	0.5	39.0
GCA.4S.255.LT	4S-4B	35.0	25.6	0.6	50.0
GCA.4E.255.LT	4E-4K	35.0	30.6	0.6	50.0
GCA.5S.255.LT	5S-5B	42.0	35.1	0.3	57.5

- 材料：黄铜镀铜锡锌 (2 μm)

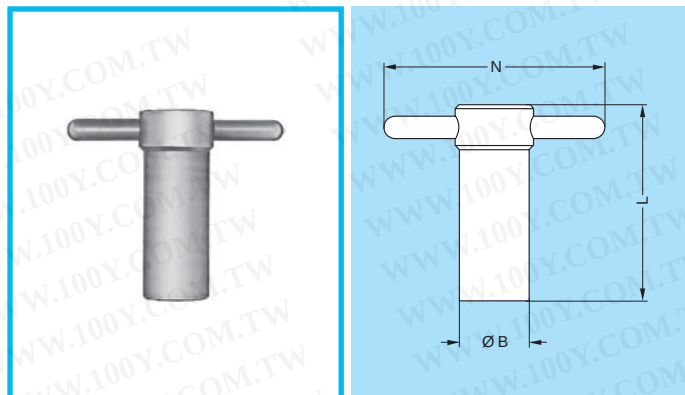
GSC 通线器，带线夹

产品编号	尺寸 (mm)								
	A	B	e	E	L	M	S1	S2	S3
GSC.00.290.CD●●	6.5	8.1	M5x0.5	1.5	16	4.0	5	6	7
GSC.1S.290.ND●●	12.0	12.5	M9x0.6	5.0	26	7.5	11	9	11
GSC.3S.290.ND●●	17.0	19.5	M15x1.0	8.1	30	12.0	-	14	17

注：●● = B 系列电缆线夹直径。电缆直径见第 52 页。
 电缆线夹既可夹带屏蔽的电缆又可夹不带屏蔽的电缆。如需可以带护套的尾盖，在连接器型号后加字母“Z”。

工具

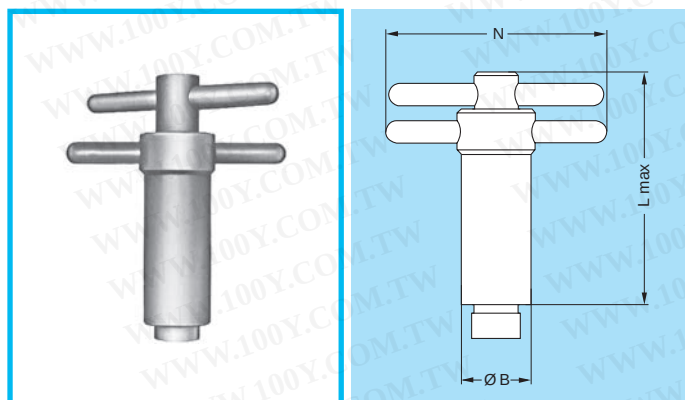
DCG 扳手，用于六角螺母



产品编号	尺寸 (mm)			对应螺母的产品编号
	B	L	N	
DCG.91.149.0TN	14	40	50	GEA.00.240.LN
DCG.91.161.1TN	16	45	52	GEA.0S.240.LN
DCG.91.201.4TN	20	52	65	GEA.1S.240.LN
DCG.91.231.7TN	23	62	68	GEA.2S.240.LN
DCG.91.282.2TN	28	76	73	GEA.3S.240.LN

● 材料：黑钢

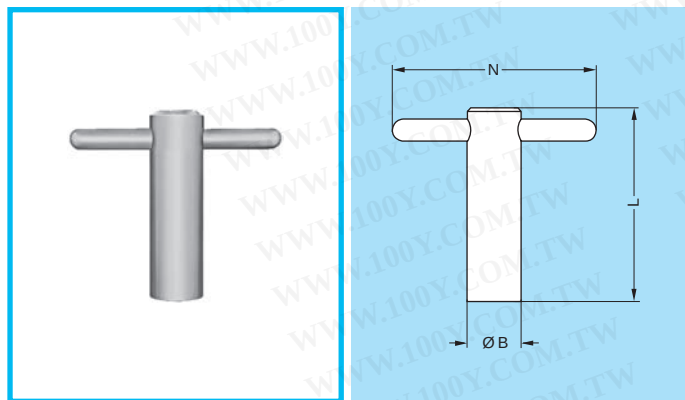
DCA 扳手，用于六角螺母，能定位螺纹带平面的插座



产品编号	尺寸 (mm)			对应螺母的产品编号
	B	L	N	
DCA.91.149.0TN	14	65	50	GEA.00.240.LN
DCA.91.161.1TN	16	73	52	GEA.0S.240.LN
DCA.91.201.4TN	20	85	65	GEA.1S.240.LN
DCA.91.231.7TN	23	100	68	GEA.2S.240.LN
DCA.91.282.2TN	28	120	73	GEA.3S.240.LN

● 材料：黑钢

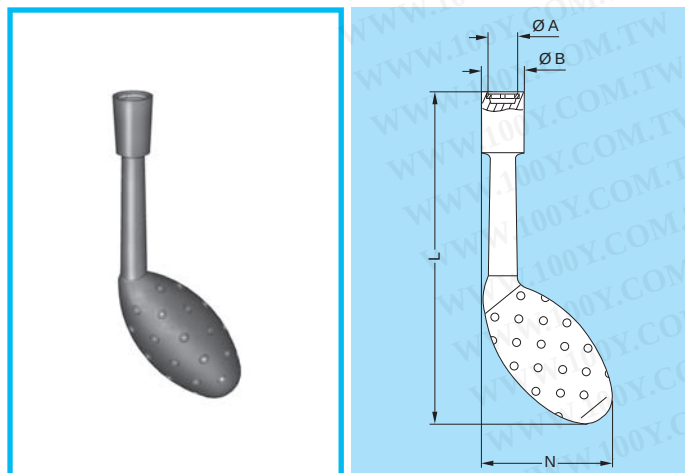
DCB 扳手，用于圆螺母



产品编号	尺寸 (mm)			对应螺母的产品编号
	B	L	N	
DCB.91.119.0TN	11	40	50	GEB.00.240.LN
DCB.91.131.1TN	13	45	50	GEB.0S.240.LN
DCB.91.161.4TN	16	52	65	GEB.1S.240.LN
DCB.91.201.8TN	20	62	65	GEB.2S.240.LN
DCB.91.242.2TN	24	76	70	GEB.3S.240.LN

● 材料：黑钢

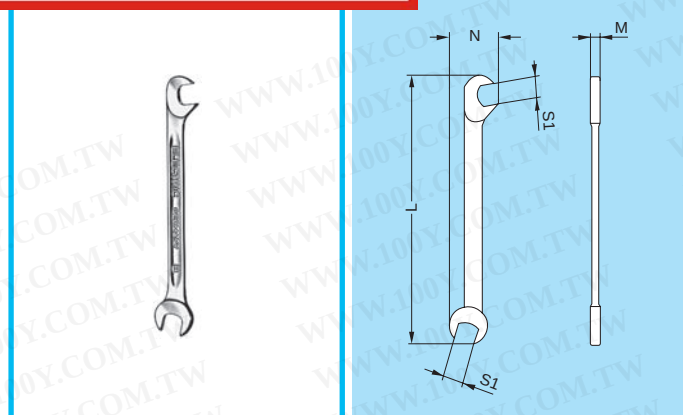
DCH 扳手，用于圆锥螺母



产品编号	尺寸 (mm)				对应螺母的产品编号
	A	B	L	N	
DCH.91.101.PN	10.1	12.8	124	48.3	GEC.00.240.LC
DCH.91.121.PN	12.1	14.8	124	49.3	GEC.0S.240.LC
DCH.91.161.PN	16.1	21.0	124	51.9	GEC.1S.240.LC
DCH.91.201.PN	20.1	22.8	129	53.5	GEC.2S.240.LC

● 材料：深灰色聚亚安脂

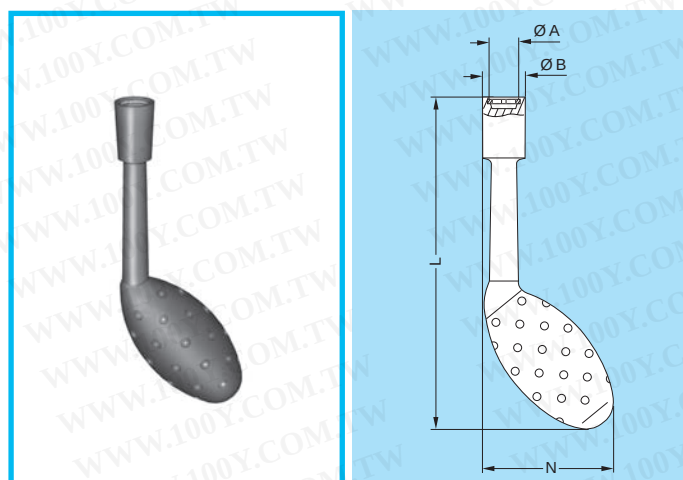
DCP 平扳手，用于尾盖



产品编号	尺寸 (mm)			
	L	M	N	S1
DCP.99.040.TC	70	0.95	10.5	4.0
DCP.99.045.TC	70	2.00	10.5	4.5
DCP.99.050.TC	78	2.00	12.6	5.0
DCP.99.055.TC	78	2.00	12.6	5.5
DCP.99.060.TC	78	2.00	12.6	6.0

- 材料：镀铬钢

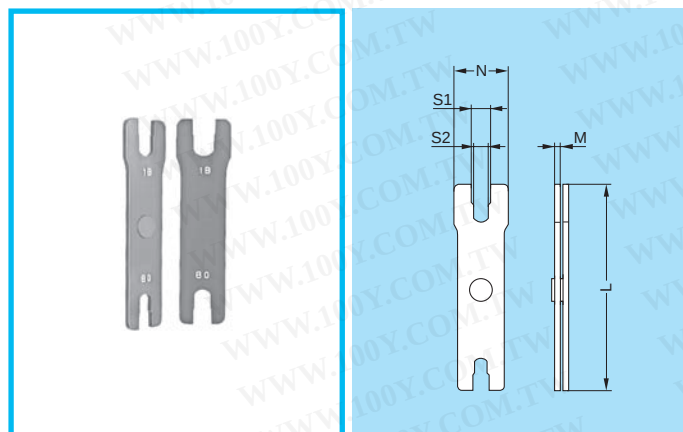
DCH 扳手，用于开槽螺母



产品编号	尺寸 (mm)				对应螺母的产品编号
	A	B	L	N	
DCH.91.101.PA	10.1	12.8	124	48.3	GEG.00.240.LC
DCH.91.121.PA	12.1	14.8	124	49.3	GEG.0S.240.LC
DCH.91.181.PA	18.1	22.8	129	53.1	GEG.0E.240.LC
DCH.91.161.PA	16.1	21.0	124	51.2	GEG.1S.240.LC
DCH.91.201.PA	20.1	22.8	129	53.5	GEG.1E.240.LC
DCH.91.141.PA	14.1	18.6	124	51.2	GEG.1S.242.LC
DCH.91.201.PA	20.1	22.8	129	53.5	GEG.2S.240.LC
DCH.91.241.PA	24.1	30.8	134	52.6	GEG.2S.241.LC
DCH.91.251.PA	25.1	32.8	134	55.5	GEG.2E.240.LC

- 材料：蓝色聚亚安脂

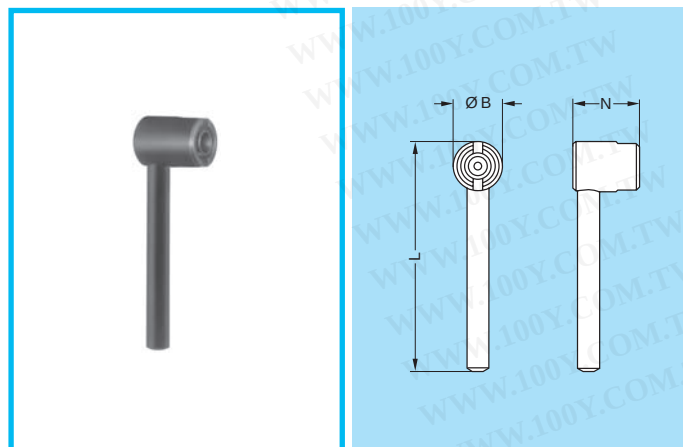
DCP 平扳手套装，用于尾盖



产品编号	系列	尺寸 (mm)				
		L	M	N	S1	S2
DCP.91.001.TN	0B	95	2.5	21	8.1	7.1
	1B	95	2.5	25	10.1	9.1
DCP.91.023.TN	2B-2K	115	3.0	30	13.1	12.1
	3B-3K	115	3.0	35	15.1	14.1
DCP.91.045.TN	4B	130	3.5	40	21.2	20.2
	5B	130	3.5	45	31.2	30.2

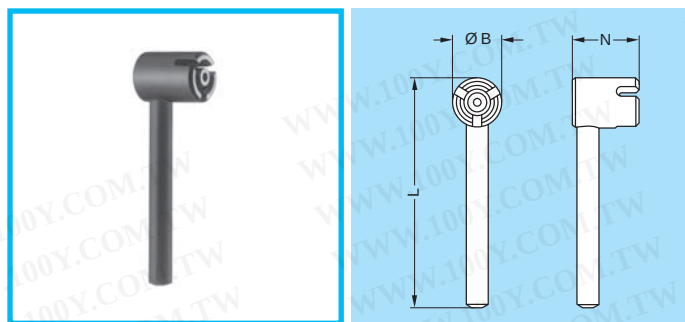
- 材料：黑钢

DCL 扳手，用于组装带两个锁扣的插头



产品编号	系列	尺寸 (mm)		
		B	L	N
DCL.91.105.0TK	00	10	45	13.5
DCL.91.127.0TK	0S	12	47	17.0
DCL.91.149.0TK	1S	14	52	19.0

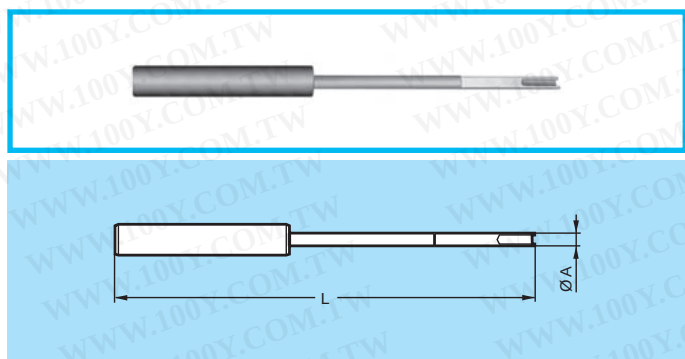
- 材料：黑钢



DCN 扳手，用于组装带三个锁扣的插头

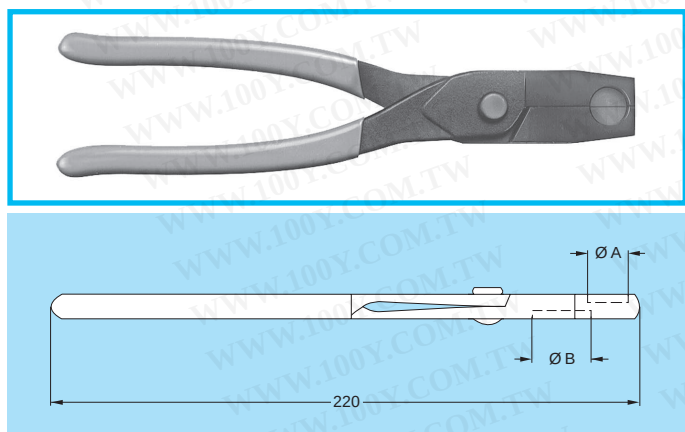
产品编号	系列	尺寸 (mm)		
		B	L	N
DCN.91.905.0TK	00	9	42	12
DCN.91.125.0TK	0S	12	47	17
DCN.91.149.0TK	1S	14	53	19
DCN.91.171.2TK	2S-2C	17	63	20
DCN.91.201.5TK	3S	20	74	22

● 材料：黑钢



DCL 组装工具，用于 FVB.00.303.NLA 插头

产品编号	系列	尺寸 (mm)	
		A	L
DCL.91.516.5TK	00	5	165

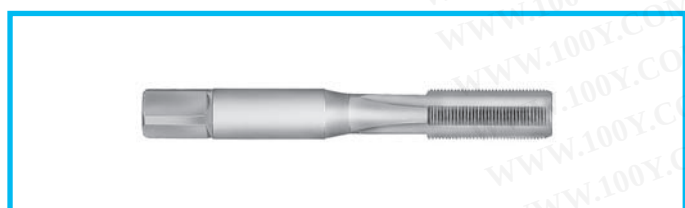
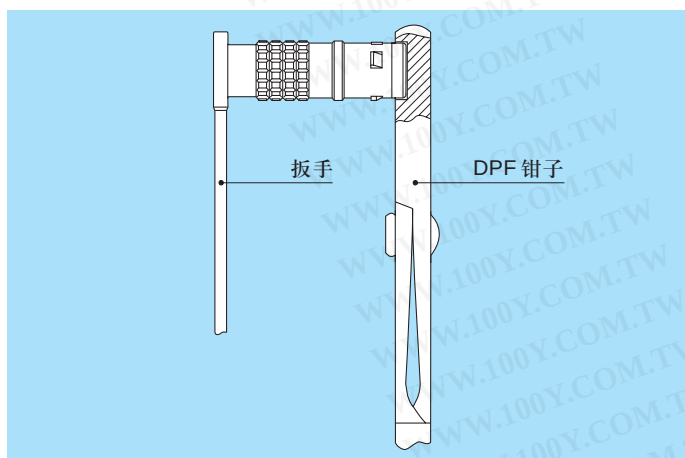


DPF 钳子，用于组装插头 (K、E 和 L 系列)

产品编号	系列	尺寸 (mm)	
		A	B
DPF.91.001.TA	0E-0K-0L	10	-
	1E-1K-1L	-	12
DPF.91.023.TA	2E-2K-2L	15	-
	3E-3K	-	18

应用举例

用平扳手拧螺母时，插头必须用钳子固定住。



DTA 螺纹模

产品编号	系列	螺纹
DTA.99.700.5Z	00	M7 x 0.5
DTA.99.900.6Z	0S-0B	M9 x 0.6

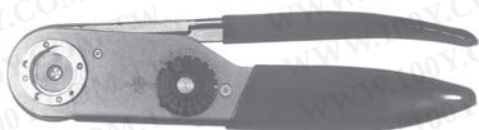
电气针芯压接工具

勝特力材料 886-3-5753170
勝特力电子(上海) 86-21-34970699
勝特力电子(深圳) 86-755-83298787
[Http://www.100y.com.tw](http://www.100y.com.tw)

图 1



图 2



手动压接工具

供应商	产品编号		
	针芯直径 0.5-0.7 0.9-1.3 (图1)	针芯直径 1.6-2.0 (图2)	针芯直径 3.0-4.0 (图2)
LEMO	DPC.91.701.V ¹⁾	DPC.91.101.A ²⁾	DPC.91.102.V
DANIELS	MH860 ¹⁾	AF8 ²⁾	M300BT
ASTRO	616336 ¹⁾	615708 ²⁾	-

¹⁾ 按 MIL-C-22520/7-01 标准

²⁾ 按 MIL-C-22520/1-01 标准



气动压接工具

供应商	产品编号
LEMO	DPC.91.701.C
BALMAR	85230
BUCHANAN	621101

按 MIL-C-22520/7-01 标准
用于直径 0.5 - 0.7 - 0.9 - 1.3 mm 的
雷莫 (LEMO) 针芯



公针定位器



母针定位器

此类定位器既适用于手动压接工具也适用于气动压接工具，符合 MIL-C-22520/7-01 标准

图 1

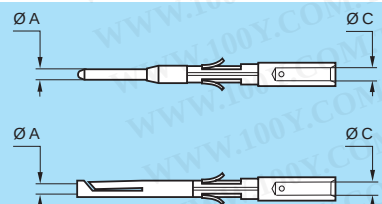
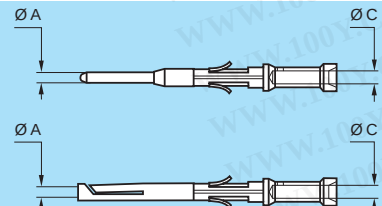


图 2



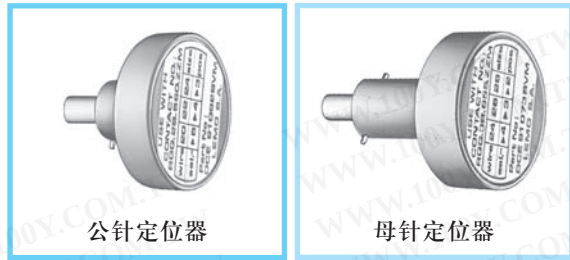
注：绞织芯线的芯数和直径可以有很多种组合，最后都可用芯线线规 AWG 表示。有些截面积不够大的芯线，不能按照 MIL-C-22520/1-01 或 /7-01 标准压接。我们的技术部门会针对您的具体情况，为您推荐适合您应用要求的解决方案。

DCE 定位器，用于直径 0.5 - 0.7 - 0.9 - 1.3 mm 的压接针芯

		连接器 + 针芯				定位器编号	
		类型	ØA	ØC	图 芯线线规 AWG	公针定位器	母针定位器
00	302	0.5	0.45	1	28-30-32	DCE.91.050.0VC	DCE.91.050.0VM
	303						
	304						
0B 0K 0S	302 ¹⁾	0.9	1.10	1	20-22-24	DCE.91.090.BVC	DCE.91.090.BVM
	303			2	22-24-26		
				2	28-30-32		
	304 ¹⁾	0.7	0.80	1	22-24-26	DCE.91.070.BVC	DCE.91.070.BVM
	305			2	28-30-32		
	306/307 309	0.5	0.45	1	28-30-32	DCE.91.050.BVC	-
1B 1K 1S	302 ¹⁾	1.3	1.40	1	18-20	DCE.91.131.BVC	DCE.91.131.BVM
	303			2	20-22-24		
	304 ¹⁾	0.9	1.10	1	20-22-24	DCE.91.091.BVC	DCE.91.091.BVM
	305			2	22-24-26		
	306/307 308	0.7	0.80	1	22-24-26	DCE.91.071.BVC	DCE.91.071.BVM
				2	28-30-32		
2B 2K 2S	310/314 316	0.5	0.45	1	28-30-32	DCE.91.051.BVC	-
	304/305	1.3	1.40	1	18-20	DCE.91.132.BVC	DCE.91.132.BVM
	306 ¹⁾			2	20-22-24		
	307			2	22-24-26		
	308/310	0.9	1.10	1	20-22-24	DCE.91.092.BVC	DCE.91.092.BVM
				2	22-24-26		
		0.7	0.80	2	28-30-32	DCE.91.092.AVC	DCE.91.092.AVM
				2	28-30-32		
	312/314 316/318 319	0.7	0.80	1	22-24-26	DCE.91.072.BVC	DCE.91.072.BVM
				2	28-30-32		

注：选择连接器请见第 51 页，选择针芯请见第 131 页。

注：¹⁾ S 系列只有这些型号可选。

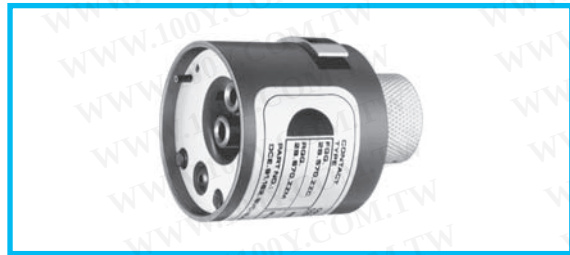


此类定位器既适用于手动压接工具也适用于气动压接工具，符合 MIL-C-22520/7-01 标准

勝特力材料 886-3-5753170
勝特力电子(上海) 86-21-34970699
勝特力电子(深圳) 86-755-83298787
[Http://www.100y.com.tw](http://www.100y.com.tw)

DCE 定位器，用于直径 0.5 - 0.7 - 0.9 - 1.3 mm 的压接针芯

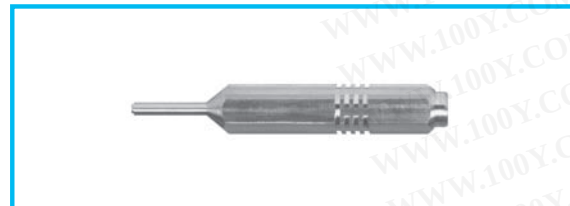
	连接器 + 针芯					产品编号	
	类型	ØA	ØC	图	芯线线规 AWG	公针定位器	母针定位器
3B 3K	308/309	1.3	1.40	1	18-20	DCE.91.133.BVC	DCE.91.133.BVM
	310	1.3	1.10	2	20-22-24		
	312/314	0.9	1.10	1	20-22-24	DCE.91.093.BVC	DCE.91.093.BVM
	316/318	0.9	0.80	2	22-24-26		
	320/322	0.7	0.80	1	22-24-26	DCE.91.073.BVC	DCE.91.073.BVM
	324/326 330	0.7	0.45	2	28-30-32		
4B 4K	312	1.3	1.40	1	18-20	DCE.91.134.BVC	DCE.91.134.BVM
		1.3	1.10	2	20-22-24		
	316/320	0.9	1.10	1	20-22-24	DCE.91.094.BVC	DCE.91.094.BVM
	324/330	0.9	0.80	2	22-24-26		
	340/348	0.7	0.80	1	22-24-26	DCE.91.074.BVC	DCE.91.074.BVM
		0.7	0.45	2	28-30-32		
5B 5K	330/340 348	1.3	1.40	1	18-20	DCE.91.135.BVC	DCE.91.135.BVM
		0.9	1.10	1	20-22-24		
	350/354 364	0.9	0.80	2	22-24-26	DCE.91.095.BVC	DCE.91.095.BVM
		0.9	0.80	2	22-24-26		



注：此压接转筒可与手动压接工具，符合MIL-C-22520/7-01标准

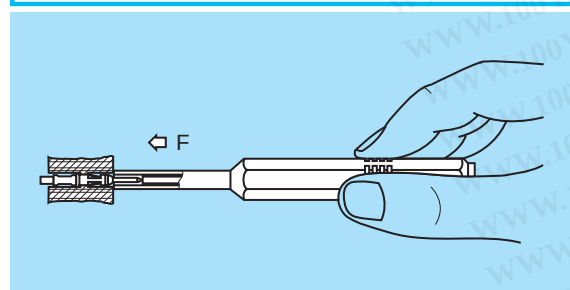
DCE 定位器，用于直径 1.6 - 2.0 - 3.0 - 4.0 mm 的压接针芯

	连接器 + 针芯					定位器
	类型	ØA	ØC	图	芯线线规 AWG	产品编号
2B 2K	302	2.0	2.4	1	12-14-16	DCE.91.202.BVCM
		2.0	1.9	2	14-16-18	
	303	1.6	1.9	1	14-16-18	DCE.91.162.BVCM
		1.6	1.4	2	18-20-22	
3B 3K	302	3.0	2.9	1	10-12-14	DCE.91.303.BVCM
	303/304	2.0	2.4	1	12-14-16	DCE.91.203.BVCM
	309	2.0	1.9	2	14-16-18	
	305/306	1.6	1.9	1	14-16-18	DCE.91.163.BVCM
	307	1.6	1.4	2	18-20-22	
		1.6	1.4	2	18-20-22	
4B 4K	304	3.0	2.9	1	10-12-14	DCE.91.304.BVCM
	306/307	2.0	2.4	1	12-14-16	DCE.91.204.BVCM
		2.0	1.9	2	14-16-18	
	310	1.6	1.9	1	14-16-18	DCE.91.164.BVCM
		1.6	1.4	2	18-20-22	
		1.6	1.4	2	18-20-22	
5B 5K	304	4.0	4.0	1	10-12	DCE.91.405.BVCM
	310	3.0	2.9	1	10-12-14	DCE.91.305.BVCM
	314/316	2.0	2.4	1	12-14-16	DCE.91.205.BVCM
		2.0	1.9	2	14-16-18	
	320	1.6	1.9	1	14-16-18	DCE.91.165.BVCM
		1.6	1.4	2	18-20-22	

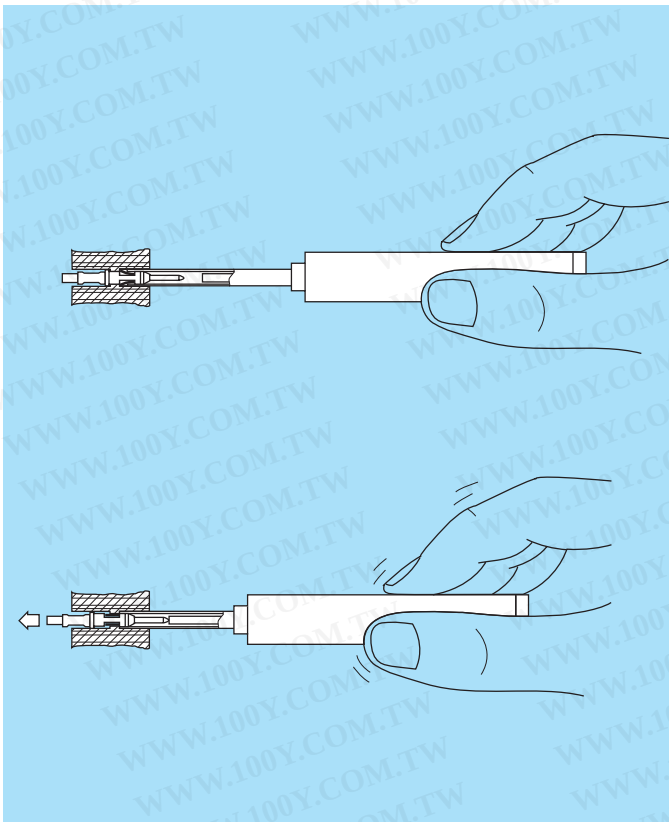


DCK 压接针芯装配检验工具，用于直径 0.5 - 0.7 - 0.9 - 1.3 mm 的压接针芯

针芯 ØA	测试力 (N)	测试工具编号	
		用于公针芯	用于母针芯
0.5	8	DCK.91.050.8LRC	DCK.91.050.8LRM
0.7	14	DCK.91.071.4LRC	DCK.91.071.4LRM
0.9	14	DCK.91.091.4LRC	DCK.91.091.4LRM
1.3	25	DCK.91.132.5LRC	DCK.91.132.5LRM



DCF 全自动退针器，用于压接针芯(不适用于FA●和FW●)



	连接器		产品编号
	类型	针芯 Ø A	用于公针芯和母针芯
00	302/303/304	0.5	DCF.91.050.2LT
0B 0K	302/303	0.9	DCF.91.090.2LT
	304/305	0.7	DCF.91.070.2LT
	306/307/309	0.5	DCF.91.050.2LT
1B 1K	302/303	1.3	DCF.91.131.2LT
	304/305	0.9	DCF.91.090.2LT
	306/307/308	0.7	DCF.91.070.2LT
	310/314/316	0.5	DCF.91.050.2LT
2B 2K	302	2.0	DCF.91.202.2LT ¹⁾
	303	1.6	DCF.91.162.2LT
	304/305/306/307	1.3	DCF.91.131.2LT
	308/310	0.9	DCF.91.090.2LT
	312/314/316/318/319	0.7	DCF.91.070.2LT
3B 3K	302	3.0	DCF.91.303.5LT
	303/304/309	2.0	DCF.91.202.5LT ¹⁾
	305/306/307	1.6	DCF.91.163.5LT
	308/309/310	1.3	DCF.91.133.5LT
	312/314/316/318	0.9	DCF.91.093.5LT
	320/322/324/326/330	0.7	DCF.91.073.5LT
4B 4K	304	3.0	DCF.91.303.5LT
	306/307	2.0	DCF.91.202.5LT ¹⁾
	310	1.6	DCF.91.163.5LT
	312	1.3	DCF.91.133.5LT
	316/320/324/330	0.9	DCF.91.093.5LT
	340/348	0.7	DCF.91.073.5LT
5B 5K	304	4.0	DCF.91.405.5LT
	310	3.0	DCF.91.303.5LT
	314/316	2.0	DCF.91.202.5LT ¹⁾
	320	1.6	DCF.91.163.5LT
	330/340/348	1.3	DCF.91.133.5LT
	350/354/364	0.9	DCF.91.093.5LT

注：¹⁾ 此型号由拇指操作。如有需要可提供S系列。

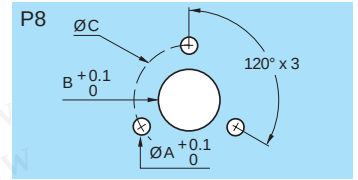
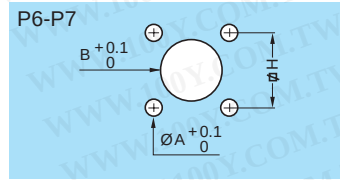
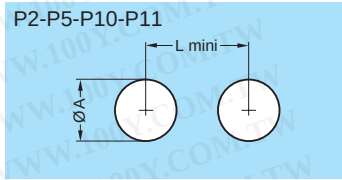
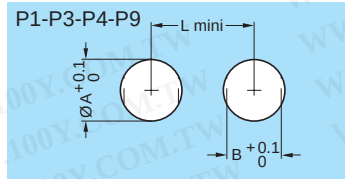
DCF 全自动退针器，用于压接针芯(适用于FA●和FW●)

	针芯 Ø A (mm)	退针器型号
		适用于公针芯和母针芯
0B/0K to 3B/3K	1.6	DCF.92.162.3LT
	1.3	DCF.92.131.3LT
	0.9	DCF.92.090.3LT
	0.7	DCF.92.070.3LT

注：4B/4K和5B/5K系列，用于FA●的退针器，仍然需要确认。

面板开口尺寸

勝特力材料 886-3-5753170
 勝特力电子(上海) 86-21-34970699
 勝特力电子(深圳) 86-755-83298787
[Http://www.100y.com.tw](http://www.100y.com.tw)



B 系列

系列	P1			P2		P3			P4			P5		P6			P8			P9			P10	
	ØA	B	L	ØA	L	ØA	B	L	ØA	B	L	ØA ²⁾	L	ØA	B	H	ØA	B	C	ØA	B	L	ØA	L
00	7.1	6.4	12.5	7.1	11.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	7.1	Ø	12	-	-
0B	9.1	8.3	14.5	9.1	13.5	14.1	12.6	20.1	10.1	9.1	15.0	8.30	10.5	-	-	-	-	-	-	9.1	8.3	15	-	-
1B	12.1	10.6	18.5	-	-	16.1	14.6	22.0	14.1	12.6	21.0	11.17	14.0	-	-	-	-	-	-	12.1	10.6	19	11.1	17
2B	15.1	13.6	22.5	-	-	19.2	17.1	28.0	16.1	15.1	23.0	13.95	18.0	-	-	-	-	-	-	15.1	13.6	23	-	-
3B	18.2	16.6	27.0	-	-	-	-	-	20.2	18.6	29.5	-	-	-	-	-	-	-	-	18.2	16.6	27	-	-
4B	25.2	23.6	36.0	-	-	-	-	-	25.2	23.6	36.1	-	-	-	-	-	-	-	-	25.2	23.6	36	-	-
5B	35.2 ¹⁾	33.6	44.0	-	-	-	-	-	35.2	33.6	47.1	-	-	3.3	35.2	34	2.8	35.2	47	35.2	33.6	47	-	-

注：
¹⁾ 使用锥形垫圈时，圆形开孔直径为 36mm。²⁾ 公差： $+0.02$
 0

开口类型

型号	类型	型号	类型	型号	类型	型号	类型	型号	类型
ECG	P1	ENG	P1	HCG	P3	PFG	P1	YHG	P9
EEG	P1	ENY	P1	HEG	P9	PKG	P1		
EGG	P1	ESG	P1/P2	HGG	P9	R●●	P4		
EFG	P2	EXG	P2/P10	HHG	P9	S●●	P4/P9 ³⁾		
EHG	P1	EYG	P1/P10	HMG	P9	XBG	P2		
EJG	P5	FAG	P1	HNG	P9	XPF	P2		
EKG	P1	FWG	P9	PEG	P1	XRB	P2		

注：³⁾ 1B 系列选用 P9。

螺母安装扭矩

系列	扭矩 (Nm)	
	金属外壳	塑料外壳 ⁴⁾
00	1.0	0.4
0B	2.5	0.4
1B	4.5	0.7
2B	6.0	0.8
3B	9.0	1.0
4B	12.0	5.0
5B	17.0	-

注：⁴⁾ 如果金属外壳配绝缘垫圈，也参照这些数据。

S 系列

系列	P1			P2		P3			P4			P5		P6			P7			P10		P11	
	ØA	B	L	ØA	L	ØA	B	L	ØA	B	L	ØA ²⁾	L	ØA	B	H	ØA	B	H	ØA	L	ØA	L
00	7.1	6.4	12.5	7.1	11.5	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-	-
0S	9.1	8.3	14.5	9.1	13.5	12.1	10.6	20.0	10.1	9.1	15	-	-	-	-	-	-	-	-	-	-	9.1	16
1S	12.1	10.6	18.5	12.1	19.0	14.1	12.6	21.0	12.1	10.6	18	11.92	15.5	3.3	12.1	12.7	2.7	11.1	12.4	11.1	17	12.1	19
2S	15.1	13.6	22.5	15.1	21.5	16.1	14.6	22.0	16.1	15.1	23	-	-	3.3	15.1	15.5	-	-	-	-	-	-	-
3S	18.2	16.6	27.0	18.2	27.0	20.2	18.6	30.0	20.2	18.6	29	-	-	3.3	18.2	18.0	-	-	-	-	-	-	-
4S	25.2	23.6	36.0	25.2	34.0	25.2	23.6	36.0	25.2	23.6	36	-	-	-	-	-	-	-	-	-	-	-	-
5S	35.2 ¹⁾	33.6	44.0	35.2	44.0	35.2	33.6	47.0	35.2	33.6	47	-	-	4.4	35.2	36.8	-	-	-	-	-	-	-
6S	48.3	45.6	58.0	48.3	58.0	48.3	45.6	60.0	48.3	45.6	60	-	-	-	-	-	-	-	-	-	-	-	-

注：
¹⁾ 使用锥形垫圈时，圆形开孔直径为 36mm。²⁾ 公差： $+0.02$
 0

开口类型

型号	类型	型号	类型	型号	类型	型号	类型
EBC	P6	ERA	P1	EWB	P3	PSP	P1
EBD	P6	ERC	P1	FAA	P1/P2 ³⁾	PSS	P1
EBS	P7	ERD	P1	HCP	P3 ⁴⁾	RAD	P1/P2 ⁵⁾
ECP	P1	ERN	P1	HGP	P3	SWH	P4
EEP	P1	ERS	P2	HGW	P11		
EHP	P2/P1	EXP	P2/P10	PSA	P1		

1 N = 0.102 kg

注：³⁾ 6S 系列选用 P2。⁴⁾ 1S 系列只用 ØA。

⁵⁾ 4S 和 5S 系列选用 P2。

螺母安装扭矩

系列	扭矩 (Nm)	
	金属外壳	塑料外壳 ⁶⁾
0S	2.5	0.4
1S	4.5	0.7
2S	6.0	0.8
3S	9.0	1.0
4S	12.0	5.0
5S	17.0	-
6S	22.0	-

注：⁶⁾ 如果金属外壳配绝缘垫圈，也参照这些数据。

K 系列

系列	P1			P6			P7		
	ØA	B	L	ØA	B	H	ØA	B	H
0K	14.1	12.6	20.5	-	-	-	-	-	-
1K	16.1	14.6	22.5	-	-	-	-	-	-
2K	20.2	18.6	29.0	-	-	-	-	-	-
3K	24.2	22.6	35.5	3.5	22.6	20.6	3.5	23.1	23.0
4K	30.2	28.6	43.0	3.5	28.6	27.0	3.5	30.1	29.0
5K	45.2	42.6	57.0	4.5	42.6	38.0	4.5	45.1	44.0

勝特力材料 886-3-5753170
 勝特力电子(上海) 86-21-34970699
 勝特力电子(深圳) 86-755-83298787
[Http://www.100y.com.tw](http://www.100y.com.tw)

开口类型

型号	类型	型号	类型	型号	类型
EBG	P7	EVG	P1	PEG	P1
EDG	P7 ²⁾	FAG	P1	PKG	P1
EEG	P1	FXG	P6	S●●	P1
EGG	P1	HEG	P1		
EHG	P1	HGG	P1		
ENG	P1	PBG	P7 ³⁾		

螺母安装扭矩

系列	扭矩 (Nm)
0K	5
1K	7
2K	9
3K	12
4K	17
5K	22

1 N = 0.102 kg

注: ²⁾ 此型号 B = 18.1 ³⁾ 此型号 B = 19.1

E 系列和 L 系列

系列	P1			P6		
	ØA	B	L	ØA	B	H
0E-0L	14.1	12.6	20.5	-	-	-
1E-1L	16.1	14.6	22.5	-	-	-
2E-2L	20.2	18.6	29.0	2.9	15.1	11.8x20.4
3E	24.2	22.6	35.5	-	-	-
4E	30.2	28.6	43.0	-	-	-
5E	45.2	42.6	57.0	-	-	-
6E	55.3	52.1	68.0	-	-	-

E 系列 开口类型

型号	类型	型号	类型
EBR	P6	HGP	P1
EEP	P1	PSA	P1
EHP	P1	PSP	P1
ERA	P1	SWH	P1
ERB	P1		
ERC	P1		
FAA	P1		

L 系列 开口类型

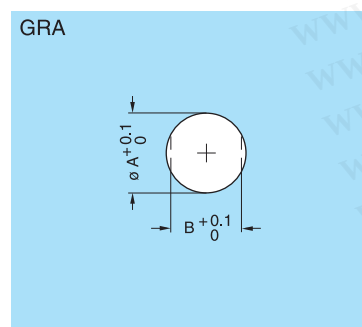
型号	类型
EEG	P1
EGG	P1
FAG	P1
HGG	P1
PKG	P1

螺母安装扭矩

系列	扭矩 (Nm)
0E-0L	5
1E-1L	7
2E-2L	9
3E	12
4E	17
5E	22
6E	27

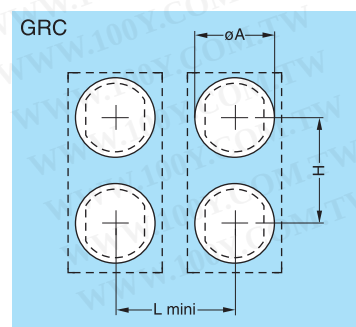
1 N = 0.102 kg

安装绝缘垫圈时的面板开口尺寸 (S-B 系列)



系列	尺寸 (mm)	
	ØA	B
00	8.9	8.1
0S-0B	10.9	10.0
1S-1B	13.9	12.3
2S-2B	18.0	16.3
3S-3B	21.9	20.3
4S-4B	29.1	27.4

安装双孔垫圈时的面板开口尺寸 (S-B 系列)

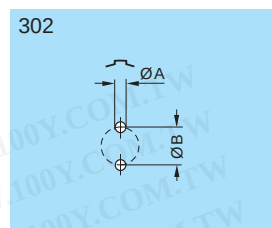


系列	尺寸 (mm)		
	ØA	H	L
0S-0B	11	14	13.5
1S-1B	14	20	17.0

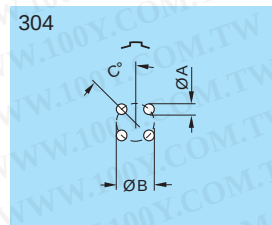
注: 拧紧螺母所需的扭矩, 请参阅第 152 页的表格。

PCB 钻孔参数

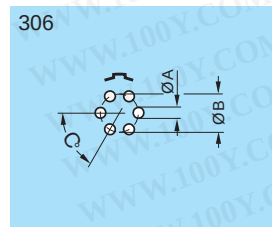
配印制板接直针芯的固定式插座 (B-K 系列) P15



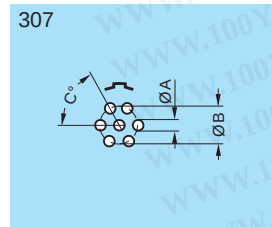
系列	尺寸 (mm)	
	A	B
00	0.6	1.2
0B-0K	0.8	2.2
1B-1K	0.8	2.8
2B-2K	0.8	4.4



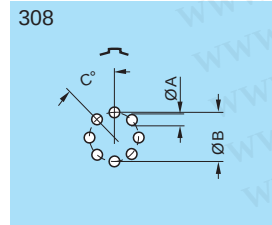
系列	尺寸 (mm)		
	A	B	C
00	0.6	1.6	45°
0B-0K	0.6	2.5	45°
1B-1K	0.8	3.1	45°
2B-2K	0.8	5.0	45°
3B-3K	0.8	6.2	45°



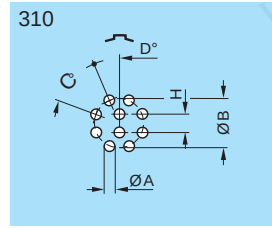
系列	尺寸 (mm)		
	A	B	C
0B-0K	0.6	3.0	60°
1B-1K	0.8	3.7	60°



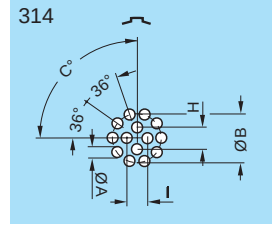
系列	尺寸 (mm)		
	A	B	C
0B-0K	0.6	3.00	60°
1B-1K	0.8	3.70	60°
2B-2K	0.8	5.80	60°
3B-3K	0.8	7.08	60°



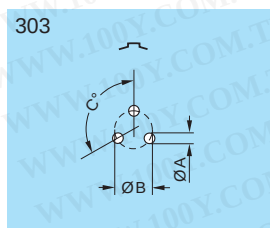
系列	尺寸 (mm)		
	A	B	C
2B-2K	0.8	6.4	45°
3B-3K	0.8	7.5	45°



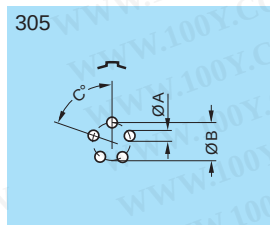
系列	尺寸 (mm)				
	A	B	C	D	H
1B-1K	0.6	3.95	45°	22°30'	1.40
2B-2K	0.8	6.20	45°	22°30'	2.15
3B-3K	0.8	7.90	45°	22°30'	2.80



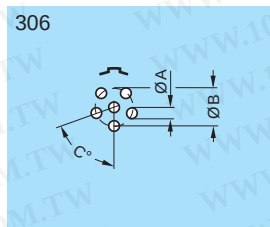
系列	尺寸 (mm)				
	A	B	C	H	I
1B-1K	0.6	4.4	90°	1.90	1.80
2B-2K	0.8	6.5	90°	2.65	2.65
3B-3K	0.8	8.2	90°	3.40	3.40



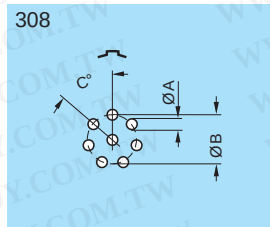
系列	尺寸 (mm)		
	A	B	C
00	0.6	1.35	120°
0B-0K	0.8	2.30	120°
1B-1K	0.8	3.00	120°
2B-2K	0.8	4.60	120°
3B-3K	0.8	5.60	120°



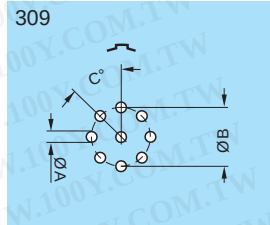
系列	尺寸 (mm)		
	A	B	C
0B-0K	0.6	2.8	72°
1B-1K	0.8	3.4	72°
2B-2K	0.8	5.2	72°
3B-3K	0.8	6.7	72°



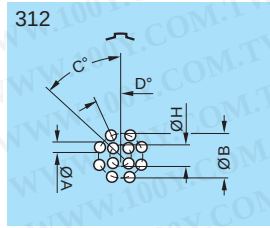
系列	尺寸 (mm)		
	A	B	C
2B-2K	0.8	5.6	72°
3B-3K	0.8	7.1	72°



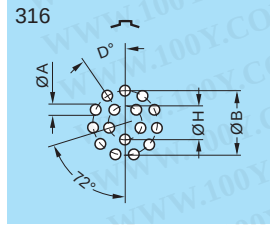
系列	尺寸 (mm)		
	A	B	C
1B-1K	0.8	3.8	51°26'



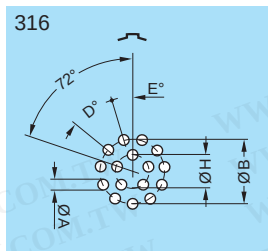
系列	尺寸 (mm)		
	A	B	C
0B-0K	0.6	3.2	45°
3B-3K	0.8	7.5	45°



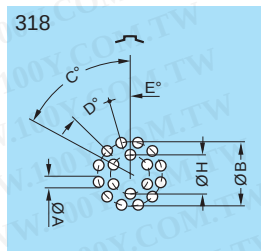
系列	尺寸 (mm)				
	A	B	C	D	H
2B-2K	0.8	6.50	45°	22°30'	2.80
3B-3K	0.8	8.20	45°	22°30'	3.40



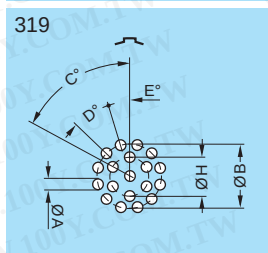
系列	尺寸 (mm)			
	A	B	D	H
1B-1K	0.6	4.4	32°44'	2.00



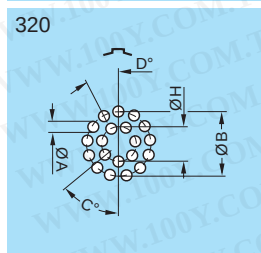
系列	尺寸 (mm)				
	A	B	D	E	H
2B-2K	0.8	6.6	32°44'	16°22'	3.10
3B-3K	0.8	8.4	32°44'	16°22'	3.86
4B-4K	0.6	10.5	32°44'	16°22'	5.00



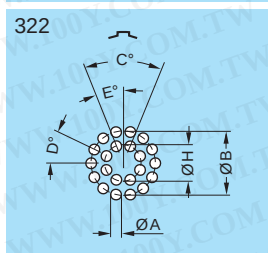
系列	尺寸 (mm)					
	A	B	C	D	E	H
2B-2K	0.8	6.7	60°	30°	15°	3.50
3B-3K	0.8	8.4	60°	30°	15°	4.34



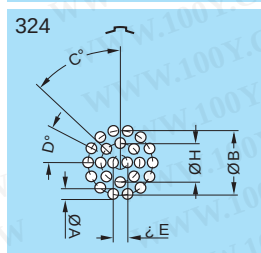
系列	尺寸 (mm)					
	A	B	C	D	E	H
2B-2K	0.8	6.7	60°	30°	15°	3.5



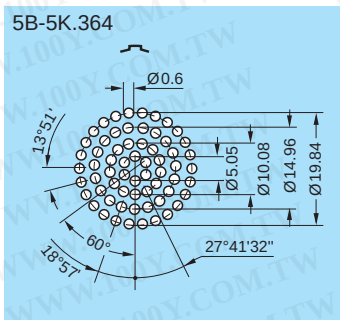
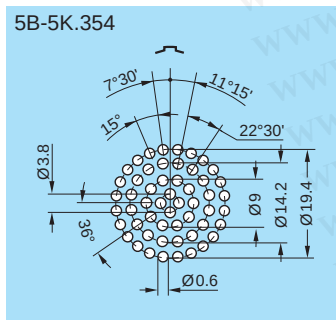
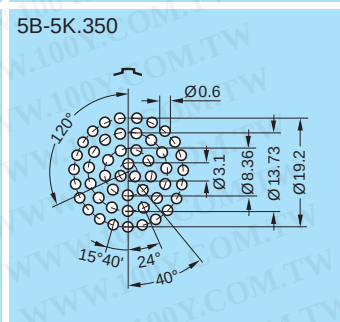
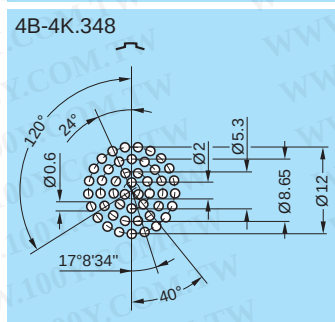
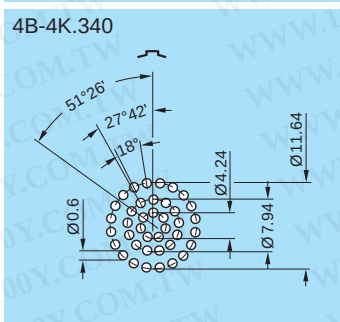
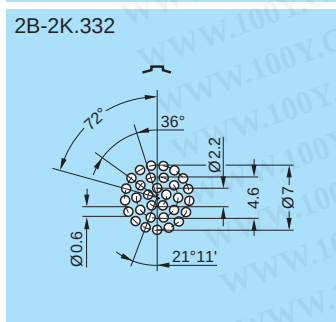
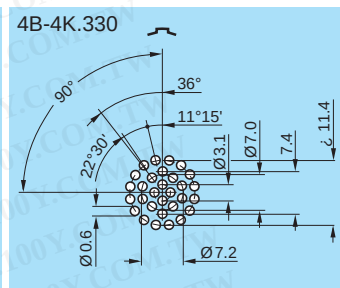
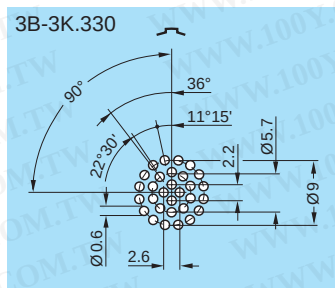
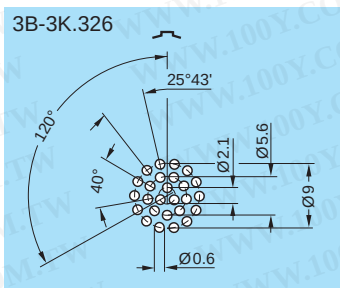
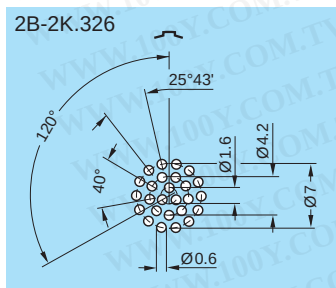
系列	尺寸 (mm)				
	A	B	C	D	H
3B-3K	0.6	8.62	51°26'	27°42'	4.78
4B-4K	0.6	11.00	51°26'	27°42'	6.00



系列	尺寸 (mm)					
	A	B	C	D	E	H
3B-3K	0.6	8.8	45°	25°43'	22°30'	5



系列	尺寸 (mm)					
	A	B	C	D	E	H
3B-3K	0.6	8.8	45°	25°43'	1.8	5.30
4B-4K	0.6	11.1	45°	25°43'	2.2	6.65



注：所有的视图均是从插座方向看过去

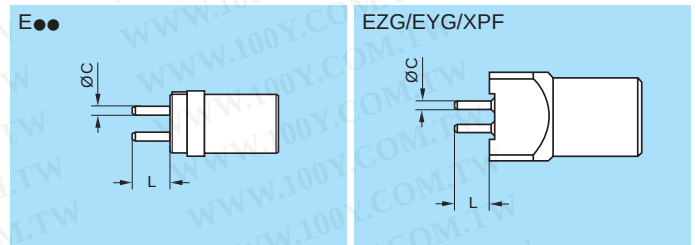
印制板接直针芯的长度 (E●●插座)

	类型	尺寸	
		ØC	L
00	302	0.5	3.0
	303	0.5	3.0
	304	0.5	3.0
0B 0K	302/303	0.7	3.2
	304/305	0.5	3.2
	306/307/309	0.5	3.2
1B 1K	302/303/304/305	0.7	3.0
	306/307/308	0.7	3.0
	310/314/316	0.5	4.0
2B 2K	302/303/304/305/306/307	0.7	3.0
	303/310/312/314/316/318/319	0.7	3.0
	326/332	0.5	3.0
3B 3K	303/304/305/306/307	0.7	3.0
	308/309/310/312/314/316/318	0.7	3.0
	320/322/324/326/330	0.5	5.0
4B 4K	316/320	0.5	5.0
	324/330	0.5	5.0
	340/348	0.5	5.0
5B 5K	348	0.7	5.0
	350	0.5	5.0
	354	0.5	5.0
	364	0.5	5.0

注：此表不适用于插座 H●●、EH●和插头 FA●。

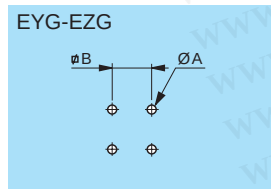
印制板接直针芯的长度 (EZG/EYG/XPF 插座)

	类型	型号			
		EZG/EYG		XPF	
		ØC	L	ØC	L
0B	302/303	0.7	4.5	-	-
	304/305	0.5	4.5	0.7	3.0
	306/307/309	0.5	3.0	-	-
1B	302/303/304/305	0.7	3.8	-	-
	306/307/308	0.7	3.8	-	-
	310/314/316	0.5	3.8	-	-
2B	303/304/305	0.7	5.5	-	-
	306/307/308/310	0.7	5.5	-	-
	312/314/316/318/319	0.7	5.5	-	-

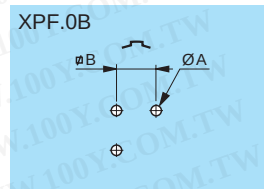


适用于印制线路板的固定式插座 (B系列) P16

外壳固定用开口



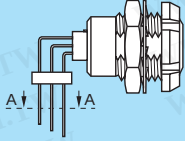
系列	尺寸	
	A	B
00	0.8 ¹⁾	5.08
0B	1.7 ²⁾	7.62
1B	1.7 ²⁾	7.62
2B	1.7 ²⁾	10.16



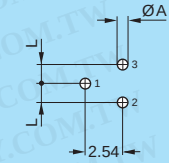
系列	尺寸	
	A	B
0B	1.7	5.08

注：螺钉安装扭矩：0.1 Nm
¹⁾ 焊接固定 ²⁾ 螺钉固定

配印制板接弯针芯的固定式插座 (B-K 系列) P17



303

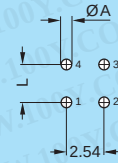


系列	尺寸	
	A	L
00	0.6	1.27
0B-0K	0.7	1.27
1B-1K	0.9	1.27
2B-2K	0.9	2.54

302



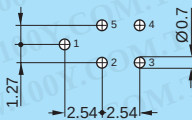
304



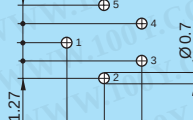
系列	尺寸	
	A	L
00	0.6	
0B-0K	0.7	
1B-1K	0.9	
2B-2K	0.9	

系列	尺寸	
	A	L
00	0.6	2.54
0B-0K	0.7	2.54
1B-1K	0.7	2.54
2B-2K	0.9	3.50

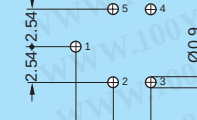
0B-0K.305



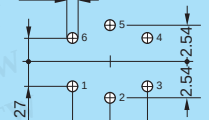
1B-1K.305



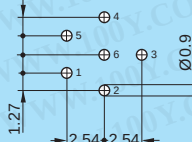
2B-2K.305



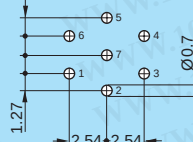
0B-0K / 1B-1K.306



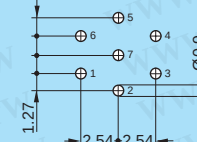
2B-2K.306



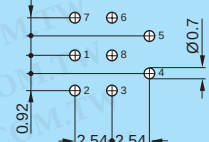
0B-0K / 1B-1K.307



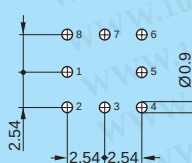
2B-2K.307



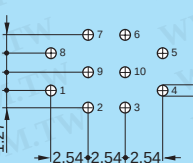
1B-1K.308



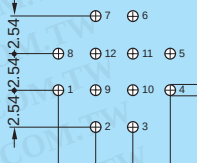
2B-2K.308 / 3B-3K.308



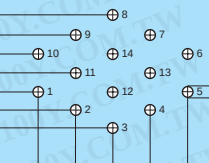
1B-1K / 2B-2K.310



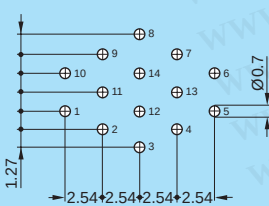
2B-2K / 3B-3K.312



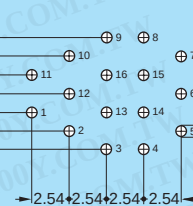
1B-1K / 2B-2K.314



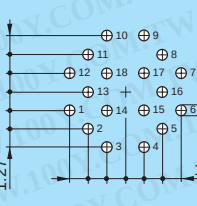
3B-3K.314



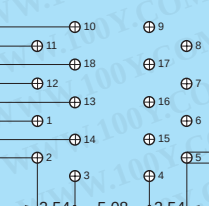
2B-2K / 3B-3K.316



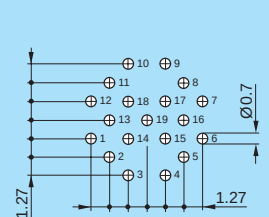
2B-2K.318



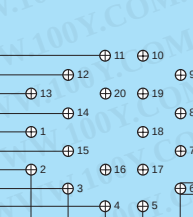
3B-3K.318



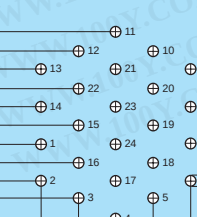
2B-2K.319



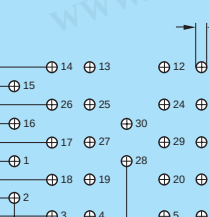
3B-3K.320



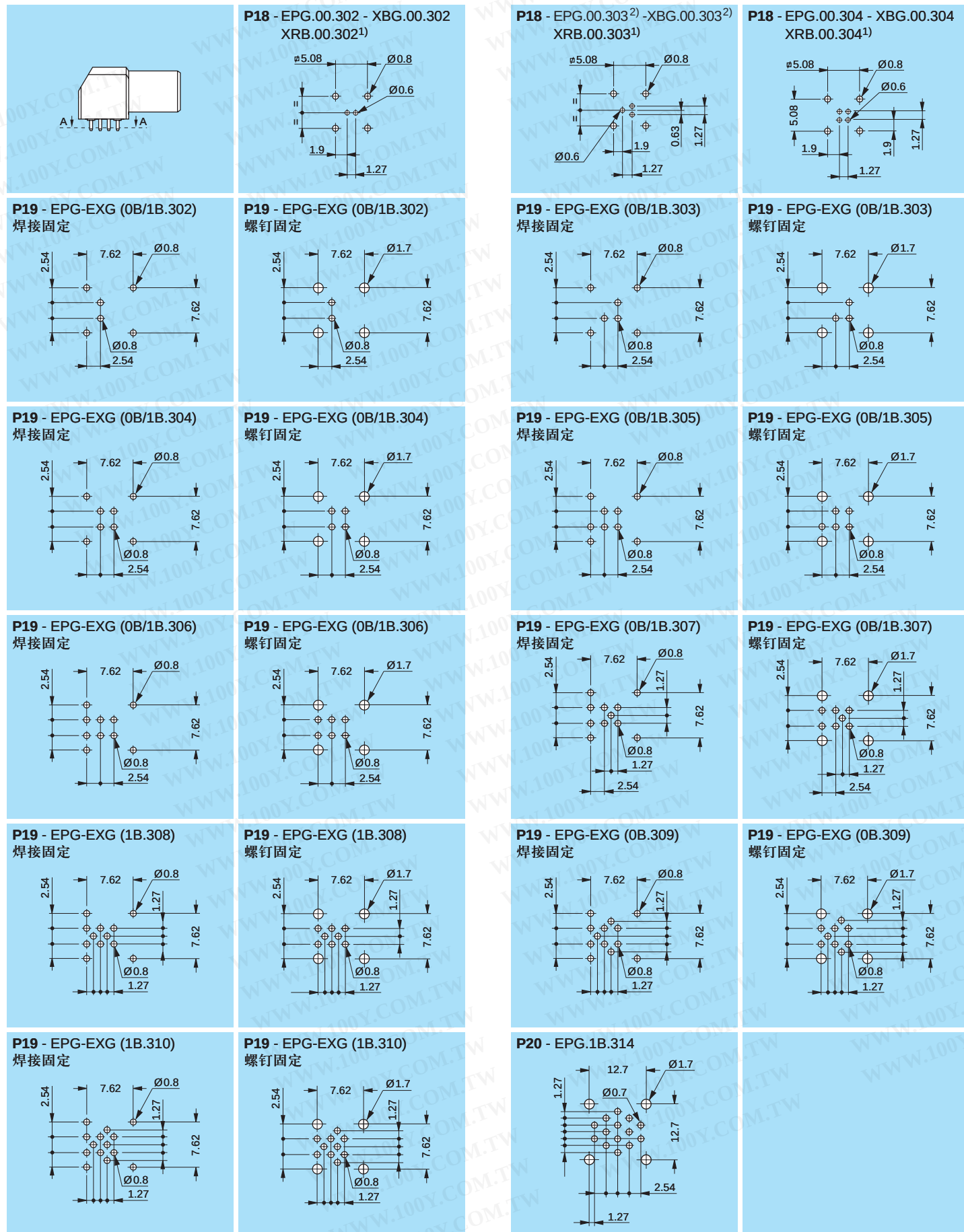
3B-3K.324



3B-3K.330

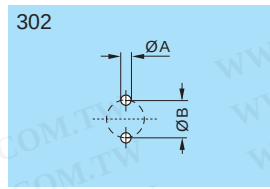


适用于印制线路板的 90° 弯角式插座 (B 系列) **P18** **P19** **P20**

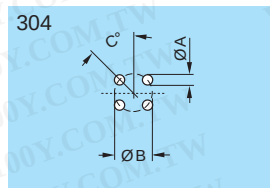


注: 1) XRB.00 型号的外壳固定用开孔不同 (见第 30 页)。
 2) EPG.00.303.HLN 和 XBG.00.303.HLN 的尺寸见第 23 页。需要其他型号, 请联系我们。

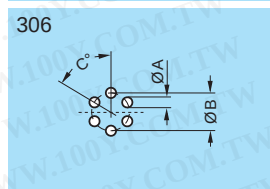
配印制板接直针芯的固定式插座 (S-E 系列) P21



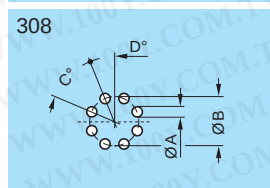
系列	尺寸	
	A	B
0S-0E	0.6	2.2
1S-1E	0.8	3.0



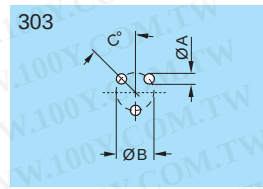
系列	尺寸		
	A	B	C
0S-0E	0.6	2.8	45°
1S-1E	0.8	3.5	45°
2S-2E	0.8	5.0	45°



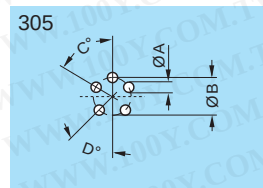
系列	尺寸		
	A	B	C
1S-1E	0.8	3.5	60°
2S-2E	0.8	5.5	60°
3S-3E	0.8	6.5	60°



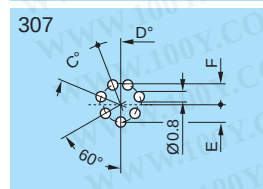
系列	尺寸			
	A	B	C	D
2S-2E	0.8	6.5	45°	22°30'
3S-3E	0.8	7.8	45°	22°30'



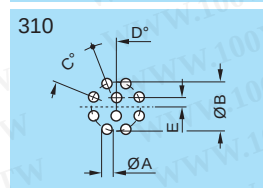
系列	尺寸		
	A	B	C
0S-0E	0.6	2.8	45°
1S-1E	0.8	3.5	45°
2S-2E	0.8	5.5	60°



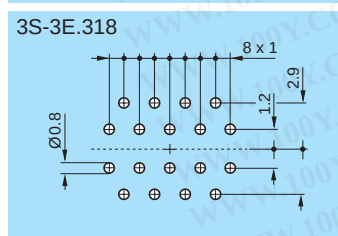
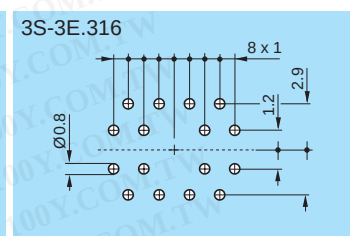
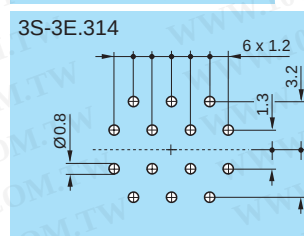
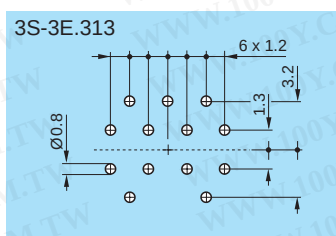
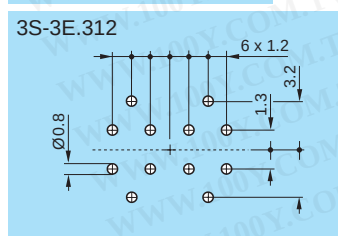
系列	尺寸			
	A	B	C	D
1S-1E	0.8	3.5	60°	45°
2S-2E	0.8	5.5	60°	60°



系列	尺寸			
	C	D	E	F
2S-2E	45°	22°30'	2.75	3.25
3S-3E	45°	22°30'	3.25	3.90

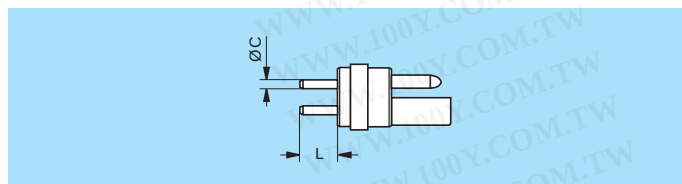


系列	尺寸				
	A	B	C	D	E
2S-2E	0.8	6.5	45°	22°30'	1.25
3S-3E	0.8	7.8	45°	22°30'	1.50



注：所有的视图都是从插座方向看过去

印制板接直针芯的长度 (E●●插座)



	类型	尺寸	
		ØC	L
0S 0E	302	0.7	3.0
	303	0.5	3.0
	304	0.5	3.0
1S 1E	302	0.7/1.5	3.0/5.0
	303/304/305	0.7	3.0
	305/306	0.5	3.0
	307/308/309/310	0.5	3.0

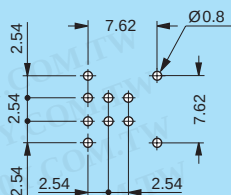
	类型	尺寸	
		ØC	L
2S 2E	303/304/305	0.7	3.0
	306/307	0.7	3.0
	308/310	0.7	3.0
3S 3E	305/306/307/308/310	0.7	3.0
	312/313/314	0.7	3.0
	316/318	0.7	3.0

注：此表不适用于插座 HGP、EHP 和插头 FAA。

适用于印制线路板的 90° 弯角式插座 (S 系列) **P22** **P23**

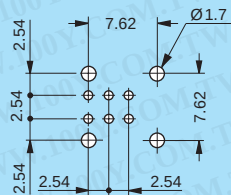
P22 - EPL - EXP

焊接固定

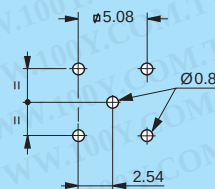


P22 - EPL - EXP

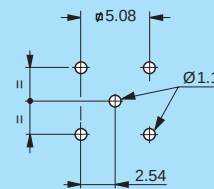
螺钉固定



P23 - EPL.00.113

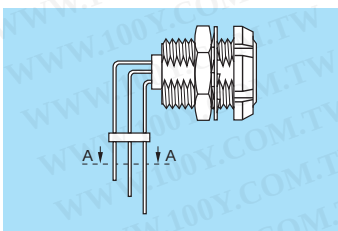


P23 - EPL.0S.116

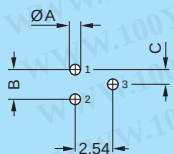


注: 所有尺寸单位均为毫米 (mm)

配印制板接弯针芯的固定式插座 (S - E 系列) **P24**

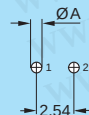


303



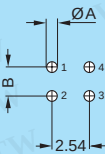
系列	尺寸		
	A	B	C
0S-0E	0.7	2.00	1.00
1S-1E	0.7	2.48	1.24

302



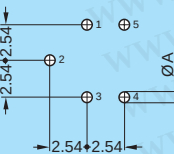
系列	尺寸	
	A	
0S-0E	0.7	
1S-1E	0.9	

304



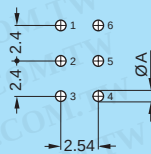
系列	尺寸	
	A	B
0S-0E	0.7	2.00
1S-1E	0.7	3.50
2S-2E	0.9	3.50

305



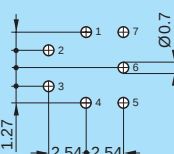
系列	尺寸	
	A	
1S-1E	0.7	
2S-2E	0.9	

306

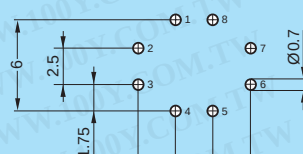


系列	尺寸	
	A	
1S-1E	0.7	
2S-2E	0.9	

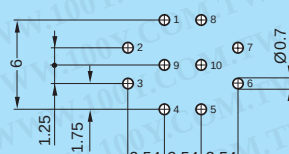
2S-2E.307



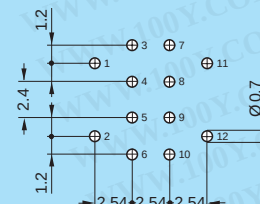
2S-2E.308



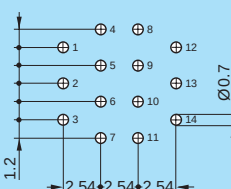
2S-2E / 3S-3E.310



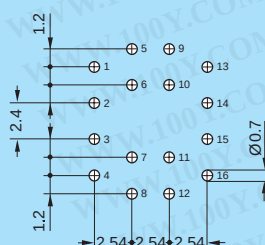
3S-3E.312



3S-3E.314



3S-3E.316



电缆组件 (B、K、S 和 E 系列)

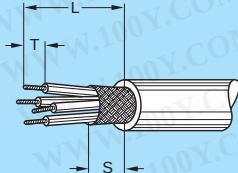
勝特力材料 886-3-5753170
 勝特力电子(上海) 86-21-34970699
 勝特力电子(深圳) 86-755-83298787
[Http://www.100y.com.tw](http://www.100y.com.tw)

电缆剥线长度 (B 系列)

M1 带线夹的直式插头和插座, D 型或 M 型线夹 (配焊接或压接针芯)

M3 带线夹的 90° 弯角式插头, D 型或 M 型线夹 (配焊接或压接针芯)

连接器			针芯 ØA (mm)	电缆剥线长度 (mm)											
				M1						M3					
				焊接针芯			压接针芯			焊接针芯			压接针芯		
				L	S	T	L	S	T	L	S	T	L	S	T
00	302/303/304	0.5	7.0	4	2.5	10.0	4	3.0	9.5	4	2.5	12.5	4	3.0	
0B ¹⁾	302/303	0.9	13.0	7	3.0	17.0	7	4.0	18.0	7	3.0	22.0	7	4.0	
	304/305	0.7	13.0	7	3.0	17.0	7	4.0	18.0	7	3.0	22.0	7	4.0	
	306/307/309 ²⁾	0.5	14.0	7	2.5	18.0	7	3.0	19.0	7	2.5	23.0	7	3.0	
1B ¹⁾	302/303	1.3	14.0	8	3.5	18.0	8	4.0	25.0	8	3.5	28.0	8	4.0	
	304/305	0.9	14.0	8	3.0	18.0	8	4.0	25.0	8	3.0	28.0	8	4.0	
	306/307/308	0.7	14.0	8	3.0	18.0	8	4.0	25.0	8	3.0	28.0	8	4.0	
	310/314/316	0.5	16.5	8	2.5	-	-	-	27.5	8	2.5	-	-	-	
2B	302	2.0	19.0	9	4.0	22.0	9	5.5	30.0	9	4.0	33.0	9	5.5	
	303	1.6	19.0	9	3.5	22.0	9	5.5	30.0	9	3.5	33.0	9	5.5	
	304/305/306/307	1.3	18.0	9	3.5	20.0	9	4.0	29.0	9	3.5	31.0	9	4.0	
	308/310	0.9	17.0	9	3.0	20.0	9	4.0	28.0	9	3.0	31.0	9	4.0	
	312/314/316/318/319	0.7	17.0	9	3.0	20.0	9	4.0	28.0	9	3.0	31.0	9	4.0	
	326/332	0.5	17.0	9	2.5	-	-	-	28.0	9	2.5	-	-	-	
3B	302	3.0	24.0	10	4.5	28.0	10	5.5	35.0	10	4.5	39.0	10	5.5	
	303/304	2.0	23.0	10	4.0	27.0	10	5.5	34.0	10	4.0	38.0	10	5.5	
	305/306/307	1.6	23.0	10	3.5	27.0	10	5.5	34.0	10	3.5	38.0	10	5.5	
	308/310	1.3	22.0	10	3.5	25.0	10	4.0	33.0	10	3.5	36.0	10	4.0	
	309	1.3	22.0	10	3.5	25.0	10	4.0	33.0	10	3.5	36.0	10	4.0	
		2.0			4.0			4.0							
	312/314/316/318	0.9	21.0	10	3.0	25.0	10	4.0	32.0	10	3.0	36.0	10	4.0	
	320/322/324/326/330	0.7	21.0	10	3.0	25.0	10	4.0	32.0	10	3.0	36.0	10	4.0	
4B	304	3.0	33.0	12	4.5	36.0	12	5.5	41.0	12	4.5	45.0	12	5.5	
	306/307	2.0	32.0	12	4.0	36.0	12	5.5	41.0	12	4.0	45.0	12	5.5	
	310	1.6	32.0	12	3.5	36.0	12	5.5	39.0	12	3.5	43.0	12	5.5	
	312	1.3	32.0	12	3.5	36.0	12	4.0	39.0	12	3.5	43.0	12	4.0	
	316/320/324/330	0.9	32.0	12	3.0	34.0	12	4.0	39.0	12	3.0	43.0	12	4.0	
	340/348	0.7	32.0	12	3.0	34.0	12	4.0	39.0	12	3.0	43.0	12	4.0	
5B ¹⁾	302	6.0	42.0	18	7.5	-	-	-	70.0	18	7.5	-	-	-	
	304	4.0	47.0	18	5.5	50.0	18	7.0	75.0	18	5.5	78.0	18	7.0	
	310	3.0	47.0	18	4.5	50.0	18	7.0	75.0	18	4.5	78.0	18	7.0	
	314/316	2.0	46.0	18	4.0	49.0	18	5.5	74.0	18	4.0	77.0	18	5.5	
	320	1.6	46.0	18	3.5	49.0	18	5.5	74.0	18	3.5	77.0	18	5.5	
	330/340/348	1.3	45.0	18	3.5	48.0	18	4.0	74.0	18	3.5	77.0	18	4.0	
	350/354/364	0.9	45.0	18	3.0	48.0	18	4.0	74.0	18	3.0	77.0	18	4.0	



M4 缩短型直式插头, D 型或 M 型线夹 (配焊接或压接针芯)

			连接器	针芯 ØA (mm)	电缆剥线长度 (mm)					
					M4					
					焊接针芯			压接针芯		
系列	类型				L	S	T	L	S	T
0B	302/303	0.9			9.5	8	3.0	13.0	8	4.0
	304/305	0.7			9.5	8	3.0	13.0	8	4.0
	306/307/309 ²⁾	0.5			10.0	8	2.5	13.5	8	3.0

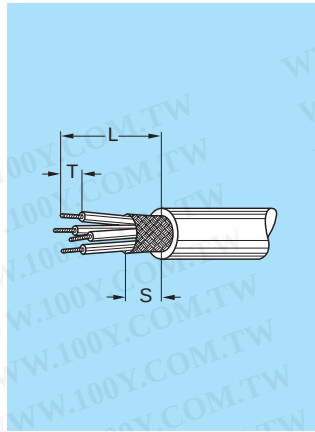
注: 尺寸公差为 L: ± 0.5 mm; S: ± 0.5 mm; T: ± 0.2 mm。

¹⁾ 如果 0B 和 1B 系列配用最大线夹 (0B 系列为 D56, 1B 系列为 D76), L 和 S 的尺寸要增加 2 mm。

如果 5B 系列配用最大线夹 (D25), L 和 S 的尺寸要增加 13 mm。

²⁾ 只有配公针的连接器才可以选择压接型针芯。

M2 加长型直式插头, D型或M型线夹(配焊接或压接针芯)



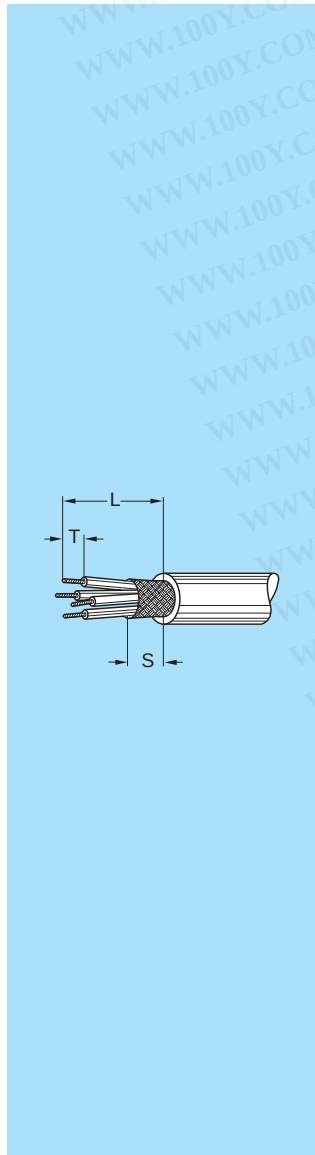
连接器		针芯 ØA (mm)	电缆剥线长度 (mm)					
系列	类型		M2					
			焊接针芯			压接针芯		
			L	S	T	L	S	T
1B ¹⁾	302/303	1.3	39.0	8	3.5	43.0	8	4.0
	304/305	0.9	39.0	8	3.0	43.0	8	4.0
	306/307/308	0.7	39.0	8	3.0	43.0	8	4.0
	310/314/316	0.5	42.0	8	2.5	-	-	-
2B	302	2.0	49.0	9	4.0	53.0	9	5.5
	303	1.6	49.0	9	3.5	53.0	9	5.5
	304/305/306/307	1.3	48.0	9	3.5	50.0	9	4.0
	308/310	0.9	47.0	9	3.0	49.0	9	4.0
	312/314/316/318/319	0.7	47.0	9	3.0	49.0	9	4.0
	326/332	0.5	47.0	9	2.5	-	-	-

注:
¹⁾ 如果0B和1B系列配用最大的线夹(0B系列为D56, 1B系列为D76), L和S的尺寸要增加2mm。
 如果5B系列配用最大线夹(D25), L和S的尺寸要增加13mm。
 尺寸公差为 L: ±0.5 mm
 S: ±0.5 mm
 T: ±0.2 mm

电缆剥线长度 (K 系列)

M1 带线夹的直式插头和插座, C型线夹(配焊接或压接针芯)

M3 带线夹的90°弯角式插头, C型线夹(配焊接或压接针芯)



连接器		针芯 ØA (mm)	电缆剥线长度 (mm)											
系列	类型		M1						M3					
			焊接针芯			压接针芯			焊接针芯			压接针芯		
			L	S	T	L	S	T	L	S	T	L	S	T
OK	302/303	0.9	8.0	6	3.0	12.0	6	4.0	21.0	6	3.0	25.0	6	4.0
	304/305	0.7	8.0	6	3.0	12.0	6	4.0	21.0	6	3.0	25.0	6	4.0
	306/307/309 ¹⁾	0.5	9.0	6	2.5	13.0	6	4.0	22.0	6	2.5	26.0	6	4.0
1K	302/303	1.3	10.5	7	3.5	14.5	7	4.0	27.0	7	3.5	31.0	7	4.0
	304/305	0.9	10.5	7	3.0	14.5	7	4.0	27.0	7	3.0	31.0	7	4.0
	306/307/308	0.7	10.5	7	3.0	14.5	7	4.0	27.0	7	3.0	31.0	7	4.0
	310/314/316	0.5	13.0	7	2.5	-	-	-	29.5	7	2.5	-	-	-
2K	302	2.0	16.5	8	4.0	19.5	8	5.5	36.0	8	4.0	39.0	8	5.5
	303	1.6	16.5	8	3.5	19.5	8	5.5	36.0	8	3.5	39.0	8	5.5
	304/305/306/307	1.3	15.5	8	3.5	17.5	8	4.0	35.0	8	3.5	37.0	8	4.0
	308/310	0.9	14.5	8	3.0	17.5	8	4.0	34.0	8	3.0	37.0	8	4.0
	312/314/316/318/319	0.7	14.5	8	3.0	17.5	8	4.0	34.0	8	3.0	37.0	8	4.0
	326/332	0.5	14.5	8	2.5	-	-	-	34.0	8	2.5	-	-	-
3K	302	3.0	19.0	10	4.5	23.0	10	5.5	48.0	10	4.5	53.0	10	5.5
	303/304	2.0	18.0	10	4.0	22.0	10	5.5	48.0	10	4.0	52.0	10	5.5
	305/306/307	1.6	18.0	10	3.5	22.0	10	5.5	48.0	10	3.5	52.0	10	5.5
	308/310	1.3	17.0	10	3.5	20.0	10	4.0	47.0	10	3.5	50.0	10	4.0
	309	1.3	17.0	10	3.5	20.0	10	4.0	47.0	10	3.5	50.0	10	4.0
		2.0			4.0			5.5			4.0			5.5
	312/314/316/318	0.9	16.0	10	3.0	20.0	10	4.0	46.0	10	3.0	50.0	10	4.0
	320/322/324/326/330	0.7	16.0	10	3.0	20.0	10	4.0	46.0	10	3.0	50.0	10	4.0
4K	304	3.0	22.0	11	4.5	25.0	11	5.5	52.0	11	4.5	55.0	11	5.5
	306/307	2.0	21.0	11	4.0	25.0	11	5.5	51.0	11	4.0	55.0	11	5.5
	310	1.6	21.0	11	3.5	25.0	11	5.5	51.0	11	3.5	55.0	11	5.5
	312	1.3	21.0	11	3.5	25.0	11	4.0	51.0	11	3.5	55.0	11	4.0
	316/320/324/330	0.9	21.0	11	3.0	23.0	11	4.0	51.0	11	3.0	53.0	11	4.0
	340/348	0.7	21.0	11	3.0	23.0	11	4.0	51.0	11	3.0	53.0	11	4.0
5K	302	6.0	24.0	14	7.5	-	-	-	-	-	-	-	-	-
	304	4.0	29.0	14	5.5	32.0	14	7.0	-	-	-	-	-	-
	310	3.0	29.0	14	4.5	32.0	14	7.0	-	-	-	-	-	-
	314/316	2.0	28.0	14	4.0	31.0	14	5.5	-	-	-	-	-	-
	320	1.6	28.0	14	3.5	31.0	14	5.5	-	-	-	-	-	-
	330/340/348	1.3	27.0	14	3.5	30.0	14	4.0	-	-	-	-	-	-
	350/354/364	0.9	27.0	14	3.0	30.0	14	4.0	-	-	-	-	-	-

注: ¹⁾ 只有配公针的连接器才可以选压接型针芯。
 尺寸公差为 L: ±0.5 mm, S: ±0.5 mm, T: ±0.2 mm。

电缆剥线长度 (K 系列)

M2 带加大线夹的直式插头和插座, K 型线夹 (配焊接或压接针芯)

连接器		针芯 ØA (mm)	电缆剥线长度 (mm)					
			M2					
			焊接针芯			压接针芯		
系列	类型		L	S	T	L	S	T
1K	302/303	1.3	24.5	8	3.5	28.5	8	4.0
	304/305	0.9	24.5	8	3.0	28.5	8	4.0
	306/307/308	0.7	24.5	8	3.0	28.5	8	4.0
	310/314/316	0.5	27.0	8	2.5	-	-	-
2K	302	2.0	29.5	10	4.0	32.5	10	5.5
	303	1.6	29.5	10	3.5	32.5	10	5.5
	304/305/306/307	1.3	28.5	10	3.5	30.5	10	4.0
	308/310	0.9	27.5	10	3.0	30.5	10	4.0
	312/314/316/318/319	0.7	27.5	10	3.0	30.5	10	4.0
	326/332	0.5	27.5	10	2.5	-	-	-
3K	302	3.0	37.0	11	4.5	41.0	11	5.5
	303/304	2.0	36.0	11	4.0	40.0	11	5.5
	305/306/307	1.6	36.0	11	3.5	40.0	11	5.5
	308/310	1.3	35.0	11	3.5	38.0	11	4.0
	309	1.3	35.0	11	3.5	38.0	11	4.0
		2.0			4.0			5.5
	312/314/316/318	0.9	34.0	11	3.0	38.0	11	4.0
	320/322/324/326/330	0.7	34.0	11	3.0	38.0	11	4.0
4K	304	3.0	45.0	14	4.5	48.0	14	5.5
	306/307	2.0	44.0	14	4.0	48.0	14	5.5
	310	1.6	44.0	14	3.5	48.0	14	5.5
	312	1.3	44.0	14	3.5	48.0	14	4.0
	316/320/324/330	0.9	44.0	14	3.0	46.0	14	4.0
	340/348	0.7	44.0	14	3.0	46.0	14	4.0

注:
 尺寸公差为 L: ± 0.5 mm
 S: ± 0.5 mm
 T: ± 0.2 mm

单芯连接器电缆剥线长度 (S 系列)

M1 带线夹的直式插头和插座, C 型线夹 (配焊接针芯)

M3 带线夹的 90° 弯角式插头, C 型线夹 (配焊接针芯)

M5 带线夹的直式插头和插座, E 型线夹 (配压接针芯)

M6 带线夹的 90° 弯角式插头, E 型线夹 (配压接针芯)

连接器		针芯 ØA (mm)	电缆剥线长度 (mm)											
			M1			M5			M3			M6		
			焊接针芯			压接针芯			焊接针芯			压接针芯		
系列	类型		L	S	T	L	S	T	L	S	T	L	S	T
00	113	1.3	9	4	4	19	5	7	7	4	2	17	5	7
0S	116	1.6	11	5	4	-	-	-	8	5	2	-	-	-
1S	120	2.0	13	8	5	-	-	-	13	8	2	-	-	-
	130	3.0	13	8	5	-	-	-	13	8	2	-	-	-
2S	130	3.0	18	9	6	-	-	-	15	9	2	-	-	-
	140	4.0	18	9	6	-	-	-	15	9	2	-	-	-
3S	140	4.0	21	9	7	-	-	-	19	9	2	-	-	-
	160	6.0	21	9	9	-	-	-	19	9	2	-	-	-
4S	140	4.0	25	9	7	-	-	-	23	9	2	-	-	-
	160	6.0	25	9	9	-	-	-	23	9	2	-	-	-
5S	112	12.0	12	15	12	-	-	-	-	-	-	-	-	-

单芯连接器电缆剥线长度 (S 系列)

M2 带加大线夹的直式插头和插座, K 型线夹 (配焊接针芯)

Technical drawing of a cable connector. The drawing shows a cross-section of the connector with three dimensions labeled: L (total length), T (length of the outer sleeve), and S (length of the inner sleeve).

连接器		针芯 ØA (mm)	电缆剥线长度 (mm)		
系列	类型		M2		
			焊接针芯		
			L	S	T
00	113	1.3	16	4	4
0S	116	1.6	19	5	4
1S	120	2.0	25	8	5
	130	3.0	25	8	5
2S	130	3.0	34	9	6
	140	4.0	34	9	6
3S	140	4.0	39	9	7
	160	6.0	39	9	9
4S	140	4.0	50	9	7
	160	6.0	50	9	9

勝特力材料 886-3-5753170
勝特力电子(上海) 86-21-34970699
勝特力电子(深圳) 86-755-83298787
[Http://www.100y.com.tw](http://www.100y.com.tw)

多芯连接器电缆剥线长度 (S 系列)

M1 带线夹的直式插头和插座, C 型线夹 (配焊接或压接针芯)

M3 带线夹的 90° 弯角式插头, C 型线夹 (配焊接或压接针芯)

A technical diagram of a cable connector. It shows a cross-section of a cable with multiple conductors. The dimension 'L' is the length of the connector housing. 'T' is the thickness of the housing. 'S' is the diameter of the cable. The diagram shows the internal conductors and the way they are terminated within the housing.

连接器	针芯 ØA (mm)	电缆剥线长度 (mm)																
系列	类型	M1		M3														
		焊接针芯		压接针芯		焊接针芯		压接针芯										
		L	S	T		L	S	T		L	S	T		L	S	T		
0S	302	0.9	11	5	3.0	15	5	4.0	11	5	3.0	15	5	4.0				
	303/304	0.7	11	5	2.5	15	5	4.0	11	5	2.5	15	5	4.0				
1S	302	1.3	13	8	3.0	17	8	4.0	13	8	3.0	17	8	4.0				
	303/304	0.9	13	8	3.0	17	8	4.0	13	8	3.0	17	8	4.0				
	305	0.9	13	8	3.0	17	8	4.0	13	8	3.0	17	8	4.0				
		0.7	13	8	2.5	17	8	4.0	13	8	2.5	17	8	4.0				
	306	0.7	13	8	2.5	17	8	4.0	13	8	2.5	17	8	4.0				
		0.7	13	8	2.5	17	8	4.0	13	8	2.5	17	8	4.0				
2S	302	1.6	18	9	4.5	22	9	5.5	18	9	4.5	22	9	5.5				
	303/304/305/306	1.3	18	9	4.0	22	9	4.0	18	9	4.0	22	9	4.0				
	307	1.3	18	9	4.0	22	9	4.0	18	9	4.0	22	9	4.0				
		0.9	18	9	4.0	22	9	4.0	18	9	4.0	22	9	4.0				
	308/310	0.9	18	9	4.0	22	9	4.0	18	9	4.0	22	9	4.0				
3S	302/303/304	2.0	21	9	5.0	-	-	-	-	-	-	-	-	-				
	305	2.0	21	9	5.0	-	-	-	-	-	-	-	-	-				
		1.3	21	9	4.0	-	-	-	-	-	-	-	-	-				
	306/307/308/310	1.3	21	9	4.0	-	-	-	-	-	-	-	-	-				
	312/313/314/316/318	0.9	21	9	4.0	-	-	-	-	-	-	-	-	-				
4S	302	4.0	25	9	7.0	-	-	-	-	-	-	-	-	-				
	303/304	3.0	25	9	6.0	-	-	-	-	-	-	-	-	-				
	305	3.0	25	9	6.0	-	-	-	-	-	-	-	-	-				
		2.0	25	9	5.0	-	-	-	-	-	-	-	-	-				
	306	2.0	25	9	5.0	-	-	-	-	-	-	-	-	-				
	307	2.0	25	9	5.0	-	-	-	-	-	-	-	-	-				
		1.3	25	9	4.0	-	-	-	-	-	-	-	-	-				
	308/309/310	1.3	25	9	4.0	-	-	-	-	-	-	-	-	-				
	312/313/314	1.3	25	9	4.0	-	-	-	-	-	-	-	-	-				
	316/318/320/322/324	0.9	25	9	4.0	-	-	-	-	-	-	-	-	-				

勝特力材料 886-3-5753170
 勝特力电子(上海) 86-21-34970699
 勝特力电子(深圳) 86-755-83298787
[Http://www.100y.com.tw](http://www.100y.com.tw)

多芯连接器电缆剥线长度 (S 系列)

M1 带线夹的直式插头和插座, C 型线夹 (配焊接针芯)

M3 带线夹的 90° 弯角式插头, C 型线夹 (配焊接针芯)

连接器		针芯 ØA (mm)	电缆剥线长度 (mm)					
			M1			M3		
			焊接针芯			焊接针芯		
系列	类型		L	S	T	L	S	T
5S	302	6.0	35	22	9.0	35	22	9.0
	303	6.0	35	22	9.0	35	22	9.0
	304	4.0	35	22	7.0	35	22	7.0
	305	4.0	35	22	7.0	35	22	7.0
	306/308	3.0	35	22	6.0	35	22	6.0
	310/312	2.0	35	22	7.0	35	22	7.0
	314	3.0	35	22	6.0	35	22	6.0
	316	2.0	35	22	7.0	35	22	7.0
	318	3.0	35	22	6.0	35	22	6.0
	320	1.6	35	22	4.5	35	22	4.5
	322	3.0	35	22	6.0	35	22	6.0
	324	1.6	35	22	4.5	35	22	4.5
	330/336/340/344/348	1.3	35	22	4.0	35	22	4.0
	304	8.0	37	15	10.0	37	15	10.0
	312/318	4.0	37	15	7.0	37	15	7.0
6S	320/324	3.0	37	15	6.0	37	15	6.0
	330/336/348	2.0	37	15	7.0	37	15	7.0
	360	1.6	37	15	4.5	37	15	4.5
	364/372	1.3	37	15	4.0	37	15	4.0
	106	0.9	37	15	4.0	37	15	4.0

多芯连接器电缆剥线长度 (S 系列)

M4 带线夹的直式插头, D 型或 M 型线夹 (配焊接或压接针芯)

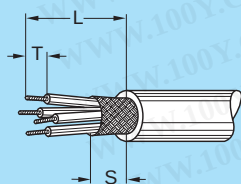
连接器		针芯 ØA (mm)	电缆剥线长度 (mm)					
			M4					
			焊接针芯			压接针芯		
系列	类型		L	S	T	L	S	T
2S	302	1.6	48	9	4.5	52	9	5.5
	303/304/305/306	1.3	48	9	4.0	52	9	4.0
	307	1.3	48	9	4.0	52	9	4.0
	308/310	0.9	48	9	4.0	52	9	4.0

多芯连接器电缆剥线长度 (S 系列)

M2 带加大线夹的直式插头和插座, K 型线夹 (配焊接或压接针芯)

勝特力材料 886-3-5753170
 勝特力电子(上海) 86-21-34970699
 勝特力电子(深圳) 86-755-83298787
[Http://www.100y.com.tw](http://www.100y.com.tw)

连接器		针芯 ØA (mm)	电缆剥线长度 (mm)					
			M2					
			焊接针芯			压接针芯		
系列	类型		L	S	T	L	S	T
0S	302	0.9	19	5	3.0	23	5	4.0
	303/304	0.7	19	5	2.5	23	5	4.0
1S	302	1.3	25	8	3.0	28	8	4.0
	303/304	0.9	25	8	3.0	28	8	4.0
	305	0.9	25	8	3.0	28	8	4.0
		0.7	25	8	2.5	28	8	4.0
	306	0.7	25	8	2.5	28	8	4.0
2S	302	1.6	34	9	4.5	38	9	5.5
	303/304/305/306	1.3	34	9	4.0	38	9	4.0
	307	1.3	34	9	4.0	38	9	4.0
		0.9	34	9	4.0	38	9	4.0
	308/310	0.9	34	9	4.0	38	9	4.0
3S	302/303/304	2.0	39	9	5.0	-	-	-
	305	2.0	39	9	5.0	-	-	-
		1.3	39	9	4.0	-	-	-
	306/307/308/310	1.3	39	9	4.0	-	-	-
	312/313/314/316/318	0.9	39	9	4.0	-	-	-
4S	302	4.0	50	9	7.0	-	-	-
	303/304	3.0	50	9	6.0	-	-	-
	305	3.0	50	9	6.0	-	-	-
		2.0	50	9	5.0	-	-	-
	306	2.0	50	9	5.0	-	-	-
	307	2.0	50	9	5.0	-	-	-
		1.3	50	9	4.0	-	-	-
	308/309/310	1.3	50	9	4.0	-	-	-
	312/313/314	1.3	50	9	4.0	-	-	-
	316/318/320/322/324	0.9	50	9	4.0	-	-	-
5S	302	6.0	70	22	9.0	-	-	-
	303	6.0	70	22	9.0	-	-	-
		4.0	70	22	7.0	-	-	-
	304	4.0	70	22	7.0	-	-	-
	305	4.0	70	22	7.0	-	-	-
		3.0	70	22	6.0	-	-	-
	306/308	3.0	70	22	6.0	-	-	-
	310/312	2.0	70	22	7.0	-	-	-
	314	3.0	70	22	6.0	-	-	-
		2.0	70	22	7.0	-	-	-
	316	2.0	70	22	7.0	-	-	-
	318	3.0	70	22	6.0	-	-	-
		1.6	70	22	4.5	-	-	-
	320	1.6	70	22	4.5	-	-	-
	322	3.0	70	22	6.0	-	-	-
		1.6	70	22	4.5	-	-	-
	324	1.6	70	22	4.5	-	-	-
	330/336/340/344/348	1.3	70	22	4.0	-	-	-



勝特力材料 886-3-5753170
 勝特力电子(上海) 86-21-34970699
 勝特力电子(深圳) 86-755-83298787
[Http://www.100y.com.tw](http://www.100y.com.tw)

单芯连接器电缆剥线长度 (E 系列)

M1 带线夹的直式插头和插座, C 型线夹 (配焊接针芯)

M3 带线夹的 90° 弯角式插头, C 型线夹 (配焊接针芯)

A technical drawing of a cable connector. The drawing shows a cross-section of the connector with a central pin. Dimension lines indicate the following measurements: 'L' is the total length of the connector; 'T' is the length of the central pin; and 'S' is the length of the outer sleeve or housing.

连接器		针芯 ØA (mm)	电缆剥线长度 (mm)								
			M1			M3					
			焊接针芯			压接针芯					
系列	类型		L	S	T	L	S	T			
0E	116	1.6	9	5	4	20	5	4			
	120	2.0	12	8	5	25	8	5			
1E	130	3.0	13	8	5	25	8	5			
	130	3.0	16	9	6	33	9	6			
2E	140	4.0	15	9	6	33	9	6			
	140	4.0	19	9	7	40	9	7			
3E	160	6.0	20	9	9	40	9	9			
	160	6.0	23	9	9	50	9	9			
5E	112	12.0	12	15	12	-	-	-			

连接器		针芯 ØA (mm)	电缆剥线长度 (mm)								
			M1			M3					
			焊接针芯			压接针芯					
系列	类型		L	S	T	L	S	T			
0E	116	1.6	9	5	4	20	5	4			
	120	2.0	12	8	5	25	8	5			
1E	130	3.0	13	8	5	25	8	5			
	130	3.0	16	9	6	33	9	6			
2E	140	4.0	15	9	6	33	9	6			
	140	4.0	19	9	7	40	9	7			
3E	160	6.0	20	9	9	40	9	9			
	160	6.0	23	9	9	50	9	9			
5E	112	12.0	12	15	12	-	-	-			

单芯连接器电缆剥线长度 (E 系列)

M2 带加大线夹的直式插头和插座, K 型线夹 (配焊接针芯)

连接器			针芯 ØA (mm)	电缆剥线长度 (mm)		
				M2		
				焊接针芯		
系列	类型			L	S	T
1E	120	2.0	25	8	5	
	130	3.0	26	8	5	
2E	130	3.0	28	9	6	
	140	4.0	27	9	6	
3E	140	4.0	36	9	7	
	160	6.0	37	9	9	
4E	160	6.0	50	9	9	

多芯连接器电缆剥线长度 (E 系列)

M1 带线夹的直式插头和插座, C 型线夹 (配焊接或压接针芯)

M3 带线夹的 90° 弯角式插头, C 型线夹 (配焊接或压接针芯)

连接器	系列	类型	针芯 ØA (mm)	电缆剥线长度 (mm)											
				M1						M3					
				焊接针芯			压接针芯			焊接针芯			压接针芯		
				L	S	T	L	S	T	L	S	T	L	S	T
0E		302	0.9	8	5	3.0	12	5	4.0	19	5	3.0	23	5	4.0
		303/304	0.7	8	5	2.5	12	5	4.0	19	5	2.5	23	5	4.0
1E		302	1.3	11	8	3.0	15	8	4.0	24	8	3.0	28	8	4.0
		303/304	0.9	11	8	3.0	15	8	4.0	24	8	3.0	28	8	4.0
		305	0.9	11	8	3.0	15	8	4.0	24	8	3.0	28	8	4.0
			0.7	11	8	2.5	15	8	4.0	24	8	2.5	28	8	4.0
		306	0.9	11	8	3.0	15	8	4.0	24	8	3.0	28	8	4.0
			0.7	11	8	2.5	15	8	4.0	24	8	2.5	28	8	4.0
2E		302	1.6	15	9	4.5	19	9	5.5	33	9	4.5	37	9	5.5
		303/304/305/306	1.3	15	9	4.0	19	9	4.0	33	9	4.0	37	9	4.0
		307	1.3	15	9	4.0	19	9	4.0	33	9	4.0	37	9	4.0
			0.9	15	9	4.0	19	9	4.0	33	9	4.0	37	9	4.0
		308/310	0.9	15	9	4.0	19	9	4.0	33	9	4.0	37	9	4.0

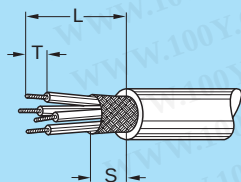
多芯连接器电缆剥线长度 (E 系列)

M1 带线夹的直式插头和插座, C 型线夹 (配焊接针芯)

M3 带线夹的 90° 弯角式插头, C 型线夹 (配焊接针芯)

勝特力材料 886-3-5753170
 勝特力电子(上海) 86-21-34970699
 勝特力电子(深圳) 86-755-83298787
[Http://www.100y.com.tw](http://www.100y.com.tw)

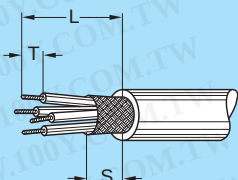
系列	连接器 类型	针芯 ØA (mm)	电缆剥线长度 (mm)					
			M1			M3		
			焊接针芯			焊接针芯		
			L	S	T	L	S	T
3E	302/303/304	2.0	18	9	5.0	39	9	5.0
	305	2.0	18	9	5.0	39	9	5.0
		1.3	18	9	4.0	39	9	4.0
	306/307/308/310	1.3	18	9	4.0	39	9	4.0
	312/313/314/316/318	0.9	18	9	4.0	39	9	4.0
4E	302	4.0	23	9	7.0	50	9	7.0
	303/304	3.0	23	9	6.0	50	9	6.0
		3.0	23	9	6.0	50	9	6.0
	305	2.0	23	9	5.0	50	9	5.0
	306	2.0	23	9	5.0	50	9	5.0
	307	2.0	23	9	5.0	50	9	5.0
		1.3	23	9	4.0	50	9	4.0
	308/309/310/312/314	1.3	23	9	4.0	50	9	4.0
	316/318/320/322/324	0.9	23	9	4.0	50	9	4.0
	302	6.0	48	15	9.0	-	-	-
5E	303	6.0	48	15	9.0	-	-	-
		4.0	48	15	7.0	-	-	-
	304	4.0	48	15	7.0	-	-	-
	305	4.0	48	15	7.0	-	-	-
		3.0	48	15	6.0	-	-	-
	306/308	3.0	48	15	6.0	-	-	-
	310/312	2.0	48	15	7.0	-	-	-
	314	3.0	48	15	6.0	-	-	-
		2.0	48	15	7.0	-	-	-
	316	2.0	48	15	7.0	-	-	-
	318	3.0	48	15	6.0	-	-	-
		1.6	48	15	4.5	-	-	-
	320	1.6	48	15	4.5	-	-	-
	322	3.0	48	15	6.0	-	-	-
		1.6	48	15	4.5	-	-	-
	324	1.6	48	15	4.5	-	-	-
	330/336/340/344/348	1.3	48	15	4.0	-	-	-
6E	303	6.0	70	30	9.0	-	-	-
	304	8.0	70	30	10.0	-	-	-
	312	5.0	70	30	8.0	-	-	-
	316/320/324	3.0	70	30	6.0	-	-	-
	330/332	2.0	70	30	7.0	-	-	-
	336	1.3	70	30	4.0	-	-	-
		5.0	70	30	8.0	-	-	-
	340/348	2.0	70	30	7.0	-	-	-
	360/362	1.6	70	30	4.5	-	-	-
	364/372	1.3	70	30	4.0	-	-	-
	106	0.9	70	30	4.0	-	-	-



多芯连接器电缆剥线长度 (E 系列)

M2 帶加大线夹的直式插头和插座, K 型线夹 (配焊接或压接针芯)

连接器		针芯 ØA (mm)	电缆剥线长度 (mm)					
			M2					
			焊接针芯			焊接针芯		
系列	类型		L	S	T	L	S	T
1E	302	1.3	24	8	3.0	28	8	4.0
	303/304	0.9	24	8	3.0	28	8	4.0
	305	0.9	24	8	3.0	28	8	4.0
		0.7	24	8	2.5	28	8	4.0
	306	0.7	24	8	2.5	28	8	4.0
2E	302	1.6	27	9	4.5	31	9	5.5
	303/304/305/306	1.3	27	9	4.0	31	9	4.0
	307	1.3	27	9	4.0	31	9	4.0
		0.9	27	9	4.0	31	9	4.0
	308/310	0.9	27	9	4.0	31	9	4.0
3E	302/303/304	2.0	35	9	5.0	-	-	-
	305	2.0	35	9	5.0	-	-	-
		1.3	35	9	4.0	-	-	-
	306/307/308/310	1.3	35	9	4.0	-	-	-
	312/313/314/316/318	0.9	35	9	4.0	-	-	-
4E	302	4.0	50	9	7.0	-	-	-
	303/304	3.0	50	9	6.0	-	-	-
	305	3.0	50	9	6.0	-	-	-
		2.0	50	9	5.0	-	-	-
	306	2.0	50	9	5.0	-	-	-
		2.0	50	9	5.0	-	-	-
	307	1.3	50	9	4.0	-	-	-
	308/309/310/312/314	1.3	50	9	4.0	-	-	-
	316/318/320/322/324	0.9	50	9	4.0	-	-	-



多芯连接器电缆剥线长度 (L 系列)

M1 带线夹的直式插头和插座, C 型线夹 (配焊接或压接针芯)

M3 带线夹的 90° 弯角式插头, C 型线夹 (配焊接或压接针芯)

The diagram shows a cross-section of a cable with three dimensions labeled: L (overall length), T (thickness of the outer jacket), and S (diameter of the individual conductors).

连接器			针芯 ØA (mm)	电缆剥线长度 (mm)												
				M1						M3						
				焊接针芯			压接针芯			焊接针芯			压接针芯			
系列	类型			L	S	T	L	S	T	L	S	T	L	S	T	
0L	302	0.9	10.5	6	3.0	12.0	6	4.0	23.5	6	3.0	25.0	6	4.0		
	303/304	0.7	10.5	6	2.5	12.0	6	4.0	23.5	6	2.5	25.0	6	4.0		
1L	302	1.3	12.5	7	3.0	14.5	7	4.0	29.0	7	3.0	31.0	7	4.0		
	303/304	0.9	12.5	7	3.0	14.5	7	4.0	29.0	7	3.0	31.0	7	4.0		
	305	0.9	12.5	7	3.0	14.5	7	4.0	29.0	7	3.0	31.0	7	4.0		
		0.7	12.5	7	2.5	14.5	7	4.0	29.0	7	2.5	31.0	7	4.0		
	306	0.7	12.5	7	2.5	14.5	7	4.0	29.0	7	2.5	31.0	7	4.0		
2L	302	1.6	18.0	8	4.5	19.5	8	5.5	37.5	8	4.5	39.0	8	5.5		
	303/304/305/306	1.3	17.0	8	4.0	17.5	8	4.0	36.5	8	4.0	37.0	8	4.0		
	307	1.3	17.0	8	4.0	17.5	8	4.0	36.5	8	4.0	37.0	8	4.0		
		0.9	16.0	8	4.0	17.5	8	4.0	35.5	8	4.0	37.0	8	4.0		
	308/310	0.9	16.0	8	4.0	17.5	8	4.0	35.5	8	4.0	37.0	8	4.0		

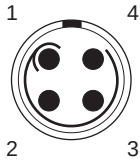
多芯连接器电缆剥线长度 (L 系列)

M2 带加大线夹的直式插头和插座, K 型线夹 (配焊接或压接针芯)

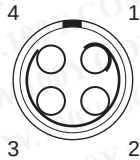
The diagram illustrates a cable connector assembly. It shows a bundle of wires entering a cylindrical connector. Dimension 'L' represents the total length of the cable assembly. Dimension 'T' represents the length of the exposed conductors. Dimension 'S' represents the length of the connector housing.

连接器			电缆剥线长度 (mm)						
			针芯 ØA (mm)	M2					
				焊接针芯			压接针芯		
系列	类型			L	S	T	L	S	T
1L	302		1.3	26.5	8	3.0	28.5	8	4.0
	303/304		0.9	26.5	8	3.0	28.5	8	4.0
	305		0.9	26.5	8	3.0	28.5	8	4.0
			0.7	26.5	8	2.5	28.5	8	4.0
	306		0.7	26.5	8	2.5	28.5	8	4.0
2L	302		1.6	31.0	10	4.5	32.5	10	5.5
	303/304/305/306		1.3	30.0	10	4.0	30.5	10	4.0
	307		1.3	30.0	10	4.0	30.5	10	4.0
			0.9	29.0	10	4.0	30.5	10	4.0
	308/310		0.9	29.0	10	4.0	30.5	10	4.0

针芯的计数示例



插针型



插孔型

从焊接端看, 芯针在插针型绝缘体上按逆时针排列, 在插孔型绝缘体上按顺时针排列。1号针用一个半圆标记

技术特性

勝特力材料 886-3-5753170
 勝特力电子(上海) 86-21-34970699
 勝特力电子(深圳) 86-755-83298787
[Http://www.100y.com.tw](http://www.100y.com.tw)



外壳

黄铜

雷莫连接器大多为黄铜外壳，能满足军事或民用绝大多数应用要求。黄铜外壳的表面镀有镍铬防腐层，在抗工业废气、盐雾和大多数腐蚀剂方面，均有出色效果。

此外，一些特定环境下使用的其他材料的防腐层也可供选择：

- 电镀镍
- 镀镍-金
- 镀镍-黑铬。进行镀黑铬处理后，再将部件表面加一层有机保护膜。

不锈钢

对于非常恶劣的使用环境，表面镀层会很快遭受破坏，我们推荐使用不锈钢。通常采用AISI 303号不锈钢，适用于大多数要求产品全部使用不锈钢的环境。

对于核工业这样的特殊领域，我们选用了AISI 304号不锈钢，它能防辐射、耐硝酸腐蚀。

医疗行业推荐使用AISI 316L号不锈钢，因为医疗行业对耐腐蚀性要求很高。此外，这种不锈钢制作的连接器可通过电焊方式把它的外壳与同样材质的设备焊接起来。这些连接器未做任何表面处理。

铝合金

在许多对重量有特殊要求的应用场合，例如航空航天工业、手提移动设备等，适合选用铝合金外壳的连接器。

铝合金除了有很高的机械强度和优异的耐腐蚀性能外，其外壳表面还可通过阳极电镀进行保护。有六种颜色可供选择：蓝、黄、黑、红、绿和自然色。

塑料材料

有些连接器的外壳可以使用塑料制作。这种连接器的电绝缘性能绝佳，特别适用于医疗行业。黑色聚甲醛(POM)尤其适用于00系列或S系列的连接器。

灰色或白色聚砜(PSU)及米色PEEK材料，有极佳的机械性能，适于蒸气消毒环境使用。

有些2B和3B系列的型号，可以用苯基聚砜(PPSU)材料制做外壳。它能承受几百次的蒸气消毒处理。

桥式插头或带有平行插座的插头，外壳用聚酰胺(PA.6)制作。有9种颜色可供选择：蓝色、白色、灰色、黄色、棕色、黑色、红色、橙色和绿色。

有些适用于印制线路板的弯角式插座，壳体外部用聚苯硫(PPS)注塑。

其他金属构件

金属构件多由黄铜制作。当弹性要求较高时，则会用青铜或者铜(例如：接地环)。根据需要，有些构件会镀镍或镀镍-金。这些构件也可用不锈钢制作。

密封垫圈

密封垫圈一般用MQ/MVQ硅胶制作。不过，真空插座和双通的密封垫片是用氟橡胶(FPM)制作的。

密封树脂

水密型和真空密封型的插座和双通，都用环氧树脂作密封。

材料及其表面处理

构件	材料 (标准)	表面处理 (μm)										注
		铬			镍		金			黑铬		
		Cu	Ni	Cr	Cu	Ni	Cu	Ni	Au	Ni	Cr	
外壳、尾盖、锥形螺母 或开槽螺母，带加大线夹	黄铜 (UNS C 38500)	0.5	3	0.3	0.5	3	0.5	3	0.5	1	2	
	不锈钢 (AISI 303, 304 或 316L)	未做表面处理										
	阿维昂铝合金 (AA 2030)	-	-	-	-	5	-	-	-	-	-	1)
	铝合金 (AA 6012)	阳极电镀										
	POM, 聚甲醛(Delrin® 或 Ertacetal®), 黑色	-										2)
	PEEK, 聚醚醚酮树脂, 米色	-										3)
	PSU, 聚砜(Udel®), 灰色或白色	-										4)
	PPSU, 聚苯砜(Radel®), 奶油色	-										4)
	PA.6, 聚酰胺(Grilon®),	-										5)
PPS, 聚苯硫(Ryton®), 棕色	-										6)	
接地环	青铜 (UNS C 54400) 或特殊黄铜	-	-	-	0.5	3	0.5	3	1.0	-	-	7)
	铍铜 (UNS C 17300)	-	-	-	0.5	3	0.5	3	1.0	-	-	8)
	不锈钢 (AISI 416 或 316L)	未做表面处理										9)
锁定套筒	特殊黄铜	0.5	3	0.3	0.5	3	0.5	3	0.5	-	-	
	不锈钢 (AISI 416 或 316L)	未做表面处理										9)
防滑垫圈	青铜 (UNS C 52100)	-	-	-	0.5	3	0.5	3	0.5	-	-	
	黄铜 (UNS C 38500)	未做表面处理										10)
六角螺母或圆形螺母	不锈钢 (AISI 303, 304 或 316L)	未做表面处理										10)
	铝合金 (AA 6012)	阳极电镀 (自然色)										10)
其他金属构件	黄铜 (UNS C 38500)	-	-	-	0.5	3	0.5	3	0.5	-	-	
	不锈钢 (AISI 303, 304 或 316L)	未做表面处理										
O 形圈及垫圈	硅橡胶 MQ/MVQ 或 氟橡胶 FPM/FKM (Viton®)	-										11)
密封树脂	环氧树脂 (Araldite® 或 Stycast®)	-										

注:

表面处理标准如下:

- 镀铬: FS QQ-C-320B

- 镀镍: FS QQ-N-290A 或 MIL-C-26074C

- 镀金: ISO 4523

- 镀黑铬: MIL-C-14538C, 最少10 μm漆保护

1) 煤褐色 (也可选择其他颜色)

2) 适用于0S - 3S系列的FFP、PCP和ERN型号

3) 适用于0S - 3S系列的FFP、PCP和ERN型号, 及1B、3B和4B系列的FGG和ENG型号

4) 适用于2B、3B系列的FGY和ENY型号

5) 适用于B系列的桥式插头

6) 适用于S和B系列的印制板接弯角插座

7) 镀金适用于单芯类型

8) 用于00系列的固定或浮动式插座和双通

9) AISI 416 号钢用于 AISI 303 或 304 外壳的连接器

10) 配套外壳用铝合金或不锈钢的浮动或固定式插座

11) 氟橡胶 FPM/FKM (Viton®) 的 O 形圈和垫圈, 是真空密封型号的标准配置。其他型号有特殊需要时, 也可选用。

塑料材料的技术特性

项目	标准	单位	POM	PEEK	PSU	PPSU	PPS	PA.6	硅胶	FPM	环氧树脂
密度	ASTM D 792	-	1.4	1.3-1.4	1.24	1.3	1.67	1.14	~1.2	~1.9	1.58
抗张强度 (温度23°C)	ASTM D 638/ ISO R527	MPa	70-80	92-142	70	70	121	55	> 9	> 12	16
抗弯强度 (温度23°C)	ASTM D 790/ ISO R178	MPa	-	170	106	91	179	75	-	-	24
绝缘强度	ASTM D 149/IEC 60243	kV/mm	60	19-25	17-20	15	17	35	18-30	-	15
体积电阻率 (23°C, 相对湿度 50%)	ASTM D 257/IEC 60093	Ω•cm	10 ¹⁵	10 ¹⁶	5x10 ¹⁶	-	10 ¹⁶	10 ¹⁵	10 ¹⁴	-	10 ¹⁴
表面电阻率	ASTM D 257	Ω	10 ¹³	10 ¹⁵	-	-	-	-	-	-	-
导热系数	ASTM C 177	W/K•m	0.31	0.25	0.26	-	0.3	-	-	-	0.8
相对电痕指数 (CTI)	IEC 60112	V	CTI 600	CTI 150	CTI 150	-	CTI 200	CTI 600	-	-	CTI>600
最高连续工作温度	UL 746	°C	90	250	140	180	220	80	200	200	80
最低连续工作温度	UL 746	°C	-50	-55	-60	-50	-60	-40	-50	-20	-20
最高短时工作温度	-	°C	140	300	160	200	250	150	> 250	300	120
吸水率 (24小时, 23°C)	ASTM D 570/ISO R62A	%	0.85	0.12	0.3	0.37	< 0.05	> 3	-	-	0.25
防辐射性能	-	Gy ¹⁾	8x10 ³	10 ⁷	10 ⁵	-	> 10 ⁷	5x10 ³	10 ⁵	8x10 ⁴	2x10 ⁶
防火等级	ASTM D 635/UL 94	-	HB	V-0/3.2	V-0/4.4	V-0/1.6	V-0/5V	V-2	-	-	V-0/4
耐蒸汽消毒性能	-	-	差	极好	好	极好	极好	差	好	好	差

注: ¹⁾ 1 Gy (格雷) = 100 rad (拉德)

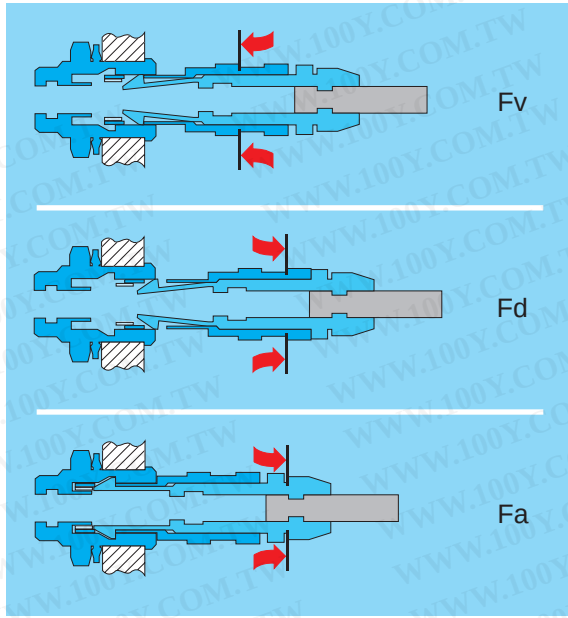
ASTM = 美国材料实验协会

ISO = 国际标准化组织

UL = 保险商试验所

IEC = 国际电工委员会

机械锁定性能



Fv: 平均锁紧力

Fd: 平均拉开力 (轴向拉外壳)

Fa: 平均耐拉力 (轴向拉尾盖)

注: 以上各项力是对没装针芯的外壳测得的。

机械耐用性: 5000次循环

机械耐用性指经额定的循环之后, 锁定装置依然有效 (1次循环=1次插拔, 每小时300次循环)。此数值按标准IEC 60512-7, 实验方法13a. 测得。

标准系列

作用力 (N)	系列									
	00	0S	1D	1S	2C	2S	3S	4S	5S	6S
Fv	9	14	14	15	12	17	20	40	60	70
Fd	7	9	11	10	12	11	14	25	40	55
Fa	120	140	300	250	400	350	500	650	750	900

防水系列

作用力 (N)	系列									
	0E	0L	1E	1L	2E	2L	3E	4E	5E	6E
Fv	14	14	16	16	20	20	32	65	85	100
Fd	9	9	10	10	13	13	25	40	60	75
Fa	250	250	300	300	400	400	550	700	800	900

定位销系列

作用力 (N)	系列							
	00	0B	1B	2B	2G	3B	4B	5B
Fv	9	10	14	15	12	17	39	48
Fd	7	8	11	12	12	14	38	38
Fa	120	250	300	400	400	550	700	800

定位销防水系列

作用力 (N)	系列					
	0K	1K	2K	3K	4K	5K
Fv	14	16	20	32	65	85
Fd	9	10	13	25	40	60
Fa	250	300	400	550	700	800

注: 1N = 0.102 kg

电磁兼容性 (EMC) 和屏蔽效果

只有在满足一定的基本设计原则基础上, 适当选择零部件、电缆和连接器, 才能有效保证设备的电磁兼容性。

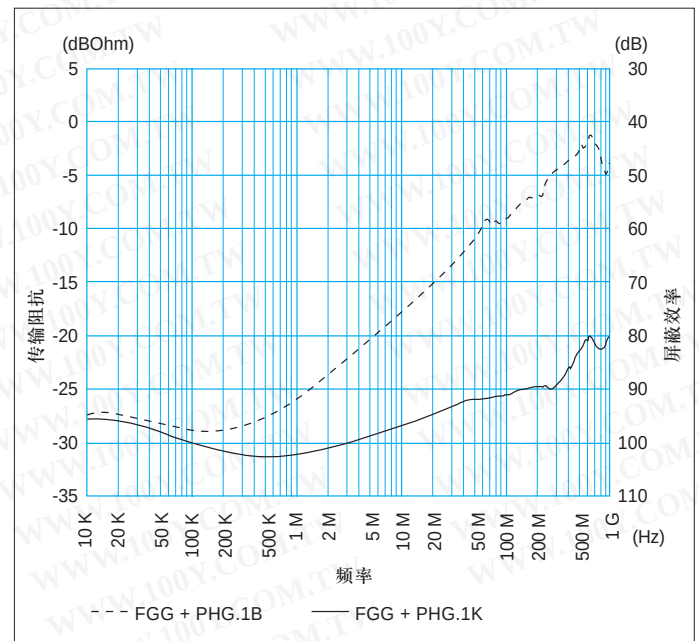
电子电气设备的设计应确保:

- 降低电磁干扰源的发射水平, 令无线电设备、电讯及其他设备能正常工作。
- 提高设备对电磁干扰的免疫能力, 令其能正常工作。

选择连接器时, 应该考虑屏蔽效果、电缆与连接器之间的电连续性。

雷莫 (LEMO) 连接器设计, 通过选用合适的金属外壳和接地环, 确保了最佳的屏蔽效果, 尤其适用对电磁兼容性 (EMC) 有严格要求的应用环境。

连接器的电磁兼容性性能可通过屏蔽效率来评定。屏蔽效率是指连接器外壳外部和内部间的电磁场之比, 测量按IEC 60169-1-3标准进行。



S和B系列连接器的性能参数可参照连接器FGG+PHG.1B的测量指标。

E和K系列连接器的性能参数可参照连接器FGG+PHG.1K的测量指标。

外壳的电连续性

(按 IEC 60512-2 实验方法 2f 测量)

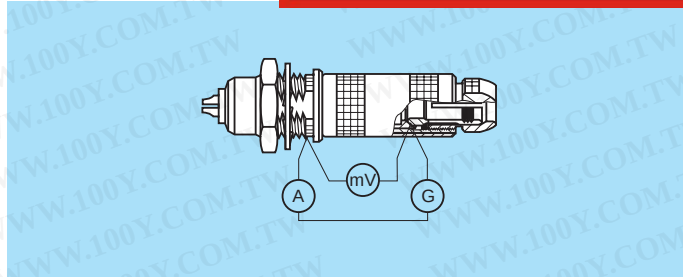
测试电流: 1A

A = 安培表

mV = 毫伏表

G = 电源

标准系列



勝特力材料 886-3-5753170
勝特力电子(上海) 86-21-34970699
勝特力电子(深圳) 86-755-83298787
[Http://www.100y.com.tw](http://www.100y.com.tw)

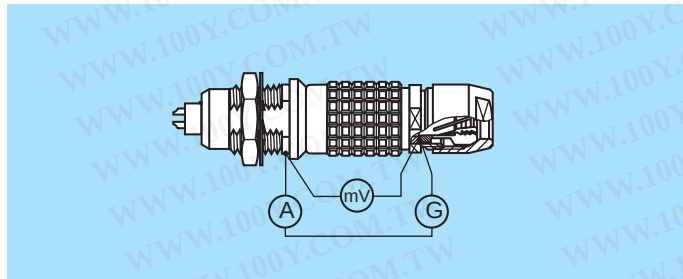
R₁ 带有镀镍接地环、锁定套筒或内套筒的参数值

R₂ 带有镀金接地环、镀镍锁定套筒或内套筒的参数值

系列	R ₁ (mΩ)	R ₂ (mΩ)
00	3.5	2.8
0S	2.8	1.6
1D	2.5	1.1
1S	2.2	1.5
2C	-	-

系列	R ₁ (mΩ)	R ₂ (mΩ)
2S	1.8	1.2
3S	1.6	1.2
4S	1.4	1.0
5S	1.4	1.0
6S	1.0	0.5

定位销系列

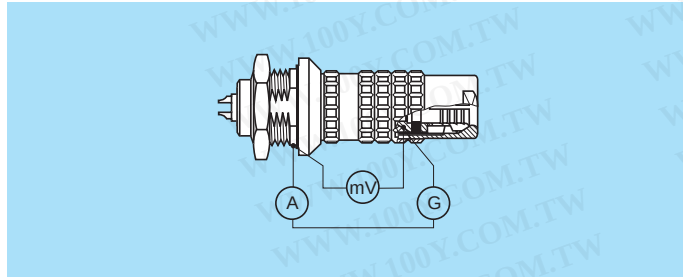


系列	R ₁ (mΩ)	R ₂ (mΩ)
00	3.5	2.8
0B	3.5	1.3
1B	2.5	1.1
2B	2.2	0.9

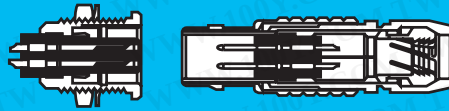
系列	R ₁ (mΩ)	R ₂ (mΩ)
2G	-	-
3B	2.2	0.7
4B	1.5	0.5
5B	1.5	0.3

防水系列

定位销防水系列



系列	R ₁ (mΩ)	R ₂ (mΩ)
0E-0K-0L	2.8	1.6
1E-1K-1L	2.2	1.5
2E-2K-2L	1.8	1.2
3E-3K	1.6	1.2
4E-4K	1.4	1.0
5E-5K	1.4	1.0
6E	1.0	0.5



绝缘体

雷莫 (LEMO) 对绝缘体材料的选择是基于不同类型的连接器对电气性能和热性能的不同要求而做出的。下面是选材时考虑的性能指标:

- 绝缘强度
- 相对电痕指数 (CTI)
- 表面电阻率及体积电阻率
- 连续工作温度
- 吸水性
- 防辐射性能
- 防火等级
- 抗碳氢化合物的性能

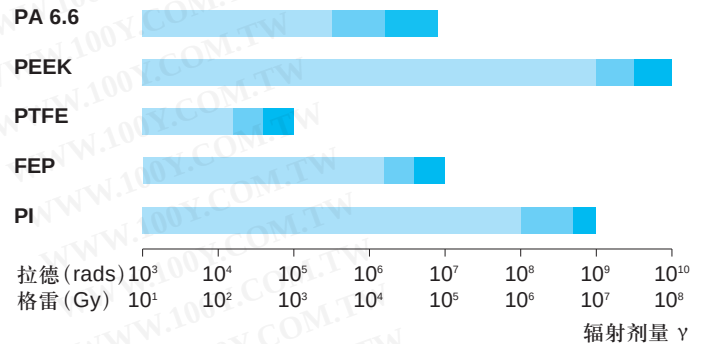
机械和电气性能

热塑材料 (如聚酰胺 PA.6 和 PEEK) 的机械性能指标可通过添加玻璃纤维来提高。在树脂内添加玻璃纤维, 不仅可以提高其机械强度、防辐射性能, 还能降低吸水率, 提高其绝缘强度。

绝缘体材料的选择

热塑材料都有其共性, 其中的一些又与其他绝缘材料特性相同。因此, 绝缘体材料的选择是根据热塑材料在特定指标方面的不同性质做出的, 以便满足不同类型连接器的指标要求。

防辐射性能



- 破坏程度
- 最小至轻度 (几乎总是能用)
 - 轻度至中度 (基本可以使用)
 - 中度至严重 (不能用)

注: 本章是雷莫 (LEMO) 公司对采用的绝缘体热塑材料的总体说明。雷莫 (LEMO) 公司有权更改使用新材料, 以期获得更好的技术性能。有权停用由雷莫 (LEMO) 总公司、雷莫 (LEMO) 分公司以及他们共同编辑出版的产品目录或其他任何出版物中列明的材料, 并且不再另行通知。雷莫 (LEMO) 总公司及其分公司只使用专业公司提供的塑料颗粒、塑料粉或塑料棒, 因此, 无论何种情况下, 雷莫 (LEMO) 公司不对这种原材料本身负责。

技术特性

类型	标准	单位	PA6.6	PEEK	PTFE	FEP	PI
绝缘强度	ASTM D 149 / IEC 60243	kV/mm	15-17	19-25	17.2-24	20	22
体积电阻率 (23°C, 相对湿度50%)	ASTM D 257 / IEC 60093	$\Omega \cdot \text{cm}$	5.8×10^{15}	10^{16}	10^{18}	$> 10^{16}$	$> 10^{16}$
表面电阻率	ASTM D 257 / IEC 60093	Ω	10^{12}	10^{15}	10^{17}	$> 10^{16}$	$> 10^{15}$
导热系数	ASTM C 177	W/K·m	0.21	0.25	0.23	0.24	0.35
相对电痕指数 (CTI)	IEC 60112	V	CTI 600	CTI 150	CTI 500	-	-
介电常数 (10 ⁶ Hz)	ASTM D 150 / IEC 60250	-	4	3.2-3.5	2-2.1	2.1	3.6
耗散因数 (10 ⁶ Hz)	ASTM D 150 / IEC 60250	-	-	< 0.005	< 0.0003	< 0.001	< 0.0034
最高连续工作温度	UL 746	°C	120	250	260	200	350
最高短时工作温度	-	°C	150	300	300	260	480
最低连续工作温度	-	°C	-	-55	-200	-200	-
吸水性 (24小时, 23°C)	ASTM D 570 / ISO R624	%	< 0.7	< 0.3	< 0.01	< 0.01	0.24
防辐射性能	-	Gy	5×10^3	10^7	2×10^2	2×10^4	10^6
防火等级	ASTM D 635 / UL 94	-	-	V-0/3.2	V-0	V-0	-

注: 针芯与针芯之间的绝缘电阻值见第177页。

名称		符号	标准	单芯			多芯							
化学名称	商标			00	S	E	00	S	E	B	K	2C	2G	1D
聚酰胺（灌玻璃）	Nylatron®	PA 6.6	-					●	●					●
聚醚醚酮树脂	Peek®	PEEK	-	○	○	○	●	●	●	●	●	●		
聚四氟乙烯	-	PTFE	ASTM D 1457-83	●	●	●								
四氟乙烯	-	FEP	ASTM D 2116-81					○	○					
聚酰亚胺	VespeI®	PI	-					○	○					

- 常规型号, 首先考虑选择 ○ 特殊型号, 有特殊需求时选择



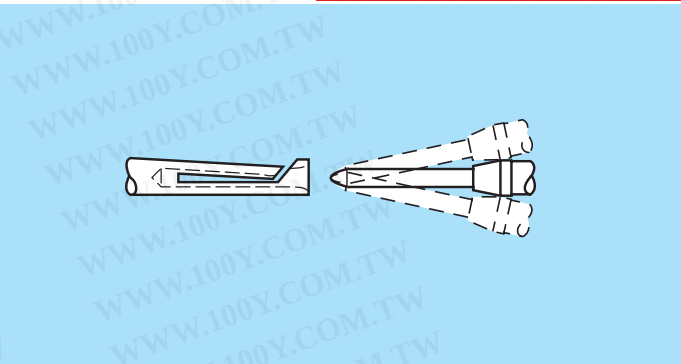
勝特力材料 886-3-5753170
勝特力电子(上海) 86-21-34970699
勝特力电子(深圳) 86-755-83298787
[Http://www.100y.com.tw](http://www.100y.com.tw)

电气针芯

技术说明

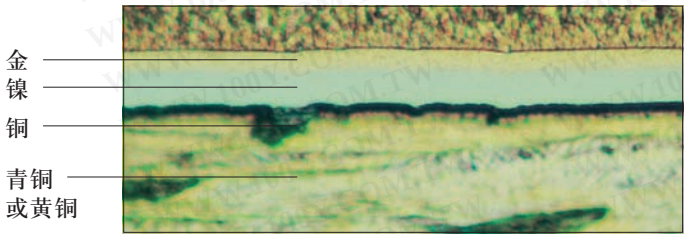
雷莫的圆柱形母针芯安全可靠的机电连接性能是通过下面两个重要的设计特点来实现的：

- 1. 插入端的精密定位结构，即使不经意插入连接器，也能保证完美的同心连接。
- 2. 压力弹簧有相当好的弹性，确保插合时作用在公针芯上的力能保持均匀恒定。压力弹簧前端的设计能对公针的镀金表面提供保护，进而防止过早磨损。



针芯材料及表面处理

雷莫 (LEMO) 母针芯是由铍铜 (QQ-C-530) 或者青铜 (UNS C 54400) 制成的。选择此种材料的原因是因为其弹性系数高、导电性能好、机械强度大。

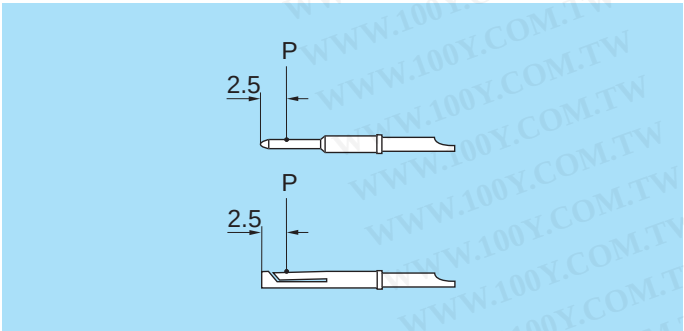


雷莫 (LEMO) 焊接型公针芯和印制板接公针芯是由黄铜 (UNS C 38500) 制成的。压接型公针芯则由黄铜 (UNS C 34500) 或退火黄铜 (UNS C 38500) 制成，其硬度 (HV) 最适于针芯的压接。

类型	材料 (标准)	表面处理 (μm)		
		铜	镍	金 ¹⁾
压接公针芯	黄铜 (UNS C 34500)	0.5	3	1.0
印制板接公针芯	黄铜 (UNS C 38500)			
压接母针芯	青铜 (UNS C 54400)	0.5	3	1.5
印制板接母针芯	铍铜 (FS QQ-C-530)			
回形夹	铍铜 (FS QQ-C-530)	-	-	-
	不锈钢	-	-	-
电线 ²⁾	黄铜	-	3 ³⁾	-

注：表面处理的标准如下：
- 镀镍：FS QQ-N-290A 或 MIL-C-26074C
- 镀金：ISO 4523
1) 最小值
2) 用于印制板接弯针芯
3) 须另外在表面镀锡，厚 6 μm (不含铅)

针芯的镀金层厚度比较



注：P = 检查点

针芯 ØA (mm)	镀金层厚度		
	公针芯 (μm)	母针芯	
		外部 (μm)	内部 (%)
0.5	1.0	1.5	65
0.7	1.0	1.5	70
0.9	1.0	1.5	75
1.3	1.0	1.5	75
1.6	1.0	1.5	75
2.0	1.0	1.5	75
3.0	1.0	1.5	75
4.0	1.0	1.5	75
5.0	1.0	1.5	75
6.0	1.0	1.5	75
8.0	1.0	1.5	75
12.0 ¹⁾	-	-	-

注：1) 针芯镀银

针芯接触电阻与插拔次数的关系

(按 IEC 60512-2 实验方法 2a 测量)

进行给定次数插拔操作及按 IEC 60512-6 实验方法 11f 的盐雾腐蚀实验后测得的平均值。

ØA (mm)	针芯接触电阻 (mΩ)			ØA (mm)	针芯接触电阻 (mΩ)		
	1000 次	3000 次	5000 次		1000 次	3000 次	5000 次
0.5	7.5	8.3	8.7	3.0	2.0	2.2	3.1
0.7	5.6	5.7	6.1	4.0	1.6	2.0	2.8
0.9	4.1	4.2	4.8	5.0	1.4	-	-
1.3	2.8	2.9	3.6	6.0	1.2	-	-
1.6	2.6	2.7	3.5	8.0	0.8	-	-
2.0	2.9	3.1	3.3	12.0	0.7	-	-

针芯与针芯及针芯与外壳间的绝缘电阻

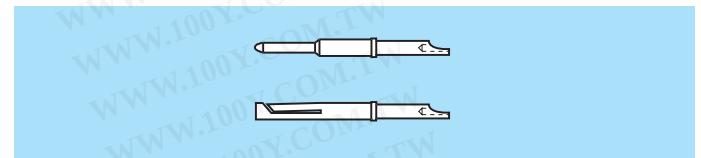
(按 IEC 60512-2 实验方法 3a 测量)

绝缘材料	多芯	单芯
	PEEK	PTFE
新的	$> 10^{12} \Omega$	$> 10^{12} \Omega$
湿度实验之后 ¹⁾	$> 10^{10} \Omega$	$> 10^{10} \Omega$

注: ¹⁾ 按 IEC 60068-2-3 标准: 21 天, 相对湿度 95 %

焊接针芯

针芯的桶形尾部按一定角度加工成杯形, 方便焊料流动。
 关于电缆的焊接尺寸见第 7 页。



压接针芯

单芯连接器的针芯压接方法见照片 1: 四方形压接法 (按 MIL-C-22520F 标准, I 级, 2 类)。
 多芯连接器的针芯压接方法见照片 2: 四锯齿形压接法 (按 MIL-C-22520F 标准, I 级, 1 类)。

压接方法的关键就是要控制好压接力度, 以使绞合芯线和针芯变形均匀。针芯端的圆孔可用来检查是否已将芯线放在了针芯内正确的位置上。判断压接的好坏, 就是看其是否只是芯线截面稍微减小而且几乎没有间隙。

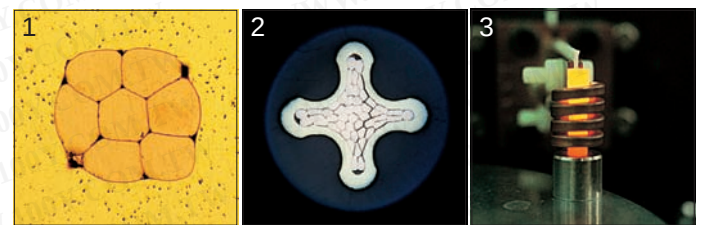
为使青铜或黄铜适于压接, 通常会对它们做退火处理, 以使内应力减小, 降低压接过程中材料的硬化程度。

只有压接区才进行退火处理, 使用的是雷莫研发部自行设计开发的感应加热设备 (见照片 3)。

压接的优点

- 实用、快速地固定针芯, 并且在绝缘体外部操作
- 能在相对高温下使用
- 在压接针芯过程中不会像焊接那样导致绝缘体被加热
- 抗拉伸强度高

压接针芯通常都是标准型压接桶 (形状 1), 适于安装大尺寸的导体。有些压接针芯也有缩小尺寸的压接桶 (形状 2), 以方便安装小尺寸的导体。



压接针芯

压接针芯可有两种形状: 形状 1 是标准型压接桶用于压接大尺寸导体 (见图 1); 形状 2 是缩小型压接桶用于压接小尺寸导体 (见图 2)。

与不同压接针芯适配的电缆压接尺寸范围见第 7 页表格。

图 1

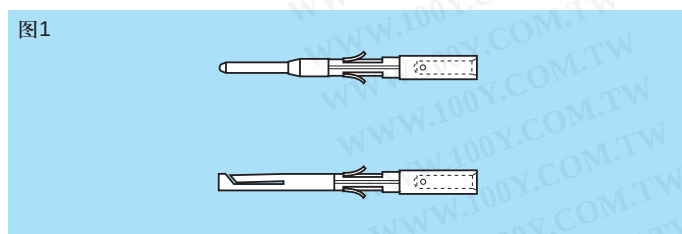
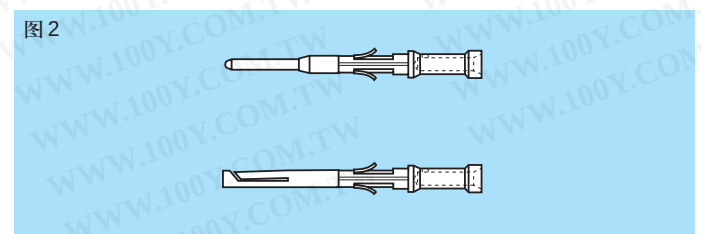


图 2



印制板接针芯

印制板接针芯为直的或弯的形状，通常配套直式或弯式插座，通过焊接的方式连接在柔性或刚性的印刷电路板上。

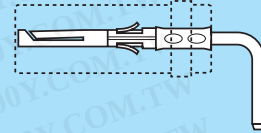
印制板接直针芯都会进行镀金处理，即使经过长期储存也能保证最佳的焊接效果。但是进行波动焊接时，我们建议按安装程序，在焊接前去掉印制板端针芯的镀金层。

印制板接弯针芯是将镀锡无铅黄铜线压接到压接针芯内。

直针芯



弯针芯



测试电压

测试电压 (U_e):
(按 IEC 60512-2 实验方法 4a 测量)

测试电压数值相当于平均击穿电压的 75%。
进行实验的测试电压以 500 V/s 速度增加，持续时间为 1 分钟。

实验是在插头和插座闭合时进行的，只对插头端加压。

电压参数请参照不同系列的绝缘体类型中的表格。
这些参数是在海平面高度测得的。它们适用最高至海拔 2000 米各种应用场合。

如果一个设备要用于一个更高海拔的地方，那么带电部件间的安全空间距离应该乘以下面的系数。
也就是说测试电压要除以这个系数。

工作电压 (U_s):
建议用下面的比率: $U_s = \frac{U_e}{3}$

注意:
有些应用场合，电器设备的安全性对工作电压的要求极为严格。在这种情况下，工作电压的数值是爬电距离由带电部件间的空间距离决定的。请与我们联系，并且指明连接器所需要满足的安全标准。

海拔高度 (m)	系数
2000	1.00
3000	1.14
4000	1.29
5000	1.48

额定电流

(按 IEC 60512-3 实验方法 5a 测量)

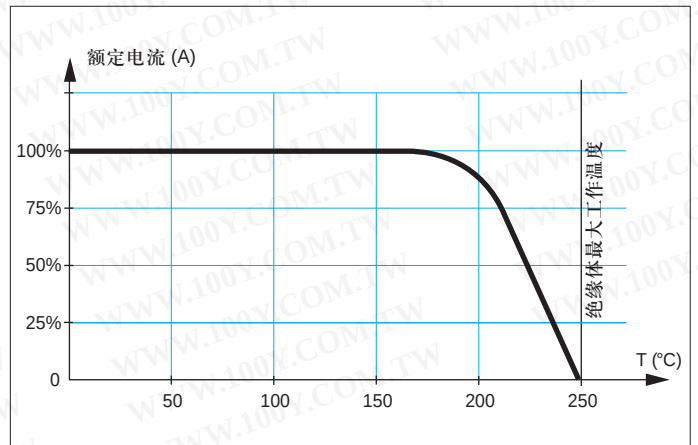
额定电流可以同时加到一个连接器的所有针芯上。
它相当于使连接器的平均温度上升 40 °C。

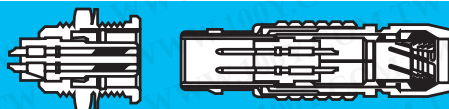
额定电流值在每一个系列的绝缘体类型表中给出。
如果在较高的温度下工作，那么额定电流值会相应降低。当所使用的绝缘体材料在最高使用温度下工作时，工作电流应趋于零。

绝大多数情况下，额定电流与导体尺寸有关 (见第 183 页) 或与印制线路尺寸有关。

注意:
一般情况下，连接器不允许带电时断开。

PEEK 材料作绝缘体的连接器，允许的最大工作电流遵循如下电流与工作温度 (T) 之间的关系曲线。





电缆的固定

使用线夹把电缆固定到雷莫连接器内。这些带锁线夹的设计非常类似于车床上的工装夹具。这种解决方案能在极好地抓牢电缆的同时，又使电缆变形均匀、对称。

00多芯系列也可用六角夹紧（标准 MIL-C-22520F）。

材料及其表面处理

部件	材料 (标准)	表面处理 (μm)				
		镍 ¹⁾		金		
		铜	镍	铜	镍	金
绝缘体固定片	黄铜 (UNS C 38500)	0.5	3	-	-	-
线夹	黄铜 (UNS C 38500)	0.5	3	-	-	-
压接套筒	铜 (UNS C 18700)	0.5	3	0.5	3	0.5
变径器	黄铜 (UNS C 38500)	0.5	3	-	-	-
变径锥	黄铜 (UNS C 38500)	0.5	3	-	-	-
接地环	黄铜 (UNS C 38500)	0.5	3	-	-	-
金属垫	黄铜 (UNS C 38500)	0.5	3	-	-	-
垫圈	硅橡胶 MQ/MVQ	-				
	FPM 氟橡胶 (Viton) ²⁾					

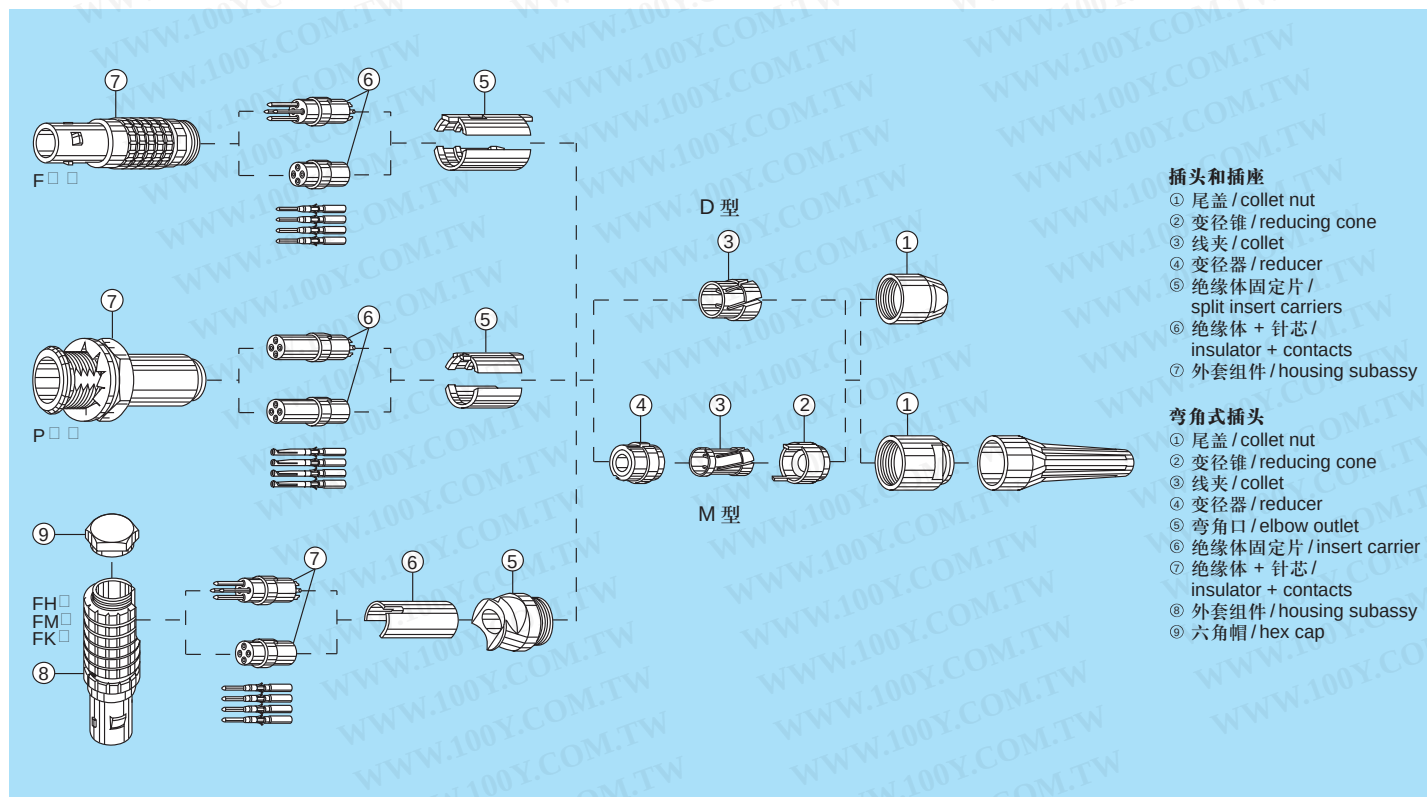
勝特力材料 886-3-5753170
勝特力电子(上海) 86-21-34970699
勝特力电子(深圳) 86-755-83298787
[Http://www.100y.com.tw](http://www.100y.com.tw)

注:
 1) 表面处理标准如下:
 - 镀镍: FS QQ-N-290A
 2) 特殊要求时可提供

电缆固定方式

B 系列 (D 型和 M 型电缆固定)

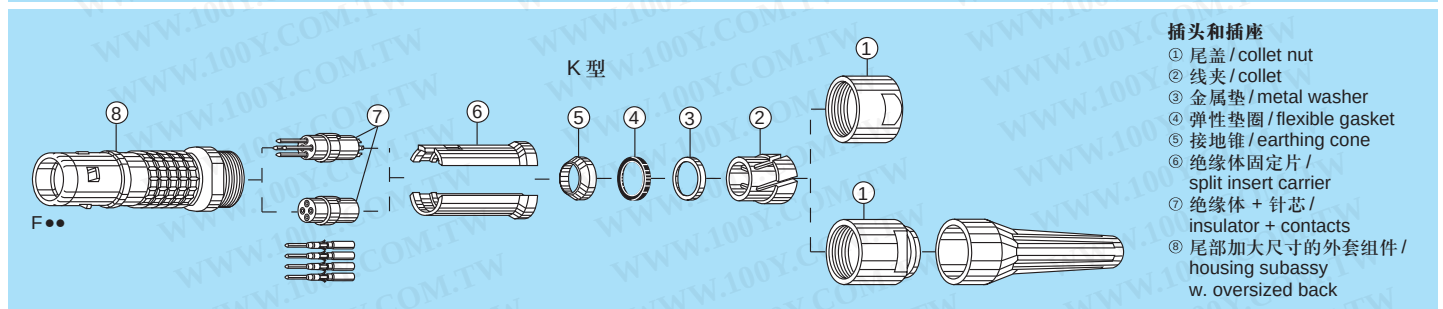
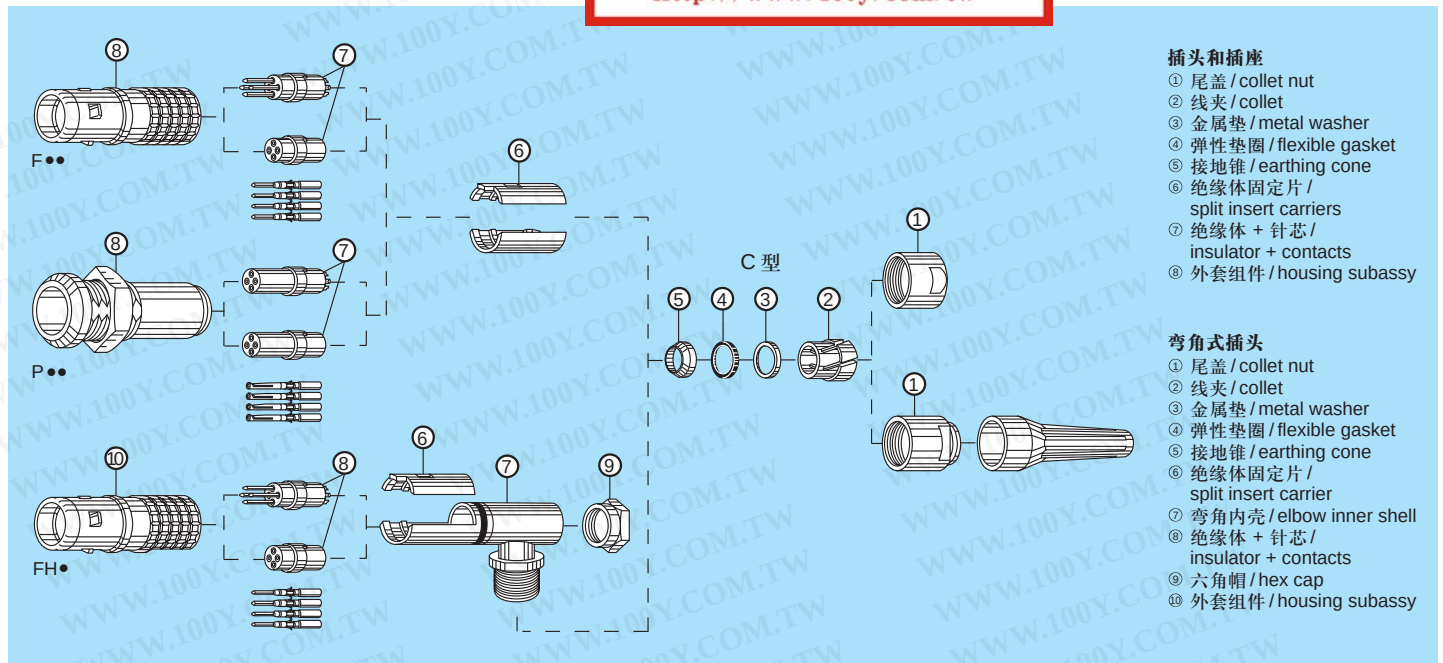
见www.lemo.com里的安装说明



K系列 (C型和K型电缆固定)

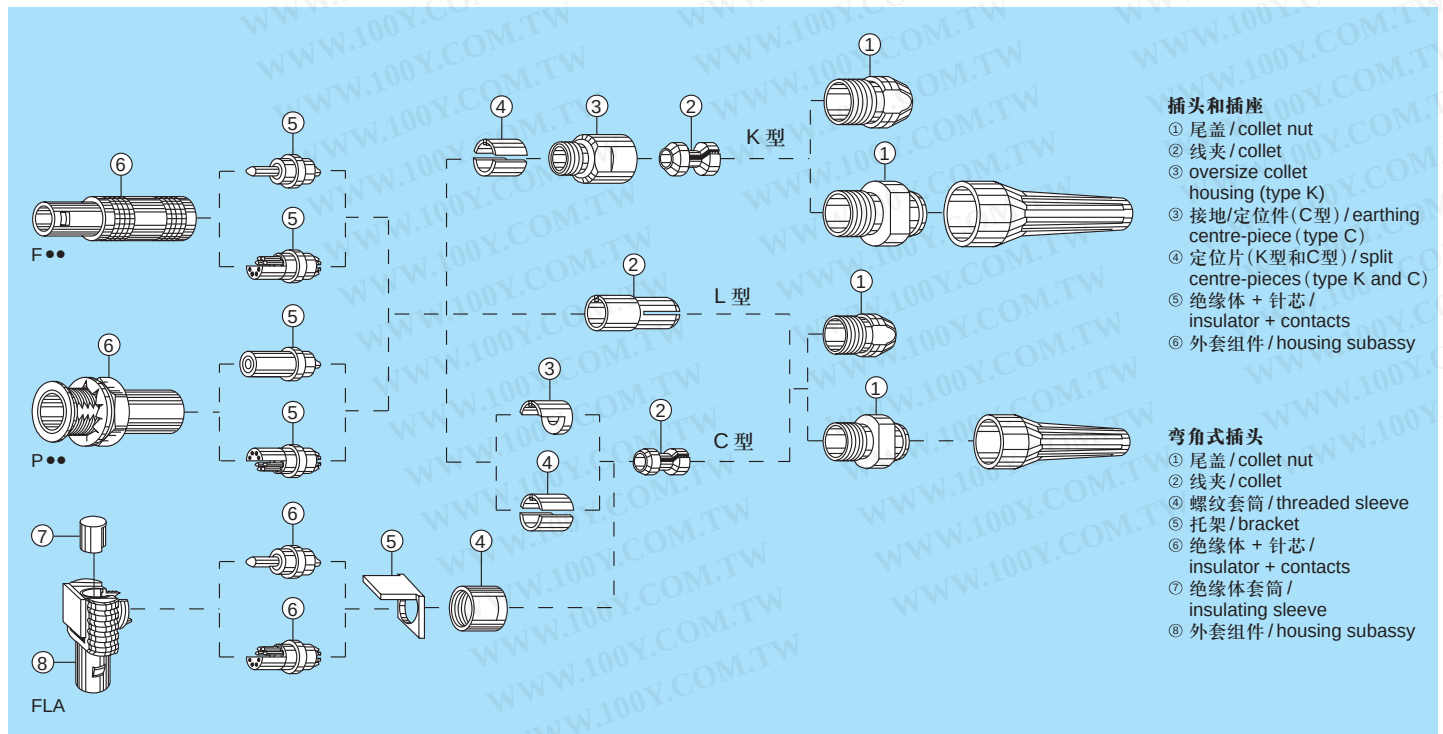
见www.lemo.com里的安装说明

勝特力材料 886-3-5753170
勝特力电子(上海) 86-21-34970699
勝特力电子(深圳) 86-755-83298787
[Http://www.100y.com.tw](http://www.100y.com.tw)



S系列 (C型、L型和K型电缆固定)

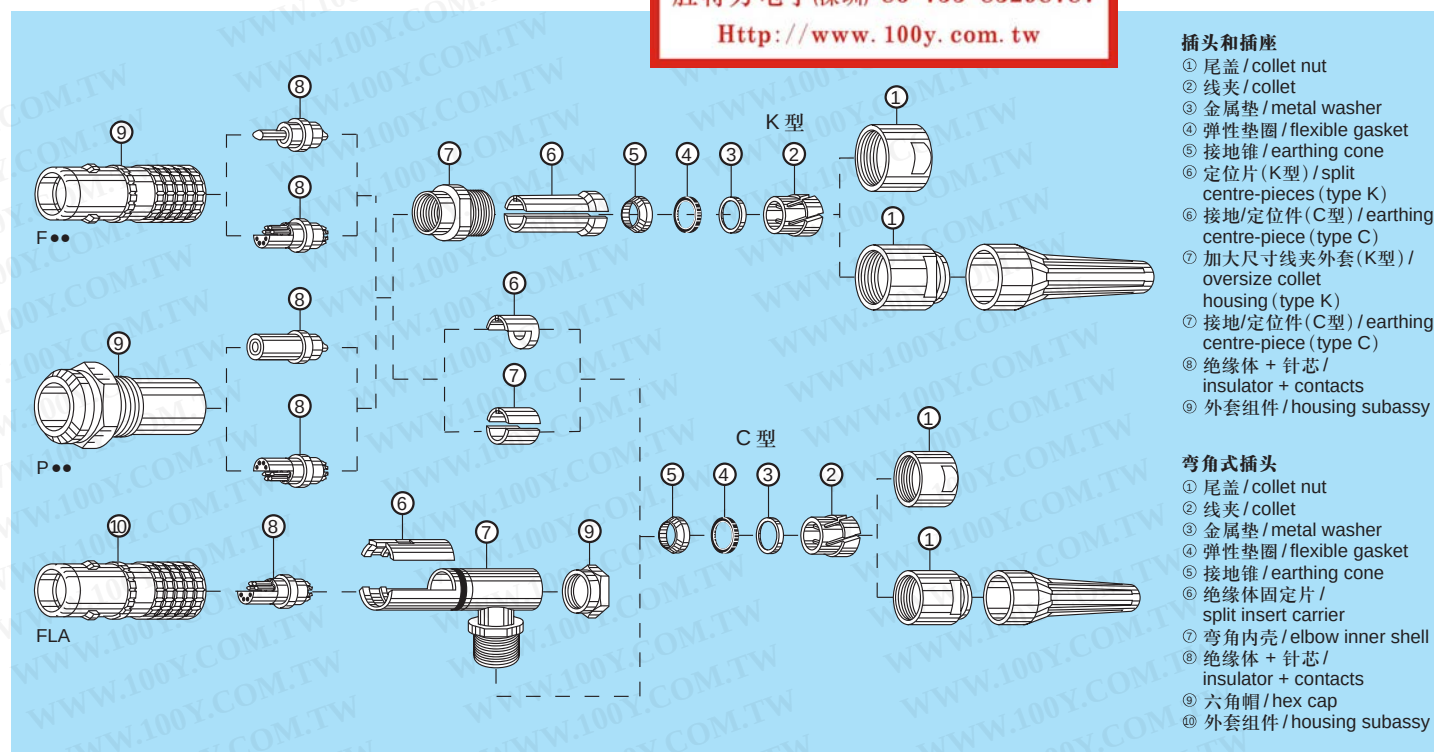
见www.lemo.com里的安装说明



E 系列 (C 型和 K 型电缆固定)

见 www.lemo.com 里的安装说明

勝特力材料 886-3-5753170
勝特力电子(上海) 86-21-34970699
勝特力电子(深圳) 86-755-83298787
[Http://www.100y.com.tw](http://www.100y.com.tw)



金属尾盖最大拧紧扭矩

标准系列

	系列									
	00	0S	1D	1S	2C	2S	3S	4S	5S	6S
扭矩 (Nm)	0.25	0.5	1.5	1.5	2.5	2.5	6	8	10	12

定位销系列

	系列							
	00	0B	1B	2B	2G	3B	4B	5B
扭矩 (Nm)	0.25	0.5	1.5	2.5	2.5	4	7	10

弯角插头六角帽最大拧紧扭矩

标准系列

	系列						
	00	0B	1B	2B	3B	4B	5B
扭矩 (Nm)	0.3	0.6	1	1	1.5	3	5

塑料尾盖最大拧紧扭矩¹⁾

	系列								
	00	0S	1S	2S	3S	1B	2B	3B	4B
扭矩 (Nm)	0.15	0.45	0.50	0.50	1.00	0.50	0.50	1.00	1.50

注:

¹⁾ 在强振动的环境下工作, 建议用环氧树脂固定尾盖, 并拧紧到最大值。最佳扭矩可能随电缆外皮设计而改变。

防水系列

	系列									
	0E	0L	1E	1L	2E	2L	3E	4E	5E	6E
扭矩 (Nm)	0.7	0.7	0.8	0.8	2	2	3	5	8	12

防水定位销系列

	系列					
	0K	1K	2K	3K	4K	5K
扭矩 (Nm)	0.7	0.8	2	3	5	8

1N = 0.102 kg

防水系列

	系列								
	0E	0L	1E	1L	2E	2L	3E	4E	5E
扭矩 (Nm)	0.8	0.8	1	1	1.2	1.2	1.5	3	5

防水定位销系列

	系列					
	0K	1K	2K	3K	4K	5K
扭矩 (Nm)	0.8	1	1.2	1.5	3	5

1N = 0.102 kg

技术参数表

美国线规表 (AWG)

AWG	结构		芯线最大外径		芯线截面积	
	绞芯数量	绞芯 AWG	(mm)	(英寸)	(mm ²)	(平方英寸)
0	259	24	11.277	0.444	52.90	0.0820
1	817	30	9.702	0.382	41.40	0.0641
2	259	26	8.89	0.35	33.20	0.0514
4	133	25	6.9596	0.274	21.5925	0.0335
6	133	27	5.5118	0.217	13.5885	0.0211
8	168	30	4.4450	0.175	8.5127	0.0132
8	133	29	4.3942	0.173	8.6053	0.0133
10	105	30	3.3020	0.13	5.3204	0.0082
10	37	26	2.9210	0.115	4.7397	0.0073
10	1	10	2.6162	0.103	5.2614	0.0082
12	37	28	2.3114	0.091	2.9765	0.0046
12	19	25	2.3622	0.093	3.0847	0.0048
12 ¹⁾	7	20	2.5400	0.10	3.6321	0.0056
12	1	12	2.0828	0.082	3.3081	0.0051
14	41	30	2.0574	0.081	2.0775	0.0032
14	19	27	1.8542	0.073	1.9413	0.0030
14 ¹⁾	7	22	2.0828	0.082	2.2704	0.0035
14	1	14	1.6510	0.065	2.0820	0.0032
16 ¹⁾	65	34	1.5748	0.062	1.3072	0.0020
16	26	30	1.5748	0.062	1.3174	0.0020
16	19	29	1.4986	0.059	1.2293	0.0019
16 ¹⁾	7	24	1.5494	0.061	1.4330	0.0022
16	1	16	1.3208	0.052	1.3076	0.0020
18 ¹⁾	65	36	1.2700	0.05	0.8234	0.0013
18 ¹⁾	42	34	1.2700	0.05	0.8447	0.0013
18	19	30	1.3208	0.052	0.9627	0.0015
18	16	30	1.2954	0.051	0.8107	0.0013
18	7	26	1.2700	0.05	0.8967	0.0014
18	1	18	1.0414	0.041	0.8229	0.0013
20 ¹⁾	42	36	1.0160	0.04	0.5320	8.2x10 ⁻⁴
20	19	32	1.0414	0.041	0.6162	0.0010
20	10	30	1.0160	0.04	0.5067	7.9x10 ⁻⁴
20	7	28	0.9906	0.039	0.5631	8.7x10 ⁻⁴
20	1	20	0.8382	0.033	0.5189	8.0x10 ⁻⁴
22	19	34	0.8382	0.033	0.3821	5.9x10 ⁻⁴
22	7	30	0.7874	0.031	0.3547	5.5x10 ⁻⁴
22	1	22	0.6604	0.026	0.3243	5.0x10 ⁻⁴
24 ¹⁾	42	40	0.6604	0.026	0.2045	3.2x10 ⁻⁴
24	19	36	0.6858	0.027	0.2407	3.7x10 ⁻⁴
24	7	32	0.6350	0.025	0.2270	3.5x10 ⁻⁴
24	1	24	0.5588	0.022	0.2047	3.2x10 ⁻⁴
26	19	38	0.5588	0.022	0.1540	2.4x10 ⁻⁴
26	7	34	0.5080	0.02	0.1408	2.2x10 ⁻⁴
26	1	26	0.4318	0.017	0.1281	2.0x10 ⁻⁴
28 ¹⁾	19	40	0.4318	0.017	0.0925	1.4x10 ⁻⁴
28	7	36	0.4064	0.016	0.0887	1.4x10 ⁻⁴
28	1	28	0.3302	0.013	0.0804	1.2x10 ⁻⁴
30	7	38	0.3302	0.013	0.0568	8.8x10 ⁻⁵
30	1	30	0.2794	0.011	0.0507	7.9x10 ⁻⁵
32	7	40	0.2794	0.011	0.0341	5.3x10 ⁻⁵
32	1	32	0.2286	0.009	0.0324	5.0x10 ⁻⁵
34	1	34	0.1693	0.007	0.0201	3.1x10 ⁻⁵
36	1	36	0.127	0.005	0.0127	2.0x10 ⁻⁵
38	1	38	0.1016	0.004	0.0081	1.3x10 ⁻⁵
40	1	40	0.078	0.003	0.0049	7.5x10 ⁻⁶

IEC-60228 标准线规表

导体数量 x 直径 (mm)	最大直径 (mm)	最大直径 (in)	截面积 (mm ²)	截面积 (平方英寸)
196x0.40	7.50	0.295	25.00	0.0387
7x2.14	6.10	0.240	25.00	0.0387
125x0.40	6.00	0.236	16.00	0.0248
7x1.72	4.90	0.192	16.00	0.0248
1x4.50	4.50	0.177	16.00	0.0248
80x0.40	4.70	0.155	10.00	0.0155
7x1.38	3.95	0.155	10.00	0.0155
1x3.60	3.60	0.141	10.00	0.0155
84x0.30	3.70	0.145	6.00	0.0093
7x1.50	3.15	0.124	6.00	0.0093
1x2.76	2.76	0.108	6.00	0.0093
56x0.30	2.80	0.110	4.00	0.0062
7x0.86	2.58	0.098	4.00	0.0062
1x2.25	2.25	0.082	4.00	0.0062
50x0.25	2.15	0.084	2.50	0.0038
7x0.68	2.04	0.080	2.50	0.0038
1x1.78	1.78	0.070	2.50	0.0038
30x0.25	1.60	0.062	1.50	0.0023
7x0.52	1.56	0.061	1.50	0.0023
1x1.4	1.40	0.055	1.50	0.0023
32x0.20	1.35	0.053	1.00	0.0015
7x0.43	1.29	0.050	1.00	0.0015
1x1.15	1.15	0.045	1.00	0.0015
42x0.15	1.20	0.047	0.75	0.0011
28x0.20	1.15	0.045	0.75	0.0011
1x1.0	1.00	0.039	0.75	0.0011
28x0.15	0.95	0.037	0.50	7.7x10 ⁻⁴
16x0.20	0.90	0.035	0.50	7.7x10 ⁻⁴
1x0.80	0.80	0.031	0.50	7.7x10 ⁻⁴
7x0.25	0.75	0.029	0.34	5.2x10 ⁻⁴
1x0.60	0.60	0.023	0.28	4.3x10 ⁻⁴
14x0.15	0.75	0.029	0.25	3.8x10 ⁻⁴
7x0.20	0.65	0.023	0.22	3.4x10 ⁻⁴
18x0.10	0.50	0.019	0.14	2.1x10 ⁻⁴
14x0.10	0.40	0.015	0.11	1.7x10 ⁻⁴
21x0.07	0.40	0.015	0.09	1.3x10 ⁻⁴
14x0.10	0.40	0.015	0.09	1.3x10 ⁻⁴

注：¹⁾ 不包括在标准里

导体的最大额定电流

带绝缘体的导体的最大电流，室温最高30°C时测得（按照VDE 0100，430和532部分及其他VDE条款）。

标准 截面积 mm ²	第2组 最大电流 A	第3组 最大电流 A
0.08	1.0	1.5
0.14	2.0	3.0
0.25	4.0	5.0
0.34	6.0	8.0
0.50	9.0	12.0
0.75	12.0	15.0
1.00	15.0	19.0
1.50	18.0	24.0
2.50	26.0	32.0

勝特力材料 886-3-5753170
勝特力电子(上海) 86-21-34970699
勝特力电子(深圳) 86-755-83298787
Http://www.100y.com.tw

第2组 - 多芯导体，例如，带外皮实芯电缆，屏蔽电缆，铅皮电缆，...
 第3组 - 单芯导体和单芯电缆在空气环境中敷设，间距至少为直径的一倍

计算公式

导体电阻 R:

$$R = \rho \cdot \frac{l}{A} [\Omega]$$

其中: ρ = 导体电阻系数
 l = 导体长度
 A = 导体横截面积

同轴线阻抗:

$$Z = \frac{138}{\sqrt{\epsilon_r}} \cdot \log \frac{D}{d} [\Omega]$$

ϵ_r = 介电常数
 D = 绝缘层外径
 d = 中心芯线外径

信号衰减:

$$\text{衰减} = 20 \cdot \log \frac{U_1}{U_2} [\text{dB}]$$

U_1 = 输入信号电压
 U_2 = 输出信号电压

单位转换:

毫米(mm) 到 英寸(in):

$$1 \text{ mm} = 0.0394 \text{ in}$$

英寸(in) 到 毫米(mm):

$$1 \text{ in} = 25.4 \text{ mm}$$

厘米(cm) 到 英尺(ft):

$$1 \text{ cm} = 0.0328 \text{ ft}$$

英尺(ft) 到 厘米(cm):

$$1 \text{ ft} = 30.48 \text{ cm}$$

平方厘米(cm²) 到 平方英寸(sq in):

$$1 \text{ cm}^2 = 0.155 \text{ sq in}$$

平方英寸(sq in) 到 平方厘米(cm²):

$$1 \text{ sq in} = 6.4516 \text{ cm}^2$$

巴(bar) 到 磅每平方英寸(psi):

$$1 \text{ bar} = 14.51 \text{ psi}$$

巴(bar) 到 帕斯卡(Pa):

$$1 \text{ bar} = 10^5 \text{ Pa}$$

°C 到 °F:

$$^\circ\text{F} = ^\circ\text{C} \cdot 1.8 + 32$$

牛顿米(Nm) 到 英寸磅(in·lb):

$$1 \text{ Nm} = 8.85 \text{ in} \cdot \text{lb}$$

mbar·l·s⁻¹ 到 Torr·l·s⁻¹

$$1 \text{ mbar} \cdot \text{l} \cdot \text{s}^{-1} = 1.33 \text{ Torr} \cdot \text{l} \cdot \text{s}^{-1}$$

产品安全通知

请认真阅读并遵循所有相关的操作指南，并就您的具体应用查询所有相关的国际、国内安全规则。不正确的处理方法、不当的电缆组件安装以及连接器的错误使用都有可能导致危险发生。

1. 电击和着火危险

接线错误、使用破损部件、外物(如金属碎片)且或残渣(如清洁剂)混入，都可能引发短路、过热以及电击的危险。在带电状态下，绝不允许将插合的部件断开，否则，有可能会出现电弧并导致局部过热，进而使部件损坏。

2. 处理

装配安装之前，应先进行外观检查，查看连接器及其部件有无破损。若有可疑部件，应拒收并送回工厂作进一步检查。连接器的组装及装配工作只能由培训合格的工作人员进行。在安装、装配过程中，必需使用正确的工具，以获得安全、可靠的性能。

3. 使用

有暴露针芯的连接器绝对不允许带电(或成为回路中的供电端)。一般情况下，电压在30 VAC 或者 42 VDC 以上时即被视为危险电压，应采取一切措施避免将有暴露针芯的连接器接有上述电压信号。

4. 测试电压与工作电压

允许的最大工作电压数值取决于本国或国际上对具体应用场合的有效标准。影响工作电压的因数有空间距离和爬电距离。目录中列出的电压参考值可能受印制板设计且或装配电路的影响。目录上所示的测试电压为平均击穿电压的75%。测试电压的加压速度为500 V/s，持续时间1分钟。

5. CE 标记

CE 标记用于一个完整的产品或设备，表示设备遵守一个或几个欧洲安全指令。CE 标志不适用于机电零件，如连接器。

6. 产品改型

雷莫 (LEMO) 集团公司保留修改及改进自己产品或技术规范的权利，无须事先通知。

雷莫 (LEMO) 全系列产品

勝特力材料 886-3-5753170
 勝特力电子(上海) 86-21-34970699
 勝特力电子(深圳) 86-755-83298787
 Http://www.100y.com.tw

	B	S	K	E	F	00	01	0A	3T	4A	4M	3K.93C	1D	Y	05	5G	2G	2C	L	H	R	N	03	V	W	U	F	P	D	K/S	01	DIN
单芯	•			•																												
多芯	•	•	•	•	•												•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
同轴 50Ω						•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
同轴 75Ω										•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•	•
多路同轴																																
混装 同轴+低压																																
三同轴 50Ω																																
三同轴 75Ω																																
混装 三同轴+低压																																
四同轴													•																			
高压																																
高压多芯																																
混装 高压+低压																																
光纤																																
多路光纤																																
混装 光纤+低压																																
热电偶																																
射流																																
多路射流																																
混装 射流+低压																																

颜色越深, 表示应用频率越高

• 包含在本手册中

B 系列 定位销	S 系列	K 系列 定位销	E 系列	F 系列 定位销	00 系列	01 系列
0A 系列	3T 系列	4A 系列 定位销	4M 系列 定位销	3K.93C 系列 定位销	1D 系列	Y 系列
05 系列	5G 系列 定位销	2G 系列 定位销	2C 系列	L 系列 定位销	H 系列	R 系列 定位销
N 系列 定位销	03 系列 定位销	V 系列	W 系列 定位销	U 系列 定位销	电缆组件	K/S 系列 定位销
REDEL F 系列	REDEL P 系列 定位销	REDEL D 系列	01 系列 定位销	VAA 系列	SAA 系列	TAA 系列

UNIPOLE & MULTIPOLE CONNECTORS

勝特力材料 886-3-5753170
勝特力电子(上海) 86-21-34970699
勝特力电子(深圳) 86-755-83298787
[Http://www.100y.com.tw](http://www.100y.com.tw)



勝特力材料 886-3-5753170
勝特力电子(上海) 86-21-34970699
勝特力电子(深圳) 86-755-83298787
[Http://www.100y.com.tw](http://www.100y.com.tw)

LEMO unipole and multipole connectors

This catalogue gives the complete description of LEMO unipole and multipole type connectors. The LEMO manufacturing programme has been extended to almost 40 series divided into 7 product families with specific mating and environmental characteristics. Each series includes a wide variety of plug, socket, coupler and bridge plug models, available in contact configurations adapted to all round cables, including up to 106 conductors, and a maximum diameter of 30 mm. Watertight and vacuumtight models are also available. Since LEMO connectors are perfectly screened and designed to guarantee very low resistance to shell electrical continuity, they are particularly adapted to applications where electro-magnetic compatibility (EMC) is important.

Table of Contents

3 steps to select the right connector	3
B Series (indoor, keyed)	
Part Numbering system	11
Metal Housing models	12
Elbow socket models	22
Plastic housing models	24
Watertight and vacuumtight models	26
Bridge models	29
Threaded-latching models	30
Alignment Key and Polarized Keying System	31
K Series (outdoor, keyed)	
Part Numbering system	33
Metal Housing models	34
Watertight and vacuumtight models	41
Alignment Key and Polarized Keying System	43
B and K Series	
Insert configuration, Housings, Insulators, Contacts	45
S Series (indoor, stepped insert)	
Part Numbering system	57
Metal Housing models	58
Elbow socket models	68
Plastic housing models	70
E Series (outdoor, stepped insert)	
Part Numbering system	75
Metal Housing models	76
Watertight and vacuumtight models	82
L Series (outdoor, stepped insert)	
Part Numbering system	85
Metal Housing models	86
Vacuumtight models	89
Alignment Key and Polarized Keying System	90
S, E and L Series	
Insert configuration, Housings, Insulators, Contacts	91
2G Series (indoor, keyed)	110
2C Series (indoor, stepped insert)	116
1D Series (indoor, 4 concentric contacts)	124
Spare parts	130
Accessories	136
Tooling	146
Panel cut-outs	152
PCB drilling pattern	154
Cable assembly (B, K, S and E series)	161
Technical characteristics	171

Precision modular connectors to suit your application

Since its creation in Switzerland in 1946 the LEMO Group has been recognized as a global leader of circular Push-Pull connectors and connector solutions. Today LEMO and its affiliated companies, REDEL and COELVER, are active in more than 80 countries with the help of over 40 subsidiaries and distributors.

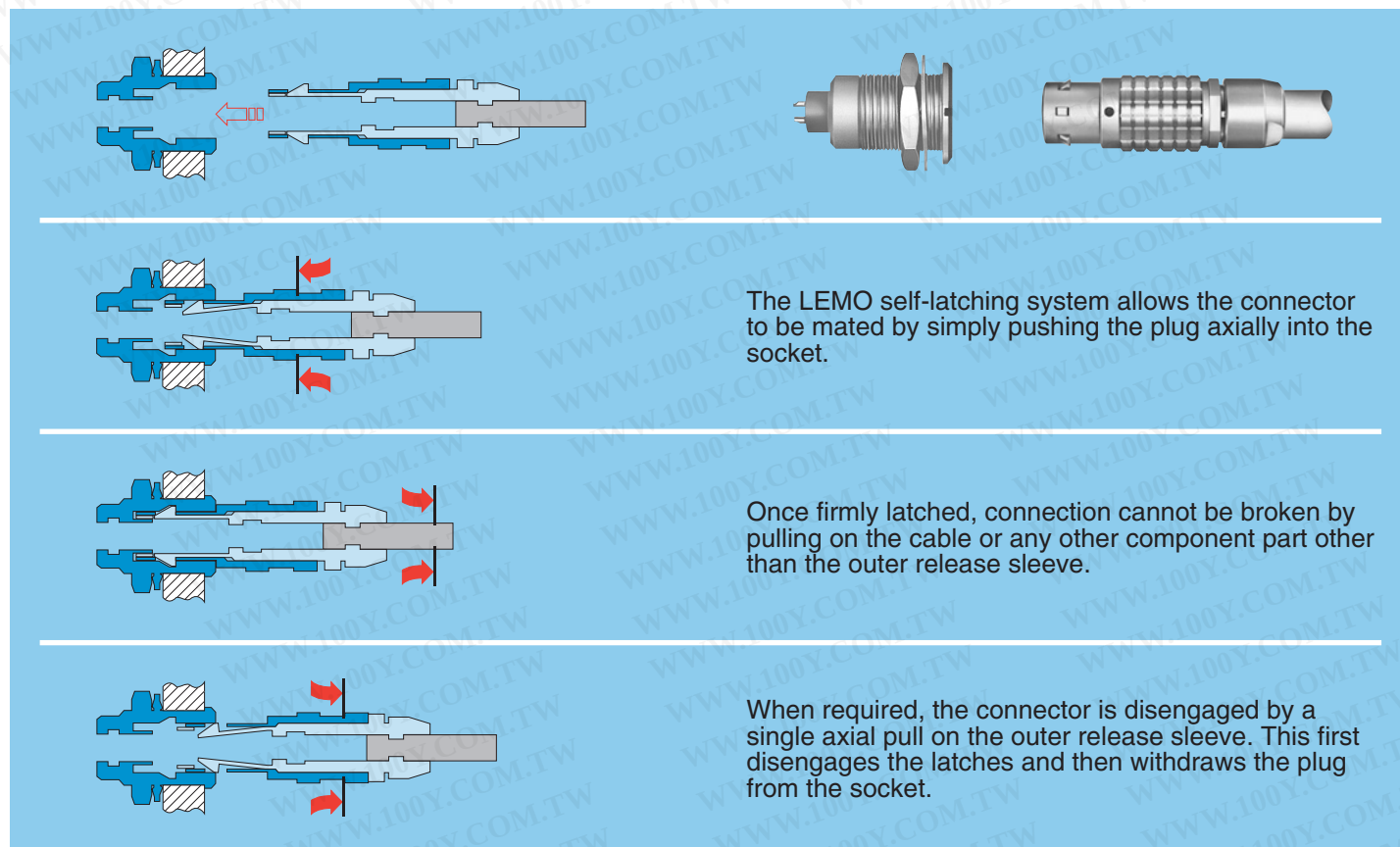
Over 50'000 connectors

The modular design of the LEMO range provides over 50'000 connectors from miniature $\varnothing$ 3 mm to $\varnothing$ 50 mm, capable of handling cable diameters up to 30 mm and for up to 106 contacts.

This vast portfolio enables you to select the ideal connector configuration to suit almost any specific requirement in most markets, including medical devices, test and measurement instruments, machinery, audio video broadcast, telecommunications and military.

LEMO's Push-Pull Self-Latching Connection System

This self-latching system is renowned worldwide for its easy and quick mating and unmating features. It provides absolute security against vibration, shock or pull on the cable, and facilitates operation in a very limited space.



UL Recognition

LEMO connectors are recognized by the Underwriters Laboratories (UL). The approval of the complete system (LEMO connector, cable and your equipment) will be easier because LEMO connectors are approved.

CE marking

CE marking  means that the appliance or equipment bearing it complies with the protection requirements of one or several European safety directives. CE marking  applies to complete products or equipment, **but not to electromechanical components, such as connectors.**

RoHS

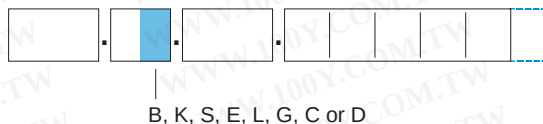
LEMO connector specifications exceed the requirements of the RoHS directives (2002/95/EC) of the European Parliament and the latest amendments. This directive specifies the restrictions of the use of hazardous substances in electrical and electronic equipment marketed in Europe. LEMO guarantees that its connectors are free of mercury, cadmium, lead, hexavalent chromium and polybromide biphenyl (PBB), polybromide diphenyl ether (PBDE), or DecaBDE.

3 steps to select the right connector

● Step 1: Select connector series

Select the appropriate LEMO connector series according to the environmental parameters that will affect your device or cable such as indoor, outdoor, temperature range, ingress protection of the mated connector and of your device. Use the table shown on page 4.

Part number coding

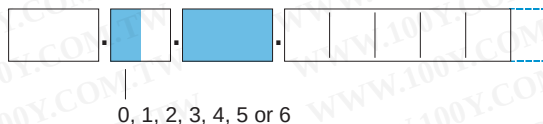


● Step 2: Select connector size

Use the section (mm²) or the AWG of your cable wire to select the optimal contact diameter (values vary between solder, crimp or print contact), see page 7.

Use this optimal contact diameter to determine the right connector size as well as the insert configuration, see page 6.

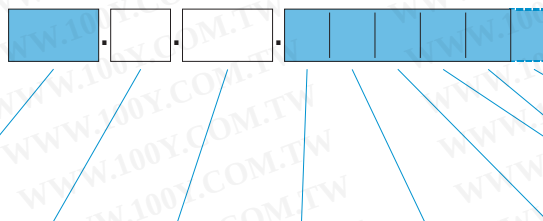
Part number coding



● Step 3: Complete the part number

Now that you know the series, as well as the insulator configuration, complete the part numbering system with the help of the following table.

Part number coding



	Model	Series	Insert configuration	Housing material	Insulator material	Contact	Collet	Variant
B Series (indoor, keyed)	12	12	45	50	50	50	52	54
K Series (outdoor, keyed)	34	34	45	50	50	50	53	54
S Series (indoor, stepped insert)	58	58	91	99	99	99	102	107
E Series (outdoor, stepped insert)	76	76	91	99	99	99	105	107
L Series (outdoor, keyed, stepped insert)	86	86	92	99	99	99	106	107
G Series (indoor, keyed)	111	111	112	112	110	113	113	113
C Series (indoor, stepped insert)	117	117	120	120	116	120	121	121
D Series (indoor, 4 concentric contacts)	125	125	127	127	124	127	127	128

Note: Figures in the above table refer to the catalogue pages.



Step 1: Select Connector Series

LEMO unipole and multipole connectors

The standard keyed Series (B, 00, G)

The characteristic feature of these connector series is a keying system which allows higher contact density and prevents all errors in alignment. The various keying alternatives prevent unwanted cross mating of otherwise similar connectors. It is also possible to use crimp contacts to reduce cable assembly time. These connector series, include the 0B to 5B range as well as the 00 multipole and 2G (shortened version of the 2B series), some vacuumtight models are also available.

The watertight keyed Series (K, L)

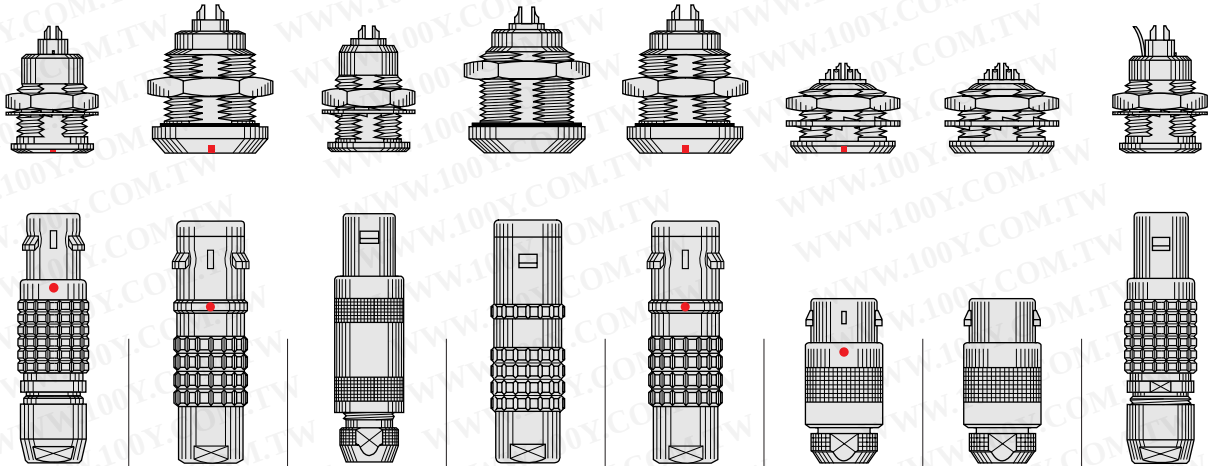
These series are watertight when mated and assembled to an appropriate cable. They include the 0K to 5K series, available in the same types as the 0B to 5B series, and the 0L to 2L series with keying and hermaphroditic insulator.

The standard Series (S, 00, C, D)

The characteristic feature of these connector series is the hermaphroditic insulator in the multipole version. They include principally the 0S and 6S series, as well as the 00 unipole series, the 2C (shortened version) and the 1D quadrax type (with 4 concentric contacts).

The watertight Series (E)

These series are watertight when mated and assembled to an appropriate cable. They include the 0E to 6E series and are available in the same types as the S series.



Series	00 multipole B	K	00 unipole S	E	L	G	C	D
Environment	indoor	outdoor or harsh env.	indoor	outdoor or harsh environment		indoor		
Ingress ¹⁾ protection	IP50	IP66 to IP68	IP50	IP66 to IP68		IP50		
Ingress ²⁾ protection	IP50 to IP68 vacuumtight	IP66 to IP68 vacuumtight	IP50 to IP68 vacuumtight	IP66 to IP68 vacuumtight		IP50	IP50 to IP68 vacuumtight	IP50
Temperature range	- 55 to 250°C	- 55 to 200°C	- 55 to 250°C	- 55 to 200°C		- 55 to 250°C		- 40 to 120°C
Latching	Push-Pull self-latching							
Shell sizes	7 metal and 4 plastic	6 metal	7 metal and 5 plastic	6 metal		3 metal	4 metal	1 metal
Insulator type	Multipole		Unipole or multipole hermaphroditic		Multipole hermaphroditic	Multipole	Multipole hermaphroditic	Quadrax
Contact type	Solder, crimp or print		Solder or print		Solder, crimp or print	Solder or print		Solder
Features	13 keyways	9 keyways	Stepped insert		Stepped insert	1 keyway	Stepped insert	4 concentric contacts
Page	9 to 31	32 to 44	55 to 73	74 to 83	84 to 90	109 to 115	116 to 122	123 to 128

Note:

¹⁾ Mated connector. See ingress protection code page 5.

²⁾ Your device. For selection of connectors for watertight and vacuumtight devices, see page 5.

Definition of Ingress Protection (IP code)

IEC 60529 outlines an international classification system for the sealing effectiveness of enclosures of electrical equipment against the intrusion into the equipment of foreign bodies (i.e. tools, dust, fingers) and moisture. This classification system utilizes the letters «IP» (Ingress Protection) followed by two digits.

Example: IP 50 = IP 5 0
IP letter code
1st digit
2nd digit

Degrees of protection - First digit

The first digit of the IP code indicates the degree to which persons are protected against contact with moving parts and the degree that equipment is protected against solid foreign bodies intruding into an enclosure.

Code	First digit description
0	No special protection
1	Protection from a large part of the body such as hand or from solid objects greater than 50 mm in diameter
2	Protection against objects not greater than 80 mm in length and 12 mm in diameter
3	Protection from entry by tools, wires, etc., with a diameter or thickness greater than 2.5 mm
4	Protection from entry by solid objects with a diameter or thickness greater than 1.0 mm
5	Protection from the amount of dust that would interfere with the operation of the equipment
6	Dust-tight
7	–
8	–

Degrees of protection - Second digit

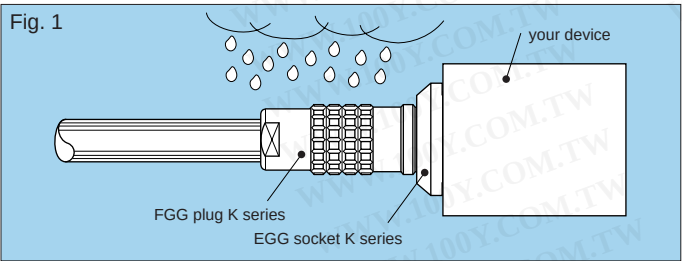
The second digit indicates the degree of protection of the equipment inside the enclosure against the harmful entry of various forms of moisture (e.g. dripping, spraying, submersion, etc.)

Code	Second digit description
0	No special protection
1	Protection from vertically dripping water
2	Protection from dripping water when tilted up to 15°
3	Protection from sprayed water
4	Protection from splashed water
5	Protection from water projected from a nozzle
6	Protection against heavy seas, or powerful jets of water
7	Protection against temporary immersion
8	Protection against complete continuous submersion in water

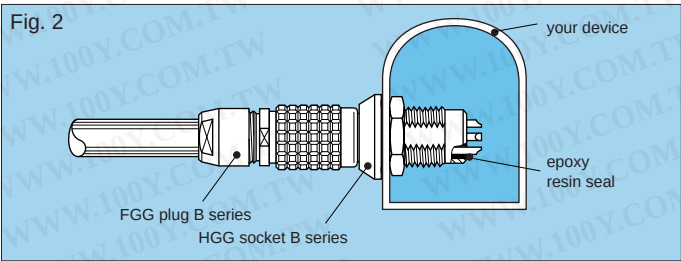
Selection of connectors for watertight or vacuumtight devices

LEMO B and S series are rated IP50 only when mated. LEMO E, K and L series are rated IP66 (and over) only when mated. If a device must be watertight or vacuumtight when the connectors are unmated, it is important to select a watertight or vacuumtight socket. You can consider the following two situations:

A) Figure 1 shows a typical outdoor device. To ensure this device retains IP66 or above when connectors are unmated, it is important to choose a watertight socket from B, S, E, K or L series.



B) Figure 2 shows a device which is subjected to pressure difference such as a near vacuum or pressurized gas and must exhibit no leakage. To ensure the device maintains its sealing, the socket is additionally tested for helium leakage (according to MIL 1344A).



Check temperature range (see section on pages 26, 41, 72, 82 and 89).

Step 2: Select Connector Size

Select the right connector size and insert configuration

To be able to select the right connector size (0 to 6), it is important to define the contact diameter ($\varnothing A$). Find out the available contact diameter ($\varnothing A$) of the LEMO connector depending on the number of contacts required and depending on the rating required (see pages 45 to 49 and 91 to 98).

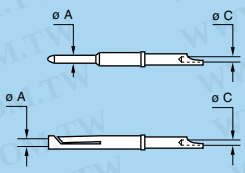
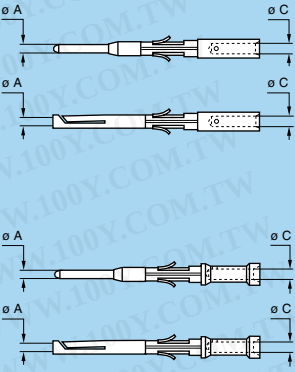
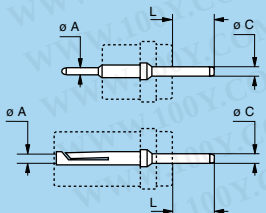
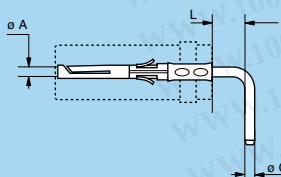
The following table shows the contact diameter ($\varnothing A$), or the solder pot diameter ($\varnothing C$) for the 1D series.

		Number of contacts	Insert configuration	Series																	
			00	0B-0K	1B-1K	2B-2K	3B-3K	4B-4K	5B-5K	00	0S-0E-0L ¹⁾	1S-1E-1L ¹⁾	2S-2E-2L ¹⁾	3S-3E	4S-4E	5S-5E	6S-6E	2G	2C	1D (ø C)	
Unipole	1	113								1.3											
	1	116									1.6										
	1	120										2.0									
	1	130										3.0	3.0								
	1	140											4.0	4.0	4.0						
	1	160												6.0	6.0						
	1	112														12.0					
Multipole	2	302	0.5	0.9	1.3	2.0	3.0		6.0		0.9	1.3	1.6	2.0	4.0	6.0			1.6		
	3	303	0.5	0.9	1.3	1.6	2.0				0.7	0.9	1.3	2.0	3.0	6.0/4.0	6.0		1.3		
	4	304	0.5	0.7	0.9	1.3	2.0	3.0	4.0		0.7	0.9	1.3	2.0	3.0	4.0	8.0		1.3	0.6	
	5	305		0.7	0.9	1.3	1.6					0.9/0.7	1.3	2.0/1.3	3.0/2.0	4.0/3.0					
	6	306		0.5	0.7	1.3	1.6	2.0				0.7	1.3	1.3	2.0	3.0			1.3		
	7	307		0.5	0.7	1.3	1.6	2.0					1.3/0.9	1.3	2.0/1.3						
	8	308			0.7	0.9	1.3						0.9	1.3	1.3	3.0			0.7		
	9	309		0.5			1.3/2.0								1.3						
	10	310			0.5	0.9	1.3	1.6	3.0				0.9	1.3	1.3	2.0			0.7		
	12	312				0.7	0.9	1.3						0.9	1.3	2.0	4.0/5.0		0.7		
	13	313												0.9	1.3						
	14	314			0.5	0.7	0.9		2.0					0.9	1.3	3.0/2.0			0.7		
	16	316			0.5	0.7	0.9	0.9	2.0					0.9	0.9	2.0	3.0				
	18	318				0.7	0.9							0.9	0.9	3.0/1.6	4.0	0.7			
	19	319				0.7															
	20	320					0.7	0.9	1.6						0.9	1.6	3.0				
	22	322					0.7								0.9	3.0/1.6					
	24	324					0.7	0.9							0.9	1.6	3.0				
	26	326				0.5	0.7														
	30	330					0.7	0.9	1.3								1.3	2.0			
	32	332				0.5												2.0			
	36	336															1.3	2.0 ²⁾			
	40	340						0.7	1.3								1.3	2.0			
	44	344															1.3				
	48	348						0.7	1.3								1.3	2.0			
	50	350							0.9												
	54	354							0.9												
	60	360																1.6			
	62	362																1.6			
	64	364								0.9								1.3			
	72	372																1.3			
	106	106																0.9			

Note: ¹⁾ L series not available in unipole version. ²⁾ 2.0 is for 6S series, for 6E the values are 1.3 and 5.0.

Verify the fitting to your wire

Verify if the selected contact diameter ($\varnothing A$) of the LEMO connector fits to your cable wire diameter (AWG number or max. available section).

Contact type	Contact			Conductor						F _r ¹⁾ (N)	Note	
	ø A (mm)	ø C (mm)	Form per fig.	Solid		Stranded						
				AWG max.	Section max. (mm ²)	AWG		Section (mm ²)				
						min.	max.	min.	max.			
Solder		0.5 ²⁾	0.40 ²⁾	—	28	0.09	—	30	—	0.05	—	●
		0.5	0.45	—	28	0.09	—	28	—	0.09	—	
		0.7 ³⁾	0.60 ³⁾	—	24	0.25	—	26	—	0.14	—	
		0.7	0.80	—	22	0.34	—	22 ⁴⁾	—	0.34	—	
		0.9	0.80	—	22	0.34	—	22 ⁴⁾	—	0.34	—	
		1.3	1.00	—	20	0.50	—	20 ⁴⁾	—	0.50	—	
		1.6	1.40	—	16	1.00	—	18	—	1.00	—	
		2.0	1.80	—	14	1.50	—	16	—	1.50	—	
		3.0	2.70	—	10	4.00	—	12	—	4.00	—	
		4.0	3.70	—	10	6.00	—	10	—	6.00	—	
		5.0	5.20	—	—	—	—	8	—	10.00	—	
		6.0	5.20	—	—	—	—	8	—	10.00	—	
		8.0	7.00	—	—	—	—	4	—	21.00	—	
		12.0	11.50	—	—	—	—	0	—	50.00	—	
Crimp		0.5 ⁵⁾	0.45	1	—	—	32	28	0.035	0.09	12	●
		0.7	0.80	1	—	—	26	22 ⁴⁾	0.140	0.34	22	●
			0.45	2	—	—	32	28	0.035	0.09	22	○
		0.9	1.10	1	—	—	24	20	0.250	0.50	30	●
			0.80	2	—	—	26	22 ⁴⁾	0.140	0.34		○
			0.45	2	—	—	32	28	0.035	0.09		○
		1.3	1.40	1	—	—	20	18	0.500	1.00	40	●
			1.10	2	—	—	24	20	0.250	0.50		○
			0.80	2	—	—	26	22 ⁴⁾	0.140	0.34		○
		1.6	1.90	1	—	—	18	14 ⁴⁾	1.000	1.50	50	●
			1.40	2	—	—	22	18	0.340	1.00		○
		2.0	2.40	1	—	—	16	12 ⁴⁾	1.500	2.50	65	●
			1.90	2	—	—	18	14	1.000	1.50		○
		3.0	2.90	1	—	—	14	10 ⁴⁾	2.500	4.00	75	●
		4.0	4.00	1	—	—	12	10	4.000	6.00	90	●
Print		L dimensions and C are detailed in the section on PCB drilling pattern. See page 156 and 159.										●
Print (elbow)		L dimensions and C are detailed in the section on PCB drilling pattern. See page 157 and 160.										●

Note:

- 1) contact retention force in the insulator (according to IEC 60512-8 test 15 a).
- 2) for 00 multipole series.
- 3) for S, E, 2C, 2G and 1D series.
- 4) for a given AWG, the diameter of some stranded conductor designs is larger than the solder cup diameter. Make sure that the maximum conductor diameter is smaller than $\varnothing C$.
- 5) for 00 multipole series or for 0B and 1B series with male contacts.

Verify the fitting to your cable

Verify if the selected connector size fits to your cable diameter.

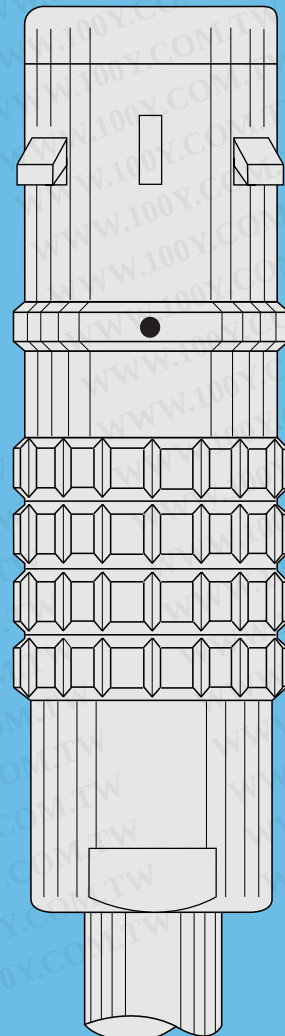
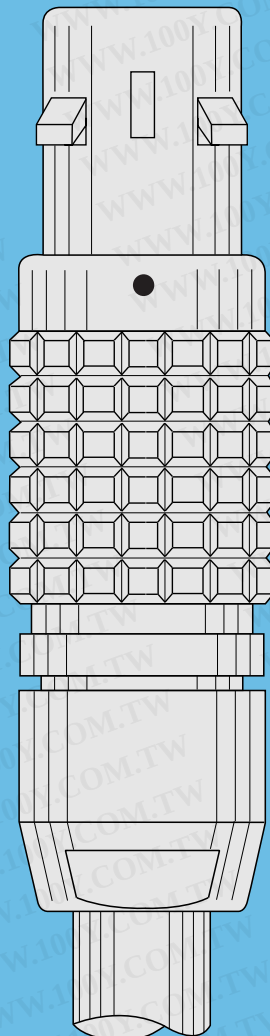
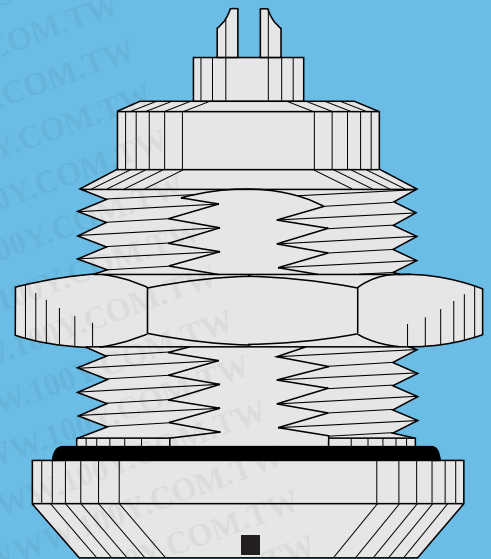
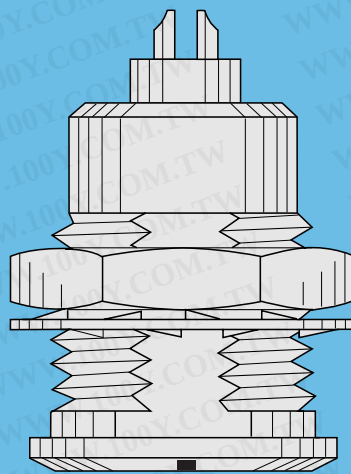
Series	Cable diameter range (mm)			
	Collet		Collet for fitting a bend relief	
	min.	max.	min.	max.
00 ¹⁾	1.1	3.4	1.1	3.4
0B	1.5	5.5	1.5	5.0
1B	2.2	7.5	2.2	7.0
2B	1.5	9.7	1.5	9.0
3B	4.1	11.7	4.1	11.0
4B	5.1	16.0	5.1	15.0
5B	9.6	25.0	9.6	15.5
0K	1.0	5.0	1.0	5.0
1K	1.3	8.5 ³⁾	1.3	8.5
2K	1.3	10.5 ³⁾	1.3	10.5
3K	2.6	15.0 ³⁾	2.6	15.0
4K	4.6	23.5 ³⁾	4.6	15.0
5K	9.6	23.5	—	—

Series	Cable diameter range (mm)			
	Collet		Collet for fitting a bend relief	
	min.	max.	min.	max.
00 ²⁾	1.1	4.1	1.1	4.1
0S	1.3	6.7	1.3	6.1
1S	1.3	8.5	1.3	8.0
2S	1.3	10.5	1.3	10.0
3S	2.5	13.0	2.5	13.0
4S	4.1	22.0	4.1	13.0
5S	6.1	30.0	—	—
6S	11.1	30.0	—	—
0E	1.0	5.0	1.0	5.0
1E	1.3	8.5 ³⁾	1.3	8.5
2E	1.3	10.5 ³⁾	1.3	10.5
3E	2.6	15.0 ³⁾	2.6	15.0
4E	4.6	23.5 ³⁾	4.6	15.0
5E	9.6	23.5	—	—
6E	13.0	30.0	—	—
0L	1.0	5.0	1.0	5.0
1L	1.3	8.5 ³⁾	1.3	8.5
2L	1.3	10.5 ³⁾	1.3	10.5

Series	Cable diameter range (mm)			
	Collet		Collet for fitting a bend relief	
	min.	max.	min.	max.
2C	2.2	8.1	2.2	8.1
2G	4.5	7.9	4.5	7.9
1D	3.1	7.5	3.1	7.0

Note:
¹⁾ for multipole only.
²⁾ for unipole only.
³⁾ for these series the maximum cable diameter require models with oversized cable collet (type K).

勝特力材料 886-3-5753170
勝特力电子(上海) 86-21-34970699
勝特力电子(深圳) 86-755-83298787
[Http://www.100y.com.tw](http://www.100y.com.tw)



B SERIES

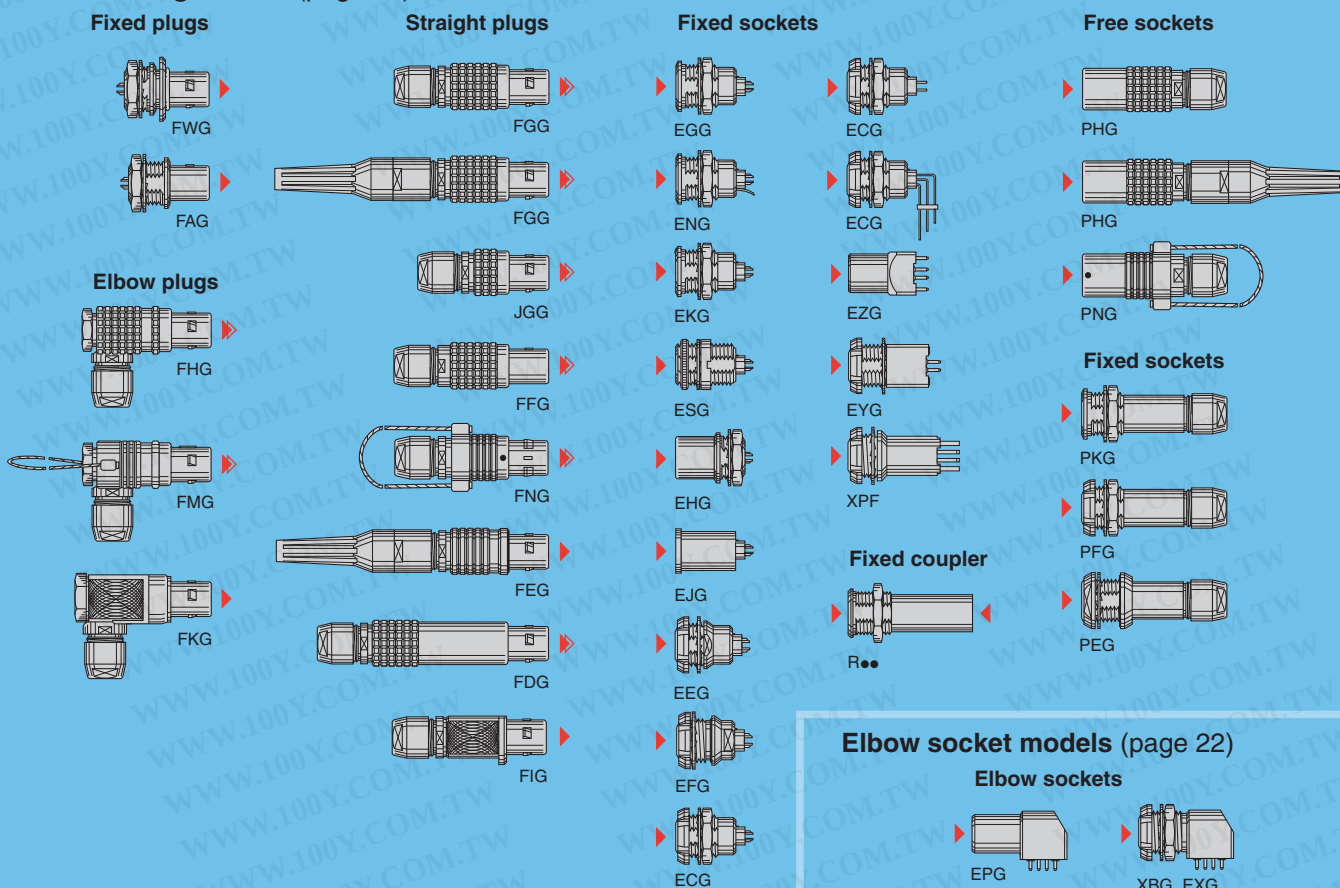
K SERIES (watertight)

B Series

B series connectors provide the following main features:

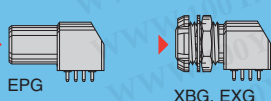
- security of the Push-Pull self-latching system
- solder, crimp or print contacts (straight or elbow)
- multiple key options to avoid cross mating of similar connectors
- 360° screening for full EMC shielding.
- multipole types 2 to 64 contacts
- high packing density for space savings
- keying system («G» key standard) for connector alignment

Metal housing models (page 12)

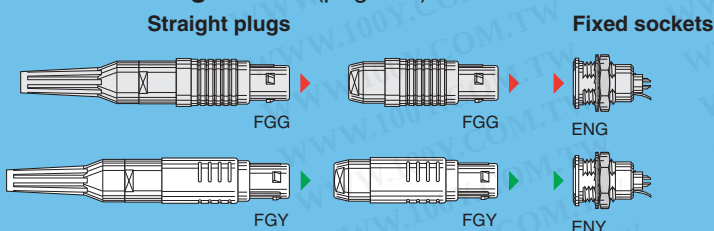


Elbow socket models (page 22)

Elbow sockets

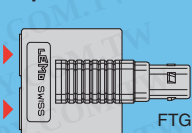


Plastic housing models (page 24)

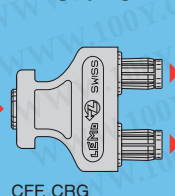


Bridge models (page 29)

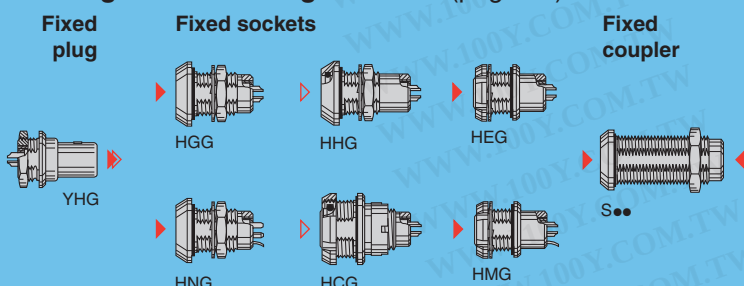
Plug with two parallel sockets



Bridge plugs

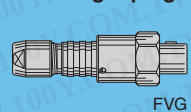


Watertight or vacuumtight models (page 26)



Threaded-latching models (page 30)

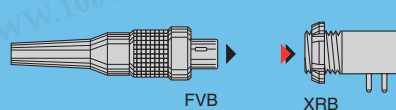
Straight plugs



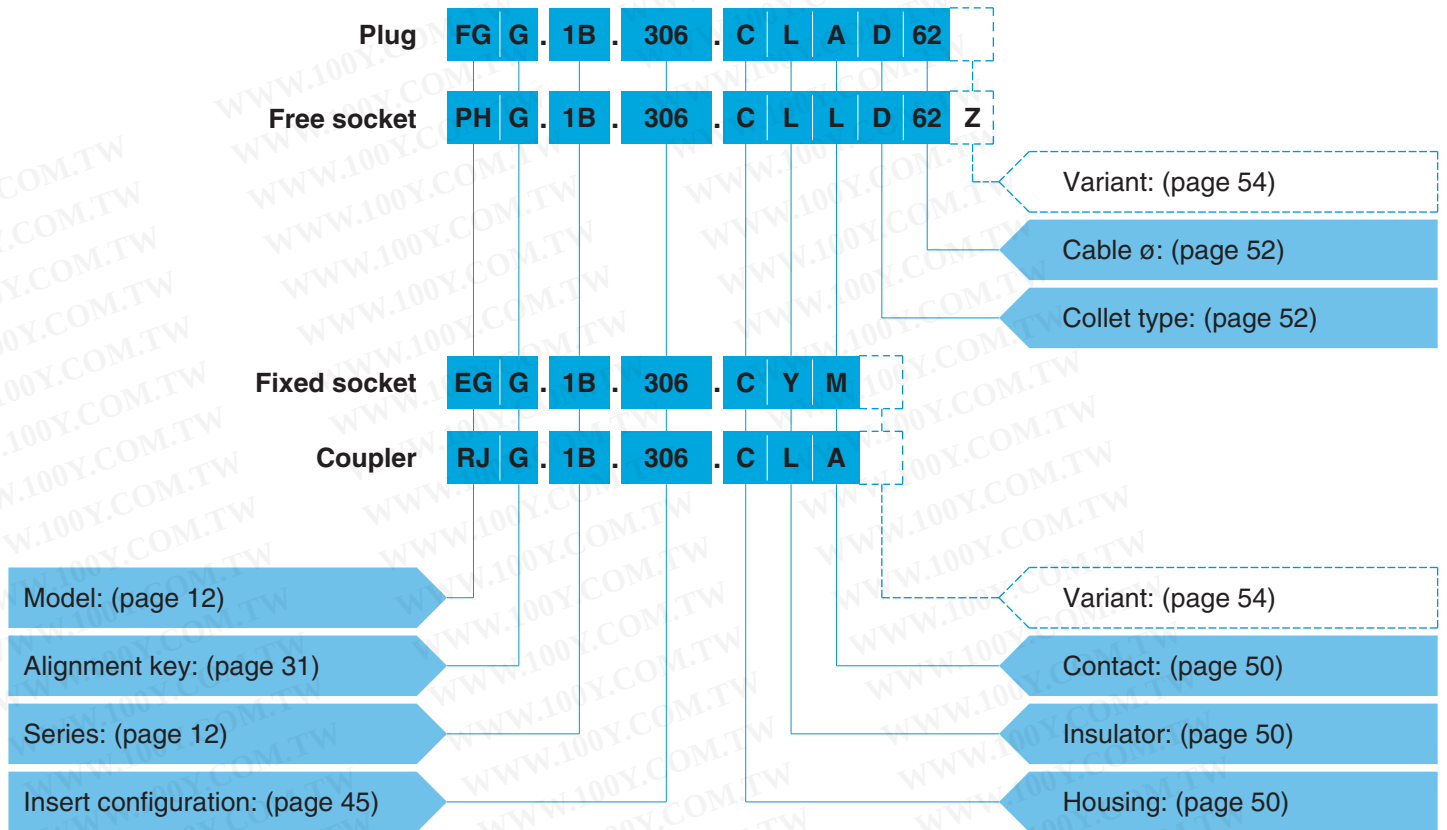
Fixed socket



Elbow socket



Part Numbering System



Part Number Example

Straight plug with cable collet:

FGG.1B.306.CLAD62 = straight plug with key (G) and cable collet, 1B series, multipole type with 6 contacts, outer shell in chrome-plated brass, PEEK insulator, male solder contacts, D type collet for 6.0 mm diameter cable.

Free socket:

PHG.1B.306.CLLD62Z = free socket with key (G) and cable collet, 1B series, multipole type with 6 contacts, outer shell in chrome-plated brass, PEEK insulator, female solder contacts, D type collet for 6.0 mm diameter cable and nut for fitting a bend relief.

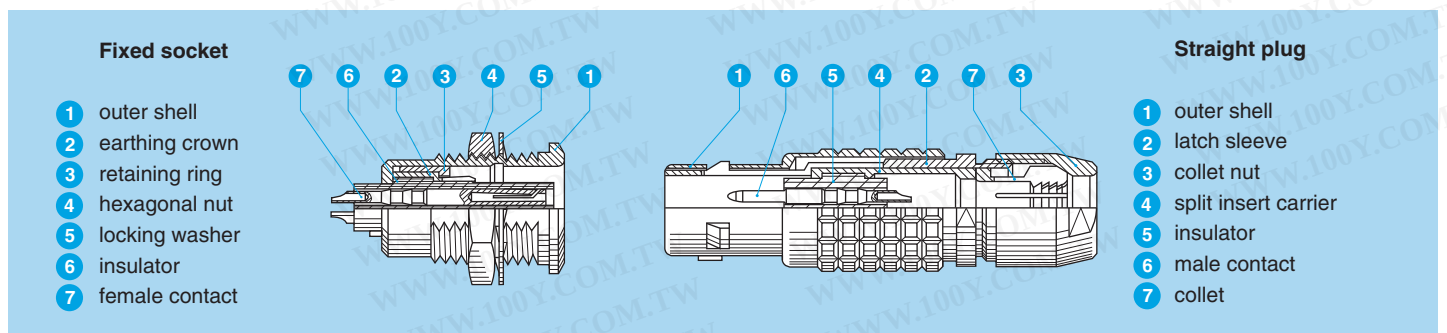
Fixed socket:

EGG.1B.306.CYM = fixed socket, nut fixing, with key (G), 1B series, multipole type with 6 contacts, outer shell in chrome-plated brass, PEEK extended insulator, female crimp contacts.

Fixed coupler:

RJG.1B.306.CLA = straight fixed coupler with keys (J) at the flange end and key (G) at the other end, 1B series, multipole type with 6 contacts, outer shell in chrome-plated brass, PEEK insulator, male-female contacts.

Part Section Showing Internal Components



Metal housing models

勝特力材料 886-3-5753170
 勝特力电子(上海) 86-21-34970699
 勝特力电子(深圳) 86-755-83298787
 Http://www.100y.com.tw

Technical Characteristics

Mechanical and Climatical

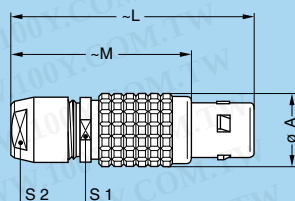
Characteristics	Value	Standard
Endurance	> 5000 cycles	IEC 60512-5 test 9a
Humidity	up to 95% at 60° C	
Temperature range	-55° C, +250° C	
Resistance to vibration	10-2000 Hz, 15 g	IEC 60512-4 test 6d
Shock resistance	100 g, 6 ms	IEC 60512-4 test 6c
Salt spray corrosion test	> 144h	IEC 60512-6 test 11f
Protection index (mated)	IP50	IEC 60529
Climatical category	55/175/21	IEC 60068-1

Electrical

Characteristics	Value	Standard
Shielding efficiency	at 10 MHz	> 75 dB
	at 1 GHz	> 40 dB
		IEC 60169-1-3

Note:

the various tests have been carried out with FGG and EGG connector pairs, with chrome-plated brass shell and PEEK insulator. Detailed electrical characteristics, as well as materials and treatment are presented in the chapter Technical Characteristics on page 171.



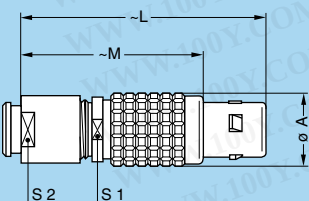
FGG Straight plug, key (G) or keys (A...M and R), cable collet

Reference		Dimensions (mm)				
Model	Series	A	L	M	S1	S2
FGG	00 ¹⁾	6.4	28.5	20.5	5.5	5
FGG	0B	9.5	36.0	26.0	8.0	7
FGG	1B	12.0	43.0	32.0	10.0	9
FGG	2B	15.0	50.0	38.0	13.0	12
FGG	3B	18.0	58.0	43.0	15.0	14
FGG	4B	25.0	75.0	57.0	21.0	20
FGG	5B	35.0	103.0	78.0	31.0	30

M1

Cable assembly (page 161)

Note: ¹⁾ the surface design of the 00 series is different.



FGG Straight plug, key (G) or keys (A...M), cable collet and nut for fitting a bend relief ²⁾

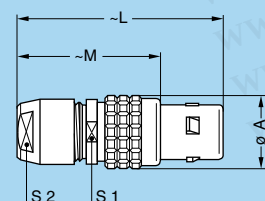
Reference		Dimensions (mm)				
Model	Series	A	L	M	S1	S2
FGG	00 ¹⁾	6.4	28.7	20.7	5.5	6
FGG	0B	9.5	35.0	25.0	8.0	7
FGG	1B	12.0	42.0	31.0	10.0	9
FGG	2B	15.0	49.0	37.0	13.0	12
FGG	3B	18.0	56.5	41.5	15.0	15
FGG	4B	25.0	71.0	53.0	21.0	20

M1

Cable assembly (page 161)

Note: ¹⁾ the surface design of the 00 series is different.
²⁾ to order, add a «Z» at the end of the reference.

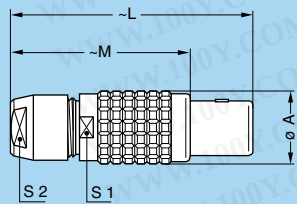
The bend relief must be ordered separately (see page 141).



JGG Straight plug, short version, key (G), cable collet

Reference		Dimensions (mm)				
Model	Series	A	L	M	S1	S2
JGG	0B	9.5	32.0	22.0	8.0	7

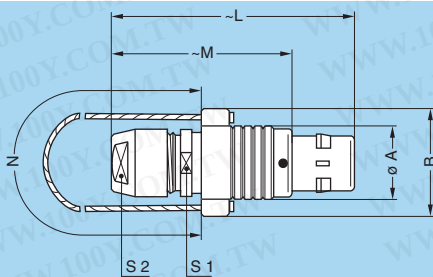
M4 Cable assembly (page 161)



FFG Straight plug, non-latching, key (G) or keys (A...M), cable collet

Reference		Dimensions (mm)				
Model	Series	A	L	M	S1	S2
FFG	0B	9.5	36	26	8	7
FFG	1B	12.0	43	32	10	9
FFG	2B	15.0	50	38	13	12
FFG	3B	18.0	58	43	15	14
FFG	4B	25.0	75	57	21	20

M1 Cable assembly (page 161)

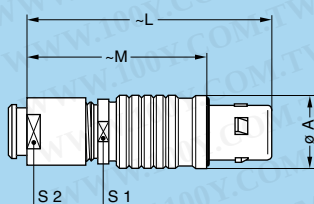


FNG Straight plug, key (G) or keys (A...M and R), cable collet and lanyard release

Reference		Dimensions (mm)						
Model	Series	A	B	L	M	N	S1	S2
FNG	0B	9.5	15.5	36.0	26.0	140	8	7
FNG	1B	12.0	18.0	43.0	32.0	140	10	9
FNG	2B	15.0	21.0	49.0	37.0	160	13	12
FNG	3B	18.0	25.0	58.0	43.0	190	15	14
FNG	4B	25.0	32.0	75.0	57.0	230	21	20
FNG	5B	35.0	42.0	103.0	78.0	300	31	30

M1 Cable assembly (page 161)

Note: cable material: stainless steel with Polyamide sheath.

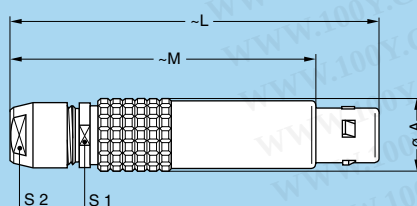


FEG Straight plug, key (G) or keys (A...L), cable collet, front seal and nut for fitting a bend relief ¹⁾ (IP 54 protection index when mated)

Reference		Dimensions (mm)				
Model	Series	A	L	M	S1	S2
FEG	0B	11.0	35.0	25.0	8	7
FEG	1B	13.5	42.0	33.0	10	9
FEG	2B	16.5	48.0	36.0	13	12
FEG	3B	19.0	56.5	41.5	15	15

M1 Cable assembly (page 161)

Note: ¹⁾ to order, add a «Z» at the end of the reference. The bend relief must be ordered separately (see page 141).



FDG Straight plug, long version, key (G) or keys (A...L), cable collet

Reference		Dimensions (mm)				
Model	Series	A	L	M	S1	S2
FDG	1B	12	68	57	10	9
FDG	2B	15	79	67	13	12

M2 Cable assembly (page 162)

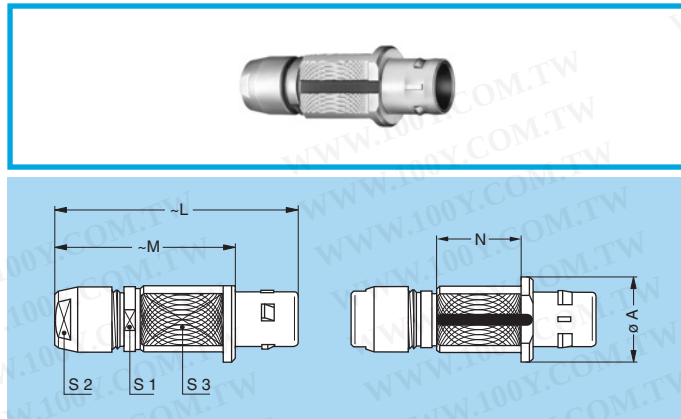
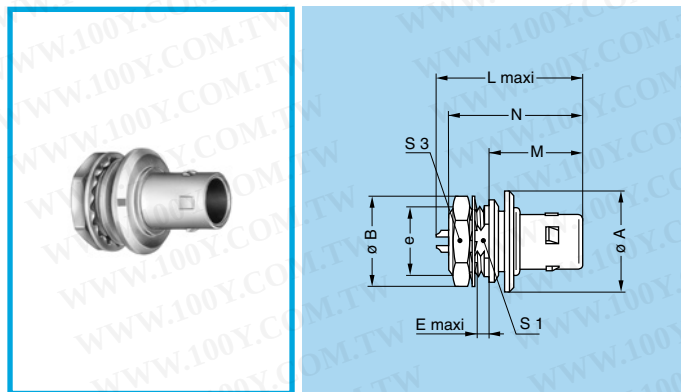


FIG Straight plug for remote handling, key (G) or keys (A...L and R), special alignment mark, knurled handling surface, cable collet

Reference		Dimensions (mm)						
Model	Series	A	L	M	N	S1	S2	S3
FIG	2B	20	49	37	17.5	13	12	15
FIG	3B	22	58	43	21.5	15	14	18
FIG	4B	30	75	57	28.5	21	20	25
FIG	5B	40	103	78	41.0	31	30	35

M1 Cable assembly (page 161)

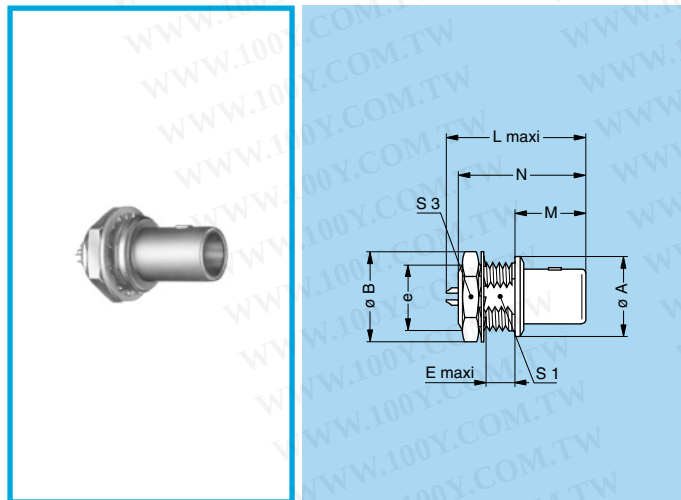


FWG Fixed plug, nut fixing, key (G) or keys (A...L)

Reference		Dimensions (mm)								
Model	Series	A	B	e	E	L	M	N ¹⁾	S1	S3
FWG	0B	14.0	12.4	M9x0.6	1.8	22.5	14.5	19.5	8.2	11
FWG	1B	18.0	15.8	M12x1.0	2.9	24.9	17.0	24.8	10.5	14
FWG	2B	19.5	19.2	M15x1.0	4.1	28.6	18.0	27.3	13.5	17
FWG	3B	25.0	25.0	M18x1.0	4.2	32.1	23.0	31.5	16.5	22

P9 Panel cut-out (page 152)

Note: ¹⁾ maximum length with crimp contacts

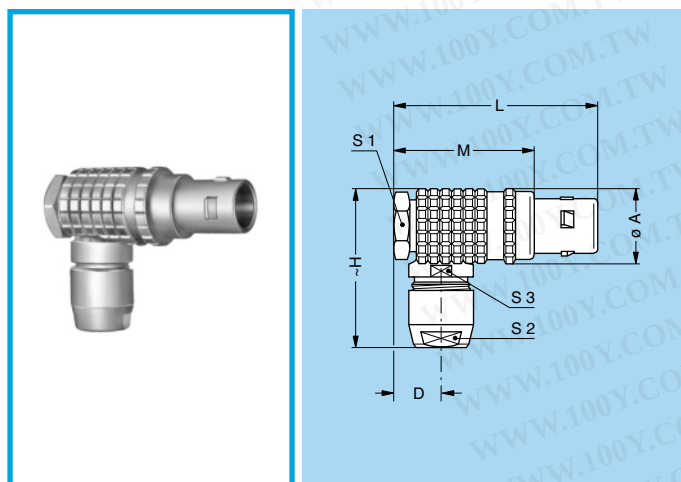


FAG Fixed plug, non-latching, nut fixing, key (G) or keys (A...M and R)

Reference		Dimensions (mm)								
Model	Series	A	B	e	E	L	M	N ¹⁾	S1	S3
FAG	00	8	10.2	M7x0.5	2.9	18.1	9.0	15.0	6.3	9
FAG	0B	10	12.4	M9x0.6	4.2	20.8	11.5	18.9	8.2	11
FAG	1B	14	15.8	M12x1.0	5.4	25.2	12.5	21.6	10.5	14
FAG	2B	18	19.2	M15x1.0	6.0	28.7	13.8	23.9	13.5	17
FAG	3B	22	25.0	M18x1.0	5.8	32.1	17.0	30.2	16.5	22
FAG	4B	29	34.0	M25x1.0	6.8	37.1	20.5	34.7	23.5	30
FAG	5B	40	40.0	M35x1.0	6.8	47.1	28.0	42.8	33.5	—

P1 Panel cut-out (page 152)

Note: ¹⁾ maximum length with crimp contacts. The 5B series is delivered without locking washer or tapered washer and with a round nut.

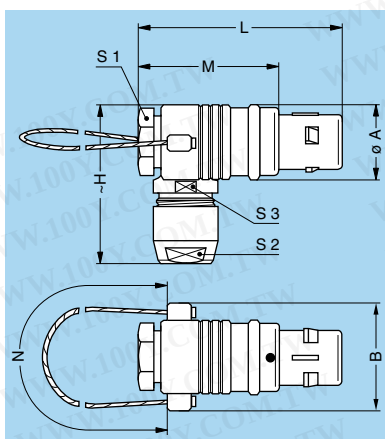


FHG Elbow (90°) plug, key (G) or keys (A...M and R), cable collet

Reference		Dimensions (mm)							
Model	Series	A	D	H	L	M	S1	S2	S3
FHG	00 ¹⁾	7.7	5.2	18.0	24.5	16.5	7	5	5.5
FHG	0B	11.0	6.5	26.0	30.0	21.6	10	7	8.0
FHG	1B	13.5	8.0	30.5	36.0	25.0	11	9	10.0
FHG	2B	16.5	9.0	34.0	41.5	29.5	14	12	13.0
FHG	3B	19.0	10.0	37.0	50.0	35.0	17	14	15.0
FHG	4B	26.0	15.0	52.0	67.0	49.0	22	20	21.0
FHG	5B	36.0	21.0	74.0	90.0	65.0	32	30	31.0

M3 Cable assembly (page 161)

Note: ¹⁾ the surface design of the 00 series is different.

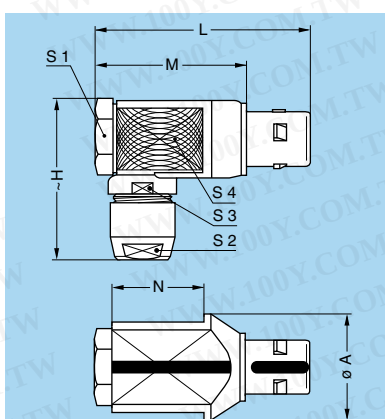


FMG Elbow (90°) plug, key (G) or keys (A...M), cable collet and lanyard release, long key ¹⁾

Reference		Dimensions (mm)								
Model	Series	A	B	H	L	M	N	S1	S2	S3
FMG	0B	11	17	26	31.6	21.6	140	10	7	8
FMG	3B	19	26	39	50.0	35.0	190	17	14	15

M3 Cable assembly (page 161)

Note: ¹⁾ long key: only in 0B series and with key (G).
Cable material: stainless steel with Polyamide sheath.

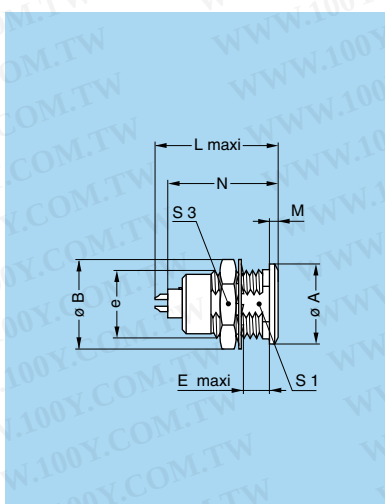


FKG Elbow (90°) plug for remote handling, key (G) or keys (A...L), special alignment mark, knurled handling surface, cable collet

Reference		Dimensions (mm)								
Model	Series	A	H	L	M	N	S1	S2	S3	S4
FKG	3B	25	37.0	50.0	35.0	21.0	17	14	15	21
FKG	4B	32	52.0	67.0	49.0	28.5	22	20	21	26
FKG	5B	46	74.2	89.5	64.5	40.0	32	30	31	38

M3 Cable assembly (page 161)

Note: dimension D is the same as for the FHG model.

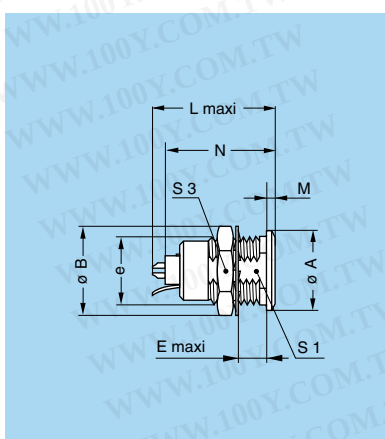


EGG Fixed socket, nut fixing, key (G) or keys (A...M and R)

Reference		Dimensions (mm)								
Model	Series	A	B	e	E	L	M	N ¹⁾	S1	S3
EGG	00	8	10.2	M7x0.5	6.0	15.5	1.0	13.7	6.3	9
EGG	0B	10	12.4	M9x0.6	7.0	20.7	1.2	19.1	8.2	11
EGG	1B	14	15.8	M12x1.0	7.5	23.0	1.5	21.1	10.5	14
EGG	2B	18	19.2	M15x1.0	8.5	26.7	1.8	24.6	13.5	17
EGG	3B	22	25.0	M18x1.0	11.5	30.7	2.0	28.1	16.5	22
EGG	4B	28	34.0	M25x1.0	12.0	35.7	2.5	34.1	23.5	30
EGG	5B	40	40.0	M35x1.0	11.0	43.5	3.0	39.6	33.5	—

P1 Panel cut-out (page 152)

Note: ¹⁾ maximum length with crimp contacts.
The 5B series is delivered with a tapered washer and a round nut.

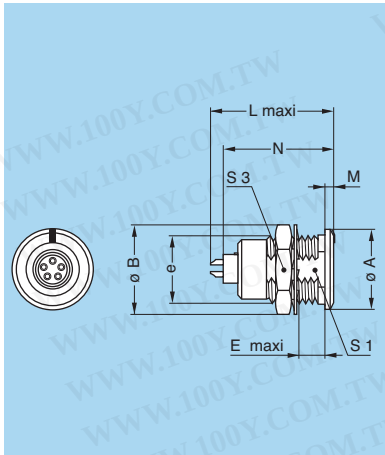


ENG Fixed socket with earthing tag, nut fixing, key (G) or keys (A...M)

Reference		Dimensions (mm)								
Model	Series	A	B	e	E	L	M	N ¹⁾	S1	S3
ENG	0B	10	12.4	M9x0.6	7.0	20.7	1.2	19.1	8.2	11
ENG	1B ²⁾	14	15.8	M12x1.0	7.5	23.0	1.5	21.1	10.5	14
ENG	2B	18	19.2	M15x1.0	8.5	26.7	1.8	24.6	13.5	17
ENG	3B	22	25.0	M18x1.0	11.5	30.7	2.0	28.1	16.5	22
ENG	4B	28	34.0	M25x1.0	12.0	35.7	2.5	34.1	23.5	30

P1 Panel cut-out (page 152)

Note: ¹⁾ maximum length with crimp contacts.
²⁾ for the 1B series the earthing tag is on the same side of the key.

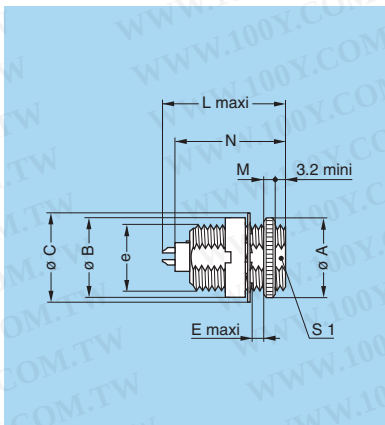


EKG Fixed socket, nut fixing, key (G) or keys (A...L and R), special alignment mark on the front

Reference		Dimensions (mm)								
Model	Series	A	B	e	E	L	M	N ¹⁾	S1	S3
EKG	2B	18	19.2	M15x1.0	8.5	26.7	1.8	24.6	13.5	17
EKG	3B	22	25.0	M18x1.0	11.5	30.7	2.0	28.1	16.5	22
EKG	4B	28	34.0	M25x1.0	12.0	35.7	2.5	34.1	23.5	30
EKG	5B	40	40.0	M35x1.0	11.0	43.5	3.0	39.6	33.5	—

P1 Panel cut-out (page 152)

Note: 1) maximum length with crimp contacts.
The 5B series is delivered with a tapered washer and a round nut.



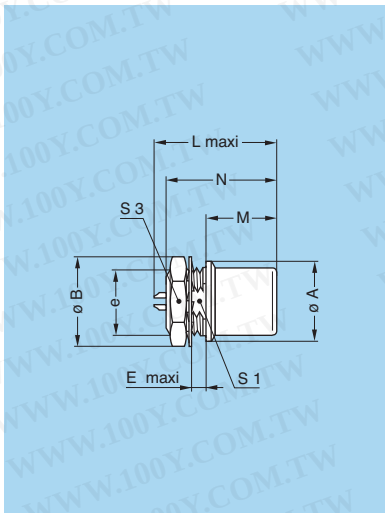
ESG Fixed socket with two round nuts, key (G) or keys (A...L), long threaded shell (back panel mounting)

Reference		Dimensions (mm)								
Model	Series	A	B	C	e	E	L	M	N ¹⁾	S1
ESG	00	9	9	9.5	M7x0.5	3.2	15.5	2	13.7	—
ESG	1B	14	14	16.0	M12x1.0	8.0	23.0	2	21.1	10.5

P1 Panel cut-out 1B series (page 152)

P2 Panel cut-out 00 series (page 152)

Note: 1) maximum length with crimp contacts.

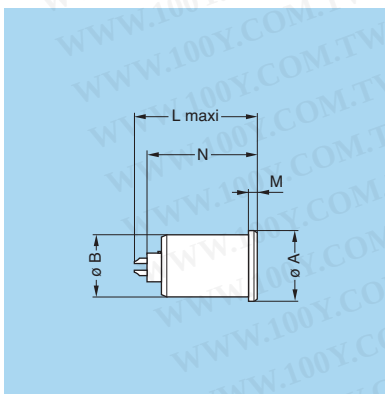


EHG Fixed socket, nut fixing, key (G) or keys (A...M and R), and protruding shell

Reference		Dimensions (mm)								
Model	Series	A	B	e	E	L	M	N ¹⁾	S1	S3
EHG	00	8.0	10.2	M7x0.5	2.0	15.5	8.5	13.7	6.3	9
EHG	0B	10.0	12.4	M9x0.6	2.0	19.5	12.5	19.1	8.2	11
EHG	1B	14.0	15.8	M12x1.0	4.0	21.7	12.0	21.1	10.5	14
EHG	2B	18.0	19.2	M15x1.0	5.1	22.7	12.5	24.6	13.5	17
EHG	3B	22.0	25.0	M18x1.0	7.1	30.7	13.5	30.3	16.5	22
EHG	5B	40.0	40.0	M35x1.0	2.5	43.5	28.0	38.5	33.5	—

P1 Panel cut-out (page 152)

Note: 1) maximum length with crimp contacts.
The 5B series is delivered without locking washer or tapered washer and with a round nut.

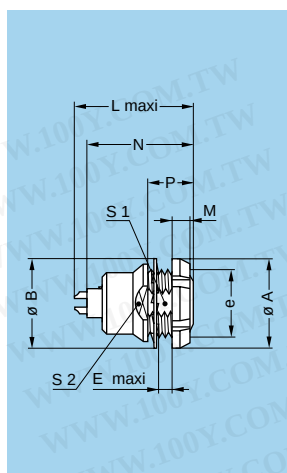


EJG Fixed socket, press or adhesive fit, key (G) or keys (A...M)

Reference		Dimensions (mm)				
Model	Series	A	B	L	M	N ¹⁾
EJG	0B	9.2	8.35	20.7	1.5	19.1
EJG	1B	12.5	11.20	23.0	1.5	21.1
EJG	2B	16.5	14.00	26.7	1.5	24.6

P5 Panel cut-out (page 152)

Note: 1) maximum length with crimp contacts.

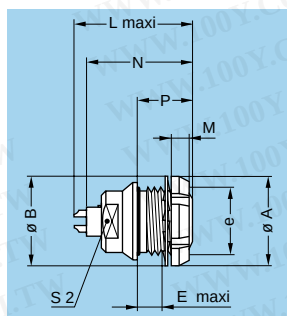


EEG Fixed socket, nut fixing, key (G) or keys (A...M and R) (back panel mounting)

Reference		Dimensions (mm)									
Model	Series	A	B	e	E	L	M	N ¹⁾	P	S1	S2
EEG	00	10	9.5	M7x0.5	2.3	15.5	2.5	13.7	6.0	6.3	7.5
EEG	0B	12	12.5	M9x0.6	2.4	20.7	2.5	19.1	6.3	8.2	9.0
EEG	1B	16	16.0	M12x1.0	6.5	23.0	3.5	21.1	11.0	10.5	13.0
EEG	2B	20	20.0	M15x1.0	3.0	26.7	3.5	24.6	9.0	13.5	15.0
EEG	3B	24	25.0	M18x1.0	5.0	30.7	4.5	28.1	12.0	16.5	20.0
EEG	5B	41	40.0	M35x1.0	13.5	43.5	5.0	39.6	19.5	33.5	38.0

P1 Panel cut-out (page 152)

Note: ¹⁾ maximum length with crimp contacts. The 3B and 5B series are delivered with a conical nut. The 5B series is delivered without locking washer or tapered washer.

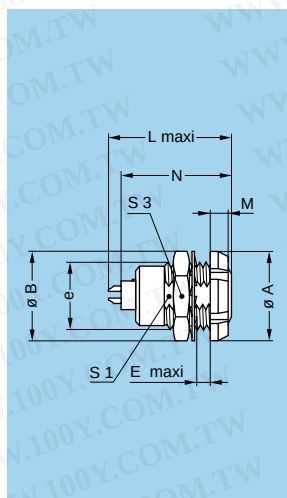


EFG Fixed socket, nut fixing, key (G) or keys (A...M), with two flats on the shell and O-ring (back panel mounting)

Reference		Dimensions (mm)								
Model	Series	A	B	e	E	L	M	N ¹⁾	P	S2
EFG	0B	12	12.5	M9x0.6	5.5	20.7	2.5	19.1	9	8

P2 Panel cut-out (page 152)

Note: ¹⁾ maximum length with crimp contacts.

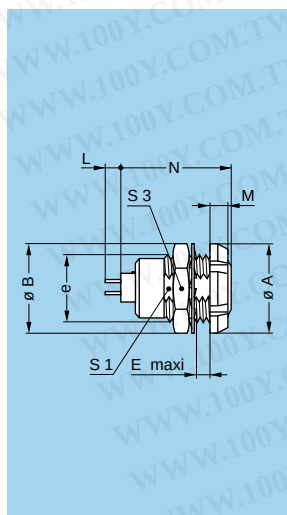


ECG Fixed socket with two nuts, key (G) or keys (A...M and R) (back panel mounting)

Reference		Dimensions (mm)								
Model	Series	A	B	e	E	L	M	N ¹⁾	S1	S3
ECG	00	10	10.2	M7x0.5	4.3	13.7	2.5	13.7	6.3	9
ECG	0B	12	12.4	M9x0.6	5.5	20.7	2.5	19.1	8.2	11
ECG	1B	16	15.8	M12x1.0	6.0	23.0	3.5	21.1	10.5	14
ECG	2B	20	19.2	M15x1.0	6.5	26.7	3.5	24.6	13.5	17
ECG	3B	24	25.0	M18x1.0	9.0	30.7	4.5	28.1	16.5	22
ECG	4B	30	34.0	M25x1.0	10.0	35.7	4.5	32.6	23.5	30
ECG	5B	41	40.0	M35x1.0	9.0	43.5	5.0	39.6	33.5	—

P1 Panel cut-out (page 152)

Note: ¹⁾ maximum length with crimp contacts. The 3B, 4B and 5B series are delivered with a conical nut. The 5B series is delivered with a tapered washer and a round nut.



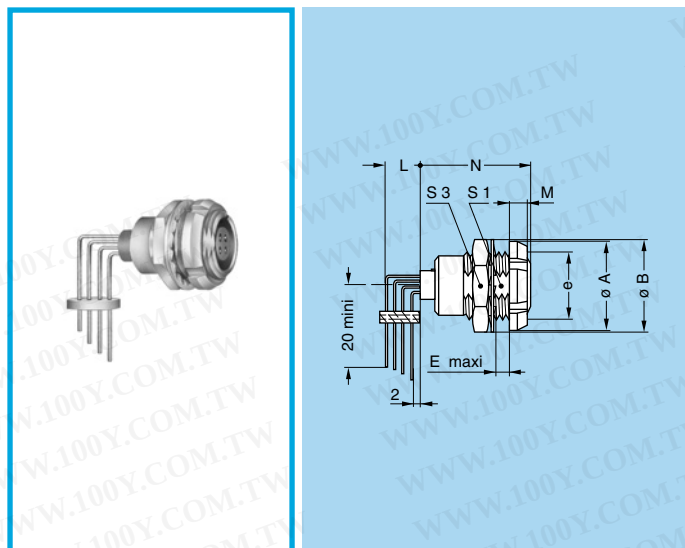
ECG Fixed socket with two nuts, key (G) or keys (A...F and R) and straight contact for printed circuit (back panel mounting)

Reference		Dimensions (mm)							
Model	Series	A	B	e	E	M	N	S1	S3
ECG	00	10	10.2	M7x0.5	4.3	2.5	13.7	6.3	9
ECG	0B	12	12.4	M9x0.6	5.5	2.5	16.4	8.2	11
ECG	1B	16	15.8	M12x1.0	6.0	3.5	19.8	10.5	14
ECG	2B	20	19.2	M15x1.0	6.5	3.5	21.8	13.5	17
ECG	3B	24	25.0	M18x1.0	9.0	4.5	25.8	16.5	22
ECG	4B	30	34.0	M25x1.0	10.0	4.5	29.8	23.5	30
ECG	5B	41	40.0	M35x1.0	9.0	5.0	36.8	33.5	—

P1
Panel cut-out (page 152)

P15
PCB drilling pattern (page 154)

Note: this contact type is available for E● socket models fitted with female contacts. Length «L» depends on the number of contacts, see table on page 156. The 5B series is delivered with a tapered washer and a round nut. The 3B, 4B and 5B series are delivered with a conical nut.



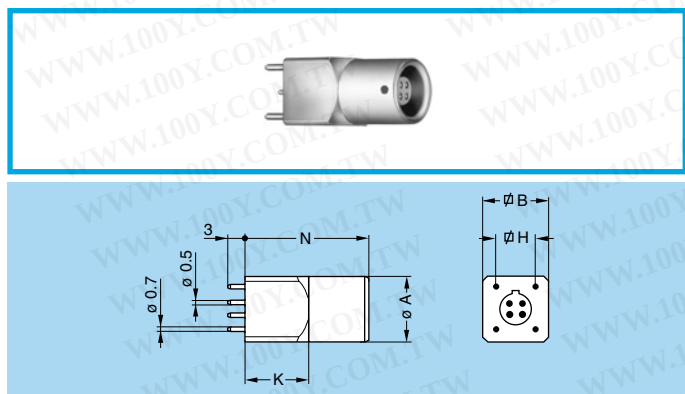
ECG Fixed socket with two nuts, key (G) or keys (A...F) with elbow (90°) contact for printed circuit (back panel mounting)

Reference		Dimensions (mm)							
Model	Series	A	B	e	E	M	N _{max}	S1	S3
ECG	0B	12	12.4	M9x0.6	2.4	2.5	18.3	8.2	11
ECG	1B	16	15.8	M12x1.0	6.0	3.5	20.3	10.5	14
ECG	2B	20	19.2	M15x1.0	6.5	3.5	22.3	13.5	17
ECG	3B	24	25.0	M18x1.0	9.0	4.5	25.8	16.5	22

P1 Panel cut-out (page 152)

P17 PCB drilling pattern (page 157)

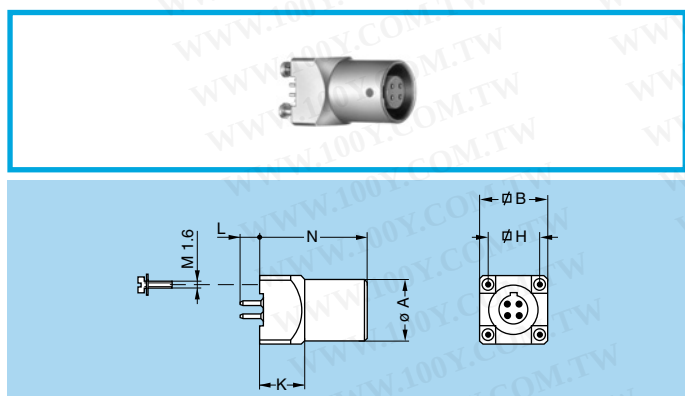
Note: this female contact type is available for all back panel mounting socket models. Length «L» depends on the number of contacts, see PCB drilling pattern on page 157.
For male contacts, sockets are available upon request, with J, K or L keys. The 3B series is delivered with a conical nut.



EZG Straight socket for printed circuit, key (G) or keys (A, B)

Reference		Dimensions (mm)				
Model	Series	A	B	H	K	N
EZG	00	6.8	7	5.08	7	14

P15 + **P16** PCB drilling pattern (pages 154 and 156)

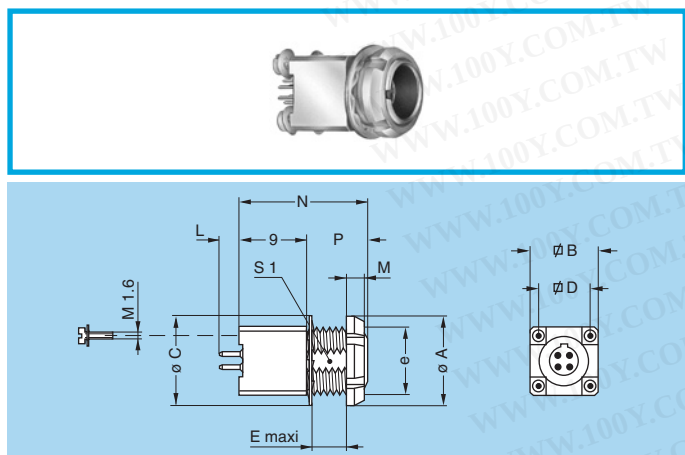


EZG Straight socket for printed circuit, key (G) or keys (A...F)

Reference		Dimensions (mm)				
Model	Series	A	B	H	K	N
EZG	0B	9	10	7.62	8	15.0
EZG	1B	11	12	7.62	8	19.0
EZG	2B	14	15	10.16	9	22.5

P15 + **P16** PCB drilling pattern (pages 154 and 156)

Note:
Length «L» depends on the number of contacts, see table on page 156.



EYG Fixed socket for printed circuit, nut fixing, key (G) or keys (A...F) (back panel mounting)

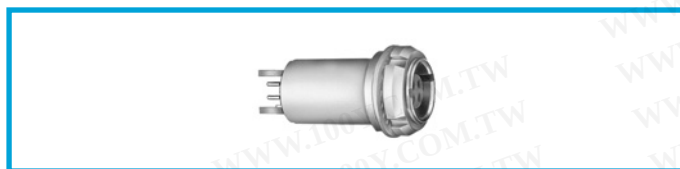
Reference		Dimensions (mm)									
Model	Series	A	B	C	D	e	E	M	N	P	S1
EYG	0B	12	10	12.5	7.62	M9x0.6	2.6	2.5	15.0	6.0	8.2
EYG	1B	14	12	16.0	7.62	M11x0.5	5.0	3.5	19.0	10.0	—
EYG	2B	20	15	19.5	10.16	M15x1.0	7.5	3.5	22.5	13.5	13.5

P1 Panel cut-out 0B and 2B series (page 152)

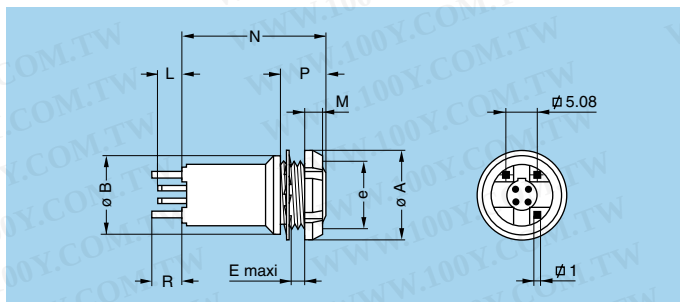
P10 Panel cut-out 1B series (page 152)

P15 + **P16** PCB drilling pattern (pages 154 and 156)

Note: Length «L» depends on the number of contacts, see page 156.



XPF Fixed socket, nut fixing, long shell, keys (F) for printed circuit (back panel mounting)



Reference		Dimensions (mm)							
Model	Series	A	B	e	E	M	N	P	R
XPF	0B	12	11	M9x0.6	1.5	2.5	19	5	4

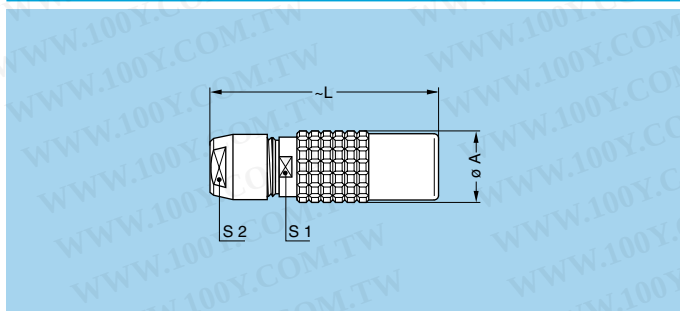
P2 Panel cut-out (page 152)

P15 + **P16** PCB drilling pattern (pages 154 and 156)

Note:
Length «L» depends on the number of contacts, see table on page 156.



PHG Free socket, key (G) or keys (A...M and R), cable collet



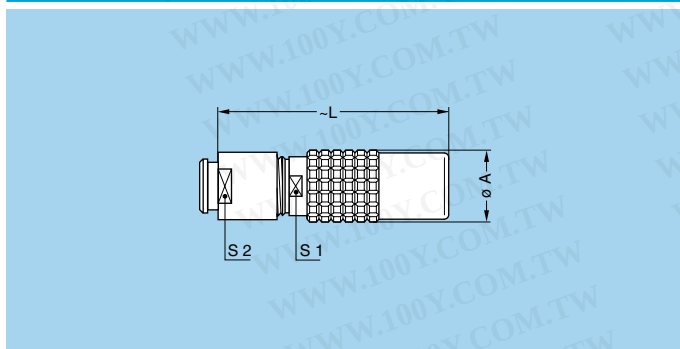
Reference		Dimensions (mm)			
Model	Series	A	L	S1	S2
PHG	00 ¹⁾	6.8	26.0	5.5	5
PHG	0B	9.5	35.5	8.0	7
PHG	1B	12.5	40.5	10.0	9
PHG	2B	16.5	47.0	13.0	12
PHG	3B	19.0	56.0	15.0	14
PHG	4B	26.0	73.0	21.0	20
PHG	5B	36.0	99.0	31.0	30

M1 Cable assembly (page 161)

Note: ¹⁾ the surface design of the 00 series is different.



PHG Free socket, key (G) or keys (A...M), cable collet and nut for fitting a bend relief ²⁾

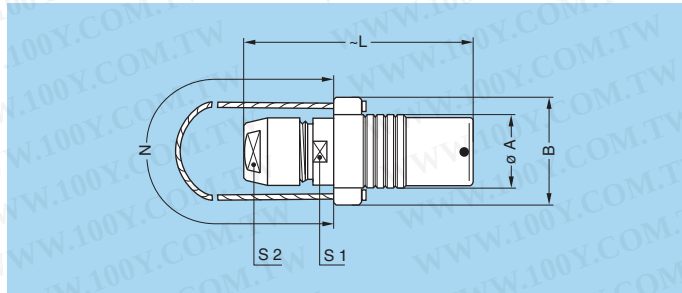
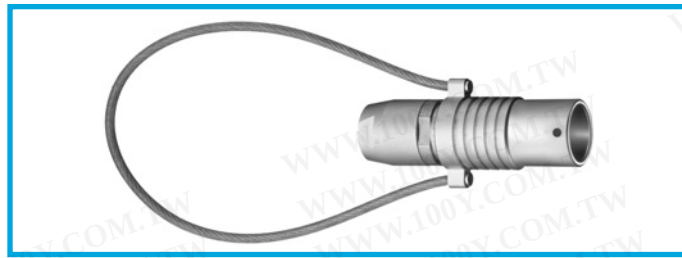


Reference		Dimensions (mm)			
Model	Series	A	L	S1	S2
PHG	00 ¹⁾	6.8	34.0	5.5	6
PHG	0B	9.5	34.5	8.0	7
PHG	1B	12.5	39.5	10.0	9
PHG	2B	16.5	46.0	13.0	12
PHG	3B	19.0	54.5	15.0	15
PHG	4B	26.0	69.0	21.0	20

M1 Cable assembly (page 161)

Note: ¹⁾ the surface design of the 00 series is different.
²⁾ to order, add a «Z» at the end of the reference.

The bend relief must be ordered separately (see page 141).

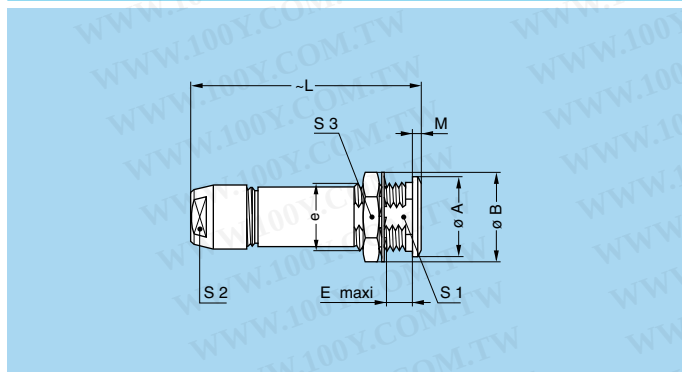
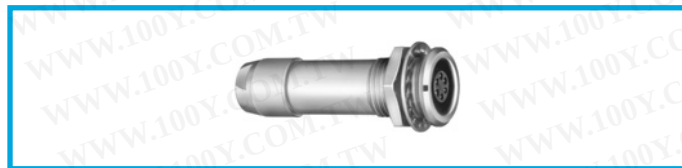


PNG Free socket, nut fixing, key (G) or keys (A...L and R), cable collet with lanyard release

Reference		Dimensions (mm)					
Model	Series	A	B	L	N	S1	S2
PNG	1B	12.4	18.4	40.5	140	10	9
PNG	2B	16.5	22.5	47.0	160	13	12
PNG	3B	19.0	26.0	56.0	190	15	14
PNG	4B	26.0	33.0	73.0	230	21	20
PNG	5B	36.0	43.0	99.0	300	31	30

M1 Cable assembly (page 161)

Note: cable material: stainless steel with Polyamide sheath



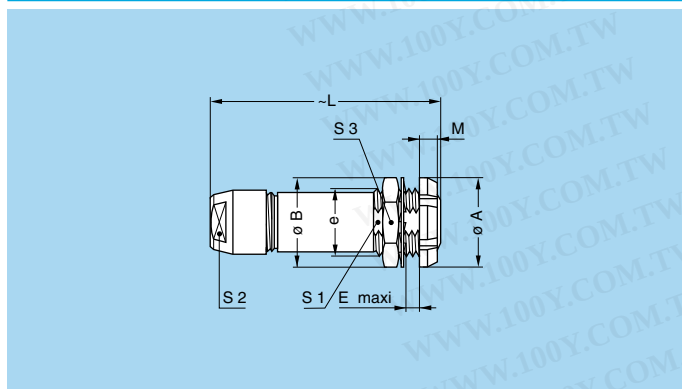
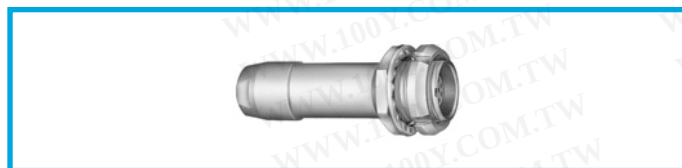
PKG Fixed socket, nut fixing, key (G) or keys (A...M and R), cable collet

Reference		Dimensions (mm)								
Model	Series	A	B	e	E	L	M	S1	S2	S3
PKG	00	8	10.2	M7x0.5	6.5	26.0	1.0	6.3	5	9
PKG	0B	10	12.4	M9x0.6	7.0	35.5	1.2	8.2	7	11
PKG	1B	14	15.8	M12x1.0	7.5	40.5	1.5	10.5	9	14
PKG	2B	18	19.2	M15x1.0	8.5	47.0	1.8	13.5	12	17
PKG	3B	22	25.0	M18x1.0	11.5	56.0	2.0	16.5	14	22
PKG	4B	28	34.0	M25x1.0	12.0	73.0	2.5	23.5	20	30
PKG	5B	40	40.0	M35x1.0	11.0	99.0	3.0	33.5	30	—

P1 Panel cut-out (page 152)

M1 Cable assembly (page 161)

Note: the 5B series is delivered with a tapered washer and a round nut.



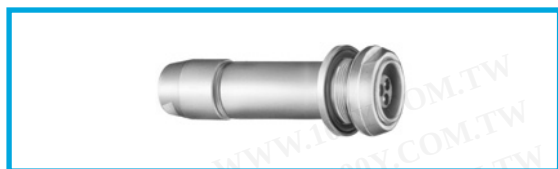
PFG Fixed socket, with two nuts, key (G) or keys (A...M and R), cable collet (back panel mounting)

Reference		Dimensions (mm)								
Model	Series	A	B	e	E	L	M	S1	S2	S3
PFG	00	10	10.2	M7x0.5	5.3	26.0	2.5	6.3	5	9
PFG	0B	12	12.4	M9x0.6	5.0	35.5	2.5	8.2	7	11
PFG	1B	16	15.8	M12x1.0	5.0	40.5	3.5	10.5	9	14
PFG	2B	20	19.2	M15x1.0	6.5	47.0	3.5	13.5	12	17
PFG	3B	24	25.0	M18x1.0	9.0	56.0	4.5	16.5	14	22
PFG	4B	30	34.0	M25x1.0	11.0	73.0	4.5	23.5	20	30
PFG	5B	41	40.0	M35x1.0	10.0	99.0	5.0	33.5	30	—

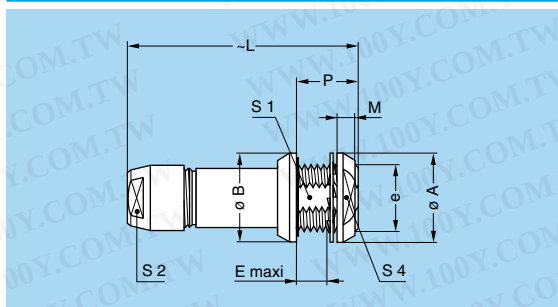
P1 Panel cut-out (page 152)

M1 Cable assembly (page 161)

Note: the 3B, 4B and 5B series are delivered with a conical nut. The 5B series is delivered with a tapered washer and a round nut.



PEG Fixed socket, nut fixing, key (G) or keys (A...L), cable collet (back panel mounting)



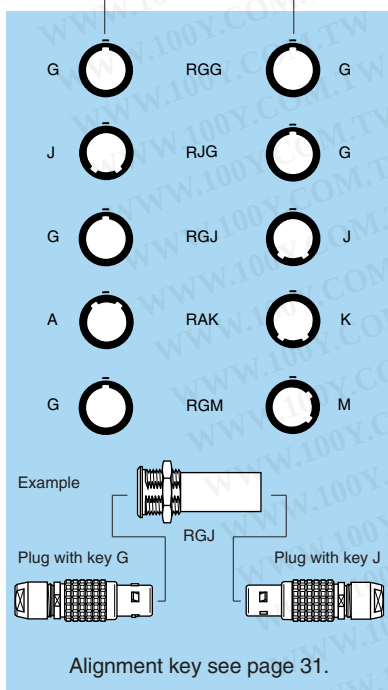
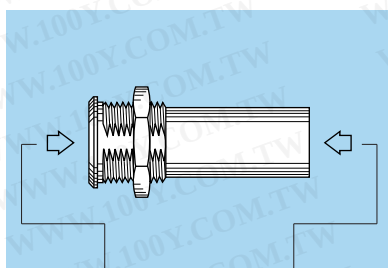
Reference		Dimensions (mm)									
Model	Series	A	B	e	E	L	M	S1	S2	S4	P
PEG	3B	24	25	M18x1.0	5.0	56	4.5	16.5	14	20	12
PEG	4B	32	34	M25x1.0	12.5	73	5.0	23.5	20	27	20

P1 Panel cut-out (page 152)

M1 Cable assembly (page 161)

Note: the 4B series has an o-ring on the flange.

R Fixed coupler, nut fixing, key (G) or keys (A and J) at the flange end and keys (J, K or M) at the other end



Reference		Contacts	Dimensions (mm)							
Model	Series	Type	A	B	e	E	L	M	S1	S2
RGG ¹⁾	0B	female – female	12	13.8	M10x0.75	8.0	34	2.0	9.0	12
RGG ²⁾	0B	female – female	12	13.8	M10x0.75	8.0	43	2.0	9.0	12
RJG	0B	male – female	12	13.8	M10x0.75	8.0	34	2.0	9.0	12
RGJ		female – male								
RAK		female – male								
RGM		female – male								
RGG ³⁾	1B	female – female	16	19.2	M14x1.00	8.5	47	2.5	12.5	17
RJG	1B	male – female	16	19.2	M14x1.00	8.5	39	2.5	12.5	17
RGJ		female – male								
RJG	2B	male – female	20	21.5	M16x1.00	12.0	44	4.0	15.0	19
RGJ		female – male								
RGJ	3B	female – male	25	27.0	M20x1.00	32.0	53	4.0	18.5	24
RGJ	4B	female – male	34	34.0	M25x1.00	50.0	65	4.0	23.5	30

P4 Panel cut-out (page 152)

Note:

¹⁾ only available with two contacts.

²⁾ only available with three and four contacts.

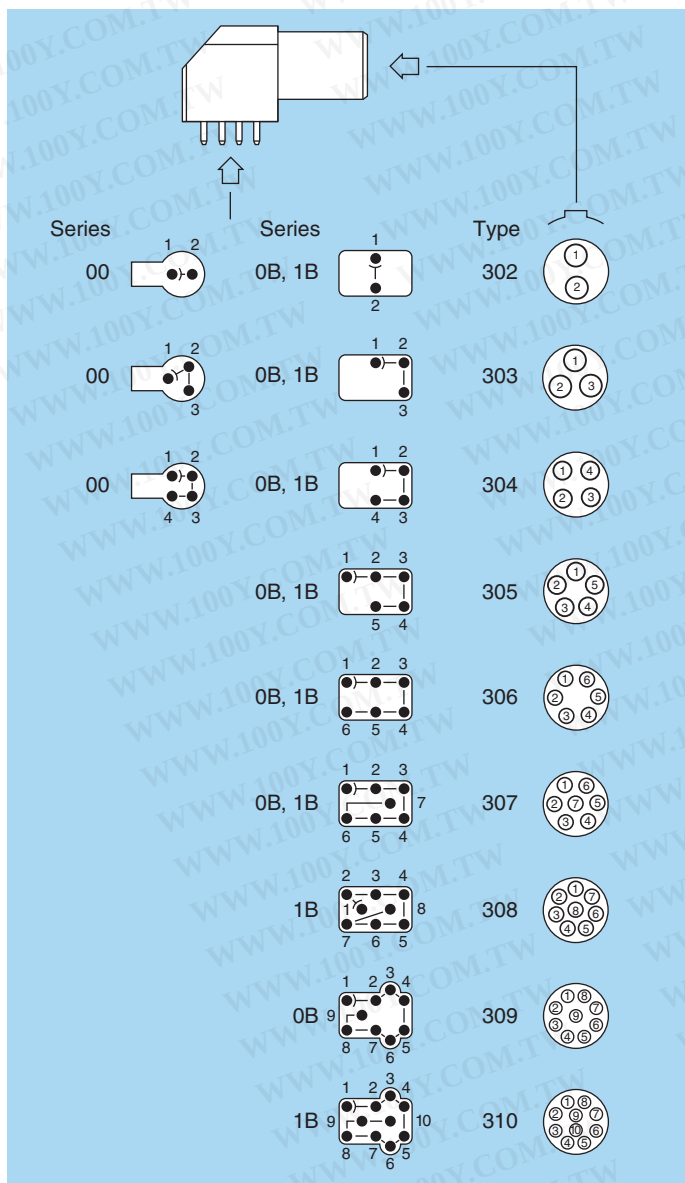
³⁾ only available with three contacts.

For this fixed coupler, the first contact type mentioned is always the one at the flange end. On request, these couplers can be produced in other series, with other keys.

Elbow socket models

Technical Characteristics

Types



Materials and Treatment

Component	Material	Surface treat. (µm)		
		Cu	Ni	Au
Housing	PPS	–		
	Brass	0.5	3	–
Metallic parts	Brass	0.5	3	–
Earthing crown	Bronze	0.5	3	–
Insulator	PEEK	–		
Female contact	Bronze	0.5	3	1.5

Note:

The surface treatment standards are as follows:
 – Nickel: FS QQ-N-290A. – Gold: ISO 4523

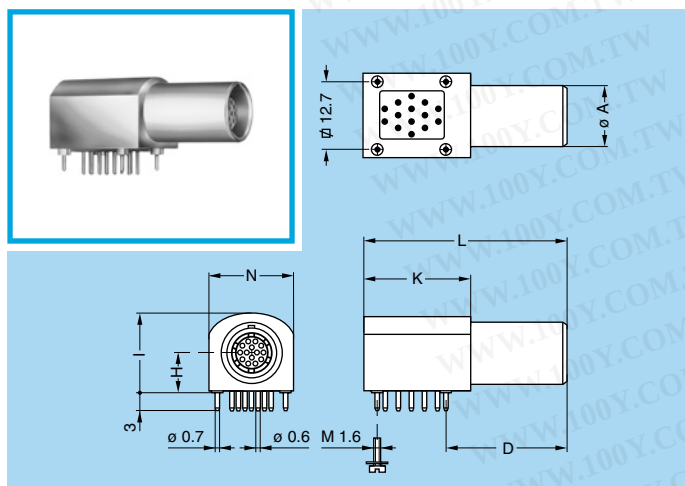
Electrical

Model	Series	Types	Test voltage (kV rms) ¹⁾ Contact-contact	Test voltage (kV rms) ¹⁾ Contact-shell	Rated current (A) ¹⁾
EPG-XBG	00	302-303-304	0.80	0.65	2.0
EPG-EXG	0B	302	1.30	1.05	4.5
EPG-EXG	0B	303	1.20	0.90	4.5
EPG-EXG	0B	304	0.85	0.70	4.5
EPG-EXG	0B	305	1.00	0.70	4.5
EPG-EXG	0B	306	0.85	0.65	2.5
EPG-EXG	0B	307	0.80	0.70	2.0
EPG-EXG	0B	309	0.60	0.50	1.5
EPG-EXG	1B	302	1.50	1.35	4.5
EPG-EXG	1B	303	1.30	1.55	4.5
EPG-EXG	1B	304	1.35	1.45	4.5
EPG-EXG	1B	305	1.25	1.15	4.5
EPG-EXG	1B	306	1.05	1.20	4.5
EPG-EXG	1B	307	0.95	1.05	2.0
EPG-EXG	1B	308	0.95	1.15	2.0
EPG-EXG	1B	310	0.90	1.50	1.5
EPG	1B	314	0.80	1.20	1.0

Note:

¹⁾ see calculation method, caution and suggested standard on page 178.

EPG Elbow (90°) socket for printed circuit, key (G) or keys (A...F) (solder or screw fixing)



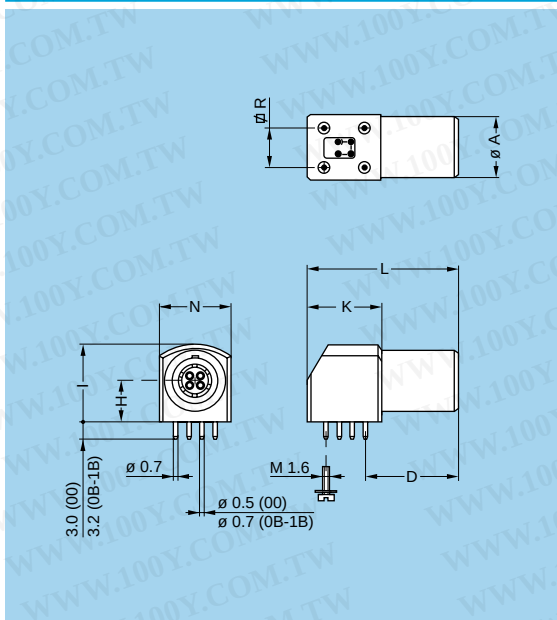
Reference	Dimensions (mm)						
	A	D	H	I	K	L	N
EPG.1B.314.NLN	11	21	7.7	14.3	19	36	15.4

P20 PCB drilling pattern (page 158)

Note: to replace the 4 ground pins by 4 screws (M1.6) add an «S» to the end of the part number. (e.g.: EPG.1B.314.NLNS)



EPG Elbow (90°) socket for printed circuit, key (G) or keys (A...F) (solder or screw fixing)



Reference	Dimensions (mm)							
	A	D	H	I	K	L	N	R
EPG.00.302.HLN	6.8	11.5	3.5	7.0	8.7	19	7.1	5.08
EPG.00.303.HLN								
EPG.00.304.HLN								
EPG.0B.302.HLN								
EPG.0B.303.HLN	9.0	14.6	6.7	12.7	13.3	25	11.7	7.62
EPG.0B.304.HLN								
EPG.0B.305.HLN								
EPG.0B.306.HLN								
EPG.0B.307.HLN	11.0	16.6	7.5	14.0	13.3	27	12.6	7.62
EPG.0B.309.HLN								
EPG.1B.302.HLN								
EPG.1B.303.HLN								
EPG.1B.304.HLN								
EPG.1B.305.HLN								
EPG.1B.306.HLN								
EPG.1B.307.HLN								
EPG.1B.308.HLN								
EPG.1B.310.HLN								

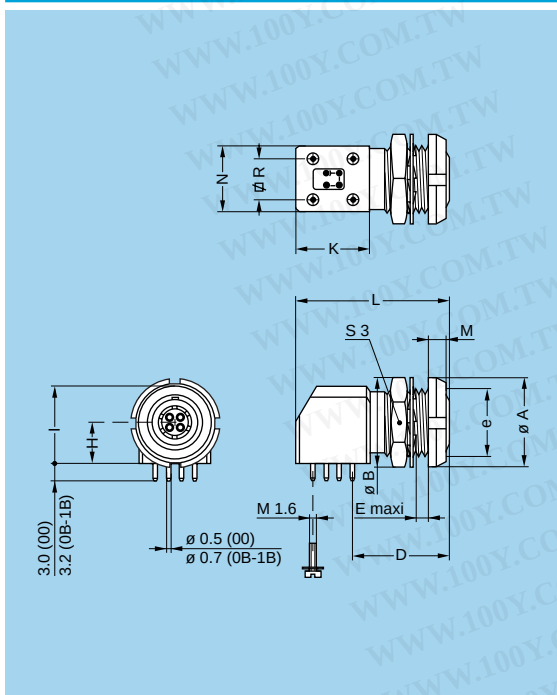
P18 PCB drilling pattern 00 series (page 158)

P19 PCB drilling pattern 0B, 1B series (page 158)

Note: In the 0B and 1B series, it is possible to replace the 4 ground pins by 4 screws (M1.6) add an «S» to the end of the part number. (e.g.: EPG.0B.307.HLNS)



EXG Elbow (90°) socket for printed circuit with two nuts, key (G) or keys (A...F) (solder or screw fixing) (back panel mounting)



XBG Elbow (90°) socket fixing nut for printed circuit, key (G) or keys (A, B) (back panel mounting)

Reference	Dimensions (mm)												
	A	B	D	e	E	H	I	K	L	M	N	R	S3
XBG.00.302.HLN	10	10.2	11.5	M7x0.5	2.1	3.5	7.0	8.7	19	2.5	7.1	5.08	9
XBG.00.303.HLN													
XBG.00.304.HLN													
EXG.0B.302.HLN	12	12.4	14.6	M9x0.6	6.0	6.7	12.7	13.3	25	2.5	11.7	7.62	11
EXG.0B.303.HLN													
EXG.0B.304.HLN													
EXG.0B.305.HLN													
EXG.0B.306.HLN	14	15.0	16.6	M11x0.5	7.5	7.5	14.0	13.3	27	3.5	12.6	7.62	13
EXG.0B.307.HLN													
EXG.0B.309.HLN													
EXG.1B.302.HLN													
EXG.1B.303.HLN													
EXG.1B.304.HLN													
EXG.1B.305.HLN													
EXG.1B.306.HLN													
EXG.1B.307.HLN													
EXG.1B.308.HLN													
EXG.1B.310.HLN													

P2 Panel cut-out 00, 0B series (page 152)

P10 Panel cut-out 1B series (page 152)

P18 PCB drilling pattern 00 series (page 158)

P19 PCB drilling pattern 0B, 1B series (page 158)

Note: In the 0B and 1B series, it is possible to replace the 4 ground pins by 4 screws (M1.6) add an «S» to the end of the part number. (e.g.: EXG.0B.307.HLNS).

Plastic housing models

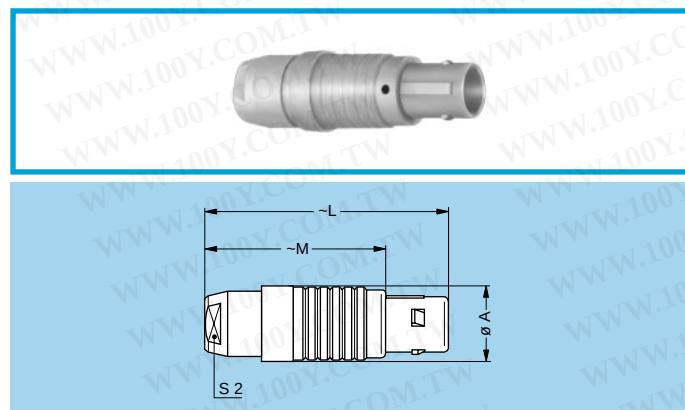
These connectors are particularly recommended for all applications requiring maximum electrical insulation when mated. The design, including a latch sleeve and a metal earthing crown, guarantees EMC screening efficiency to meet most requirements.

Technical Characteristics

Mechanical and Climatical

Characteristics	Value			Standard
	PEEK	PSU	PPSU	
Colour	natural (beige)	white or grey	cream	—
Endurance	> 5000 cycles	> 5000 cycles	> 5000 cycles	IEC 60512-5 test 9a
Humidity	up to 95% at 60° C			—
Temperature range	- 50° C/+250° C	- 50° C/+150° C	- 50° C/+180° C	—
Sterilization resistance ¹⁾	> 200 cycles	~20 cycles	> 100 cycles	IEC 60601-1 § 44.7
Resistance to solvents	very good	limited	good	—

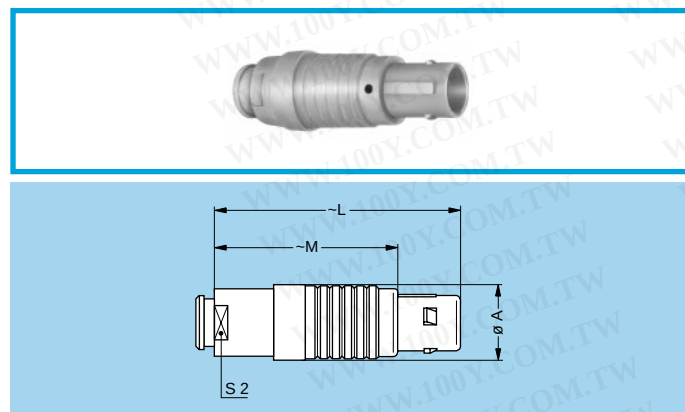
Note: ¹⁾ Steam sterilization



FGG Straight plug, key (G or J), cable collet, PEEK outer shell

Reference		Dimensions (mm)			
Model	Series	A	L	M	S2
FGG	1B	13.5	43.0	32.0	10
FGG	3B	19.0	62.0	47.0	15
FGG	4B	26.0	78.5	60.5	20

M1 Cable assembly (page 161)



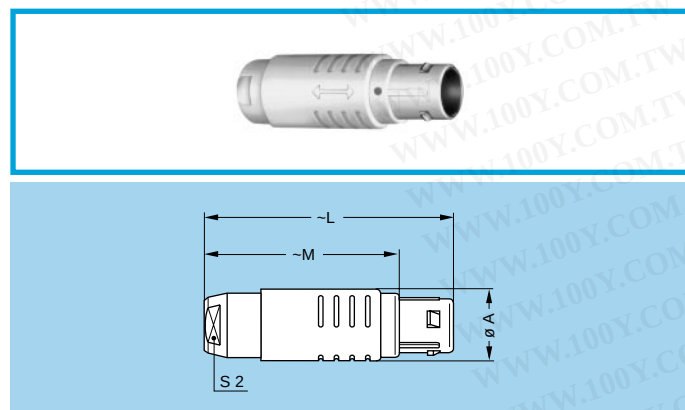
FGG Straight plug, key (G or J), cable collet, PEEK outer shell and nut for fitting a bend relief ¹⁾

Reference		Dimensions (mm)				Note on availability
Model	Series	A	L	M	S2	
FGG	1B	13.5	42.2	31.2	10	for all collet type
FGG	4B	26.0	83.2	65.2	20	only from collet M82 and up

M1 Cable assembly (page 161)

Note: ¹⁾ to order, add a «Z» at the end of the reference.

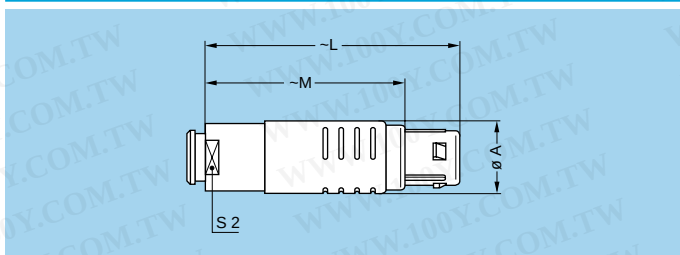
The bend relief must be ordered separately (see page 141).



FGY Straight plug, keys (Y), cable collet and PSU or PPSU outer shell

Reference		Dimensions (mm)			
Model	Series	A	L	M	S2
FGY	2B	16.5	50.5	39.5	13
FGY	3B	19.0	58.0	43.0	15
FGY	4B	26.0	76.2	58.2	20

M1 Cable assembly (page 161)



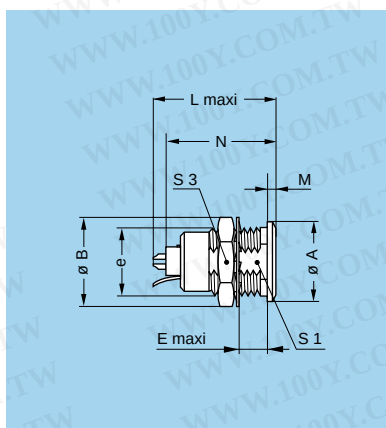
FGY Straight plug, keys (Y), cable collet and PSU or PPSU outer shell and nut for fitting a bend relief ¹⁾

Reference		Dimensions (mm)				Note on availability
Model	Series	A	L	M	S2	
FGY	2B	16.5	49.5	38.5	13	only for collet M42 and up
FGY	3B	19.0	56.5	41.5	15	only for collet D62 and up
FGY	4B	26.0	74.4	56.4	20	only for collet M82 and up

M1 Cable assembly (page 161)

Note: ¹⁾ to order, add a «Z» at the end of the reference.

The bend relief must be ordered separately (see page 141).

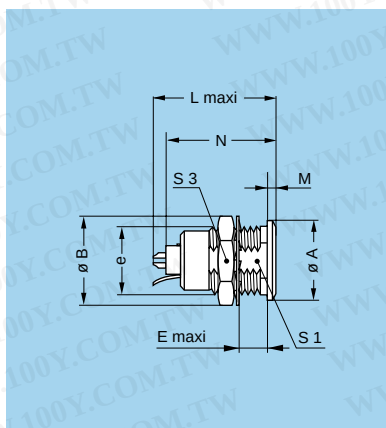


ENG Fixed socket with earthing tag, nut fixing, key (G or J), PEEK outer shell

Reference		Dimensions (mm)								
Model	Series	A	B	e	E	L	M	N ¹⁾	S1	S3
ENG	1B	14	15.8	M12x1.0	7.5	23.0	1.5	21.1	10.5	14
ENG	3B	22	25.0	M18x1.0	11.5	30.7	2.0	28.1	16.5	22
ENG	4B	28	34.0	M25x1.0	12.0	35.7	2.5	32.6	23.5	30

P1 Panel cut-out (page 152)

Note: ¹⁾ maximum length with crimp contacts.



ENY Fixed socket with earthing tag, nut fixing, keys (Y), PSU or PPSU outer shell

Reference		Dimensions (mm)								
Model	Series	A	B	e	E	L	M	N ¹⁾	S1	S3
ENY	2B	18	19.2	M15x1.0	8.5	26.7	1.8	24.6	13.5	17
ENY	3B	22	25.0	M18x1.0	11.5	30.7	2.0	28.1	16.5	22
ENY	4B	28	34.0	M25x1.0	12.0	35.7	2.5	32.6	23.5	30

P1 Panel cut-out (page 152)

Note: ¹⁾ maximum length with crimp contacts.

Note: other models with plastic outer shell are available on request.

Watertight or vacuumtight models

These plug, socket and coupler models allow the device on which they are fitted to reach a protection index of IP68 as per IEC 60529. They are fully compatible with plugs of the same series and are widely used for portable radios, military, laboratory equipment, aviation, etc.

These models are identified by a letter «P» at the end of the reference.

Most of these models are also available in a vacuumtight version. Such models are identified by an additional letter «V» at the end of the part number (certificate on request).

Epoxy resin is used to seal these models.

Technical Characteristics

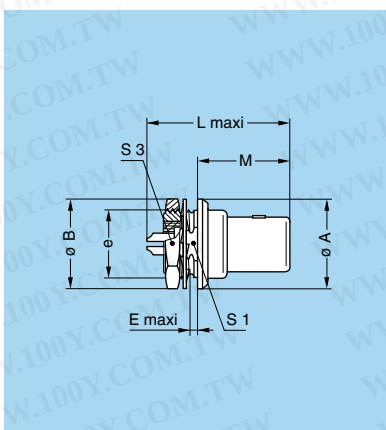
Mechanical and Climatical

Characteristics	Value	Standard
Endurance	> 5000 cycles	IEC 60512-5 test 9a
Humidity	up to 95% at 60° C	
Temperature range (00 to 1B)	- 20° C/+100° C	
Temperature range (2B to 5B)	- 20° C/+80° C	
Salt spray corrosion test	> 144h	IEC 60512-6 test 11f
Climatical category	20/80/21	IEC 60068-1
Leakage rate (He) ¹⁾	< 10 ⁻⁷ mbar.l.s ⁻¹	IEC 60512-7 test 14b

Note: ¹⁾ only for vacuumtight models.

Characteristics	Value	Standard
Maximum operating pressure ²⁾	00	60 bars
	0B	60 bars
	1B	60 bars
	2B	40 bars
	3B	30 bars
	4B	15 bars
	5B	5 bars

Note: ²⁾ this value corresponds to the maximum allowed pressure difference for the assembled socket.

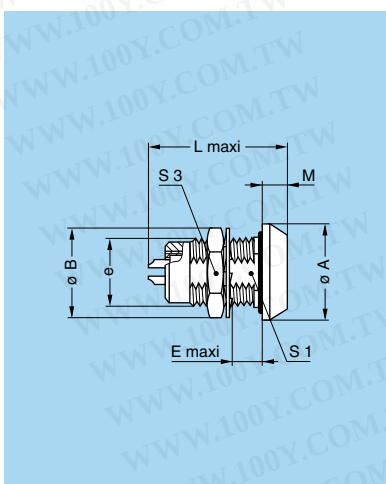


YHG Fixed plug, nut fixing, non-latching, key (G) or keys (A...M)

Reference		Dimensions (mm)							
Model	Series	A	B	e	E	L	M	S1	S3
YHG	0B	13.0	12.4	M9x0.6	2.4	24.1	14.2	8.2	11
YHG	1B	16.0	15.8	M12x1.0	3.9	28.0	16.2	10.5	14
YHG	2B	19.0	19.2	M15x1.0	5.5	33.1	17.8	13.5	17
YHG	3B	22.0	25.0	M18x1.0	5.1	38.2	22.2	16.5	22

P9 Panel cut-out (page 152)

Note: this model does not include an O-ring behind the flange, it ensures only IP61 protection index. Consequently, it is not vacuumtight. Watertightness (when mated) is only ensured with HHG and HCG sockets.

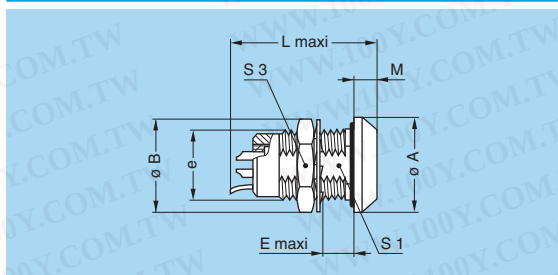


HGG Fixed socket, nut fixing, key (G) or keys (A...M and R), watertight or vacuumtight

Reference		Dimensions (mm)							
Model	Series	A	B	e	E	L	M	S1	S3
HGG	00	11	10.2	M7x0.5	8.0	18.0	1.5	—	9
HGG	0B	13	12.4	M9x0.6	7.0	20.2	3.0	8.2	11
HGG	1B	18	15.8	M12x1.0	7.0	26.6	4.5	10.5	14
HGG	2B	20	19.2	M15x1.0	8.0	31.6	4.0	13.5	17
HGG	3B	25	25.0	M18x1.0	11.5	36.1	4.0	16.5	22
HGG	4B	34	34.0	M25x1.0	11.0	43.1	4.0	23.5	30
HGG	5B	45	40.0	M35x1.0	11.0	53.6	5.0	33.5	—

P9 Panel cut-out (page 152)

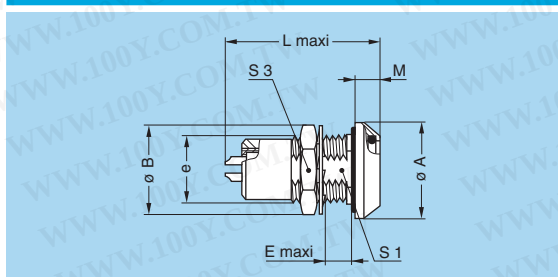
Note: the 5B series is delivered with a tapered washer and a round nut.



HNG Fixed socket, nut fixing, with earthing tag, key (G) or keys (A...M), watertight or vacuumtight

Reference		Dimensions (mm)							
Model	Series	A	B	e	E	L	M	S1	S3
HNG	0B	13	12.4	M9x0.6	7	20.2	3	8.2	11

P9 Panel cut-out (page 152)

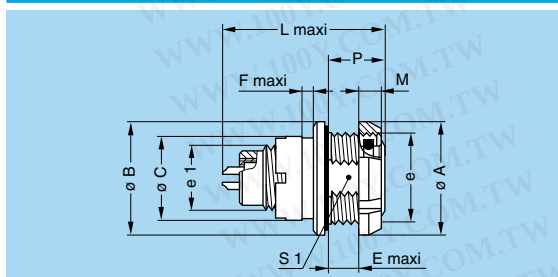


HHG Fixed socket, nut fixing, key (G) or keys (A...M), watertight or vacuumtight (watertight when mated)

Reference		Dimensions (mm)							
Model	Series	A	B	e	E	L	M	S1	S3
HHG	0B	13	12.4	M9x0.6	7.0	23.2	4.8	8.2	11
HHG	1B	18	15.8	M12x1.0	7.0	30.3	5.2	10.5	14
HHG	2B	22	19.2	M15x1.0	8.0	35.6	6.0	13.5	17
HHG	3B	25	25.0	M18x1.0	11.5	41.3	7.2	16.5	22

P9 Panel cut-out (page 152)

Note: this model ensures watertightness (IP66) in the mating area when mated with FGG or similar plug.

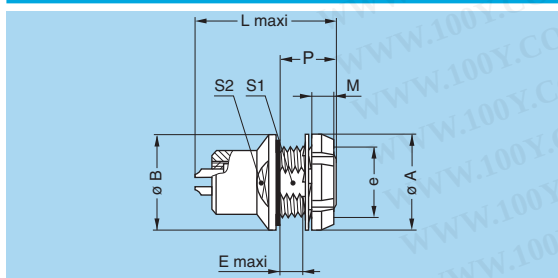


HCG Fixed socket, nut fixing, key (G) or keys (A...M), watertight or vacuumtight (watertight when mated) (back panel mounting)

Reference		Dimensions (mm)										
Model	Series	A	B	C	e	e1	E	F	L	M	P	S1
HCG	0B	18	18	12.0	M14x1.0	M9x0.6	3.9	1.0	23.2	3.5	7.5	12.5
HCG	1B	20	20	14.5	M16x1.0	M12x1.0	6.2	2.0	30.3	3.5	10.0	14.5
HCG	2B	24	24	17.5	M19x1.0	M14x1.0	6.7	1.5	35.6	3.5	11.3	17.0

P3 Panel cut-out (page 152)

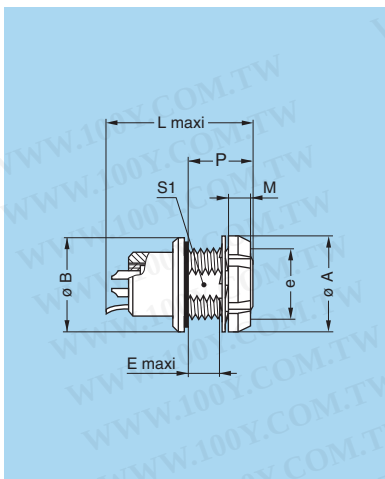
Note: this model ensures watertightness (IP66) in the mating area when mated with FGG or similar plug.



HEG Fixed socket, nut fixing, key (G) or keys (A...M), watertight or vacuumtight (back panel mounting)

Reference		Dimensions (mm)								
Model	Series	A	B	e	E	L	M	P	S1	S2
HEG	00	10	11	M7x0.5	2.5	18.2	2.5	6.0	6.3	—
HEG	0B	12	13	M9x0.6	5.5	21.5	2.5	9.0	8.2	—
HEG	1B	16	18	M12x1.0	5.5	26.6	3.5	11.0	10.5	—
HEG	2B	20	20	M15x1.0	5.5	31.6	3.5	9.6	13.5	15

P9 Panel cut-out (page 152)



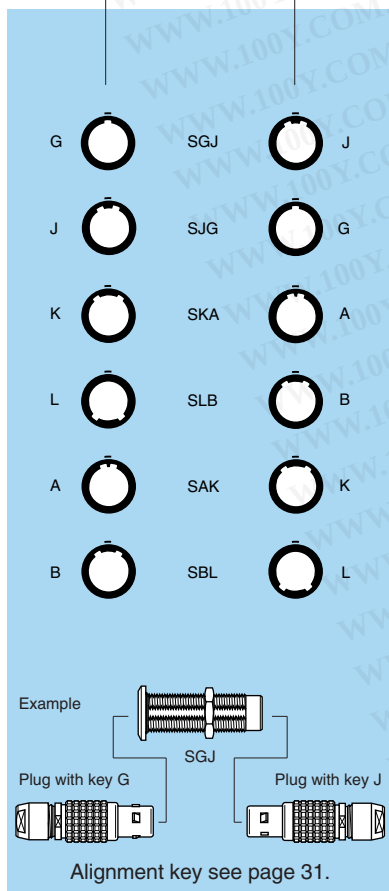
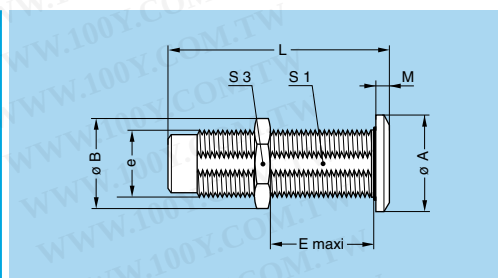
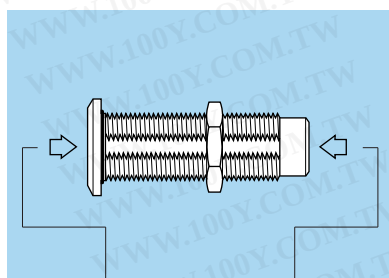
HMG Fixed socket with earthing tag, nut fixing, key (G) or keys (A...M), watertight or vacuumtight (back panel mounting)

Reference		Dimensions (mm)							
Model	Series	A	B	e	E	L	M	P	S1
HMG	00	10	11	M7x0.5	2.5	18.0	2.5	6.0	6.3
HMG	0B	12	13	M9x0.6	5.5	21.5	2.5	9.0	8.2
HMG	1B	16	18	M12x1.0	5.5	26.6	3.5	11.0	10.5
HMG	2B ¹⁾	20	20	M15x1.0	5.5	31.6	3.5	9.6	13.5
HMG	3B	24	25	M18x1.0	7.5	36.1	4.5	14.0	16.5

P9 Panel cut-out (page 152)

Note: ¹⁾ the surface design of the 2B series is different.
The 3B series is delivered with a conical nut.

S Fixed coupler, nut fixing, key (G) or keys (A, B, J, K and L) at the flange end and key (G) or keys (A, B, J, K and L) at the other end, watertight or vacuumtight



Reference		Contacts	Dimensions (mm)							
Model	Series	Type	A	B	e	E	L	M	S1	S3
SGJ	0B	female – male	14	13.8	M10x0.75	17	34	2.0	9.0	12
SJG		male – female								
SGJ	1B	female – male	17	15.8	M12x1.00	28	39	2.5	10.5	14
SJG		male – female								
SGJ	2B	female – male	20	21.5	M16x1.00	25	44	4.0	15.0	19
SJG		male – female								
SGJ	3B	female – male	25	27.0	M20x1.00	30	53	4.0	18.5	24
SJG		male – female								
SAK		female – male								
SBL		female – male								
SAK	4B	female – male	34	34.0	M25x1.00	50	65	4.0	23.5	30
SBL		female – male								
SGJ		female – male								
SJG		male – female								
SGJ	5B	female – male	45	40.0	M35x1.00	58	80	5.0	33.5	–
SJG		male – female								
SKA		male – female								
SLB		male – female								
SAK		female – male								
SBL		female – male								

P4 Panel cut-out (page 152)

P9 Panel cut-out 1B series (page 152)

Note: for this fixed coupler, the first contact type mentioned is always the one at the flange end.
On request these couplers can be produced in other series, with other keys.
The 5B series is delivered with a round nut.

Bridge models

Technical Characteristics

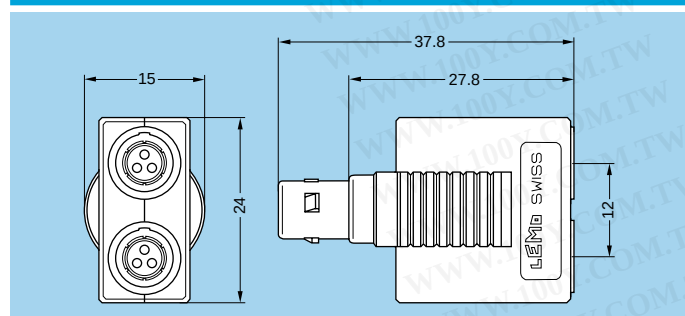
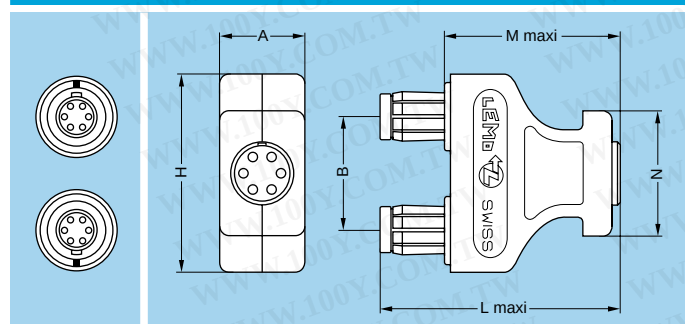
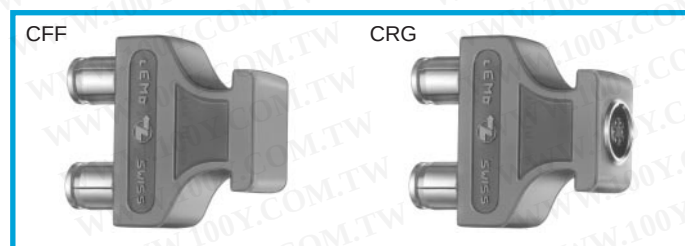
Mechanical and Climatical

Characteristics	Value	Standard
Endurance	> 1000 cycles	IEC 60512-5 test 9a
Working temperature	maximum 90° C	

Materials and Treatment

Component	Material	Surface treat. (µm)			
		Cu	Ni	Cr	Au
Plastic housing	Polyamide	–			
Metallic parts	Brass	0.5	3	–	–
	Brass	0.5	3	0.3	–
Insulator	PEEK	–			
Male contact	Brass	0.5	3	–	1.0
Female contact	Bronze	0.5	3	–	1.5

Note: the surface treatment standards are as follows:
– Nickel: FS QQ-N-290A, chrome: FS QQ-C-320B, gold: ISO 4523



Electrical

Characteristics	Value	Standard
Contact resistance	< 6 mΩ	IEC 60512-2 test 2a

Reference	Series	Audio-Mono	Audio-Stereo	Test voltage (kV rms) ^{1) 2)}	Rated current (A)
CFF.0B.302.PLCG	0B	●	–	1.05	4
CRG.0B.302.PLEG	0B	●	–	1.05	4
CFF.0B.303.PLCG	0B	●	–	0.80	4
CRG.0B.303.PLEG	0B	●	–	0.80	4
CRG.0B.306.PLEG	0B	–	●	0.40	2
CFF.1B.303.PLCG	1B	●	–	1.25	5
CRG.1B.303.PLEG	1B	●	–	1.25	5
CFF.1B.306.PLCG	1B	–	●	0.80	3
CRG.1B.306.PLEG	1B	–	●	0.80	3

Note: the last letter of the part number indicates the colour of the housing. Ex. G (standard) is grey. To obtain another colour, replace this letter by the letter corresponding to the selected colour (see table on page 54).
1) see calculation method, caution and suggested standard on page 178.
2) lowest measured value; contact to contact or contact to shell.

CFF Bridge plug with two non-latching plugs

CRG Bridge plug with two non-latching plugs, and monitoring socket, key (G) or keys (A...M)

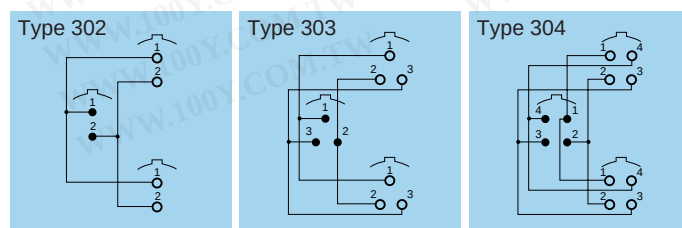
Reference		Dimensions (mm)					
Model	Series	A	B	H	L	M	N
CFF-CRG	0B	13.5	14	27.5	37.2	27.2	22.5
CFF-CRG	1B	15.0	20	35.0	42.0	31.0	22.0

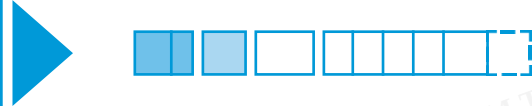
Note: in order to provide the user with a coding system, the bridge plug housing, the double panel washers and the bend reliefs are available in nine colours.

FTG Straight plug, key (G) and two parallel sockets

Reference	Number of contacts	Test voltage (kV rms) ¹⁾	Nominal current (A)
FTG.0B.302.PLFG	2	1.05	4
FTG.0B.303.PLFG	3	0.80	4
FTG.0B.304.PLFG	4	0.80	3

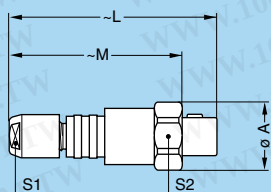
Note:
1) see calculation method, caution and suggested standard on page 178.





Threaded-latching models

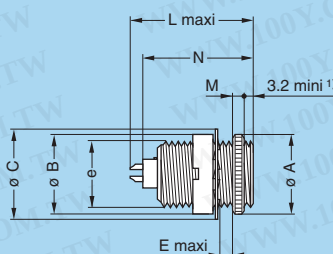
FVG Straight plug, key (G) or keys (B), cable collet



Reference		Dimensions (mm)				
Model	Series	A	L	M	S1	S2
FVG	00	9	28.5	24	5	8

Note: to be ordered with nut for fitting a bend relief to obtain the rating IP 64.

ESG Fixed socket with two round nuts, key (G) or keys (B), long threaded shell (back panel mounting)

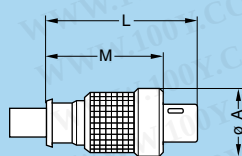


Reference		Dimensions (mm)							
Model	Series	A	B	C	e	E	L	M	N
ESG	00	9	9	9.5	M7x0.5	3.2	15.5	2	13.7

P2 Panel cut-out (page 152)

Note: 1) minimum length of free thread to ensure mating.

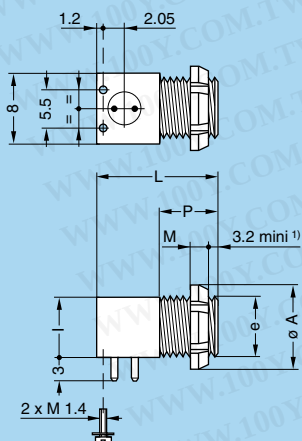
FVB Straight plug, keys (B), short shell for special cable crimping and for fitting a bend relief



Reference		Dimensions (mm)		
Model	Series	A	L	M
FVB	00	9	20	15.4

Note: after assembly the special bend relief GMF.00.018.D● (to be ordered separately) is to be fitted.

XRB Elbow (90°) socket for printed circuit, keys (B), short shell with one nut, screw fixing (back panel mounting)



Reference		Dimensions (mm)					
Model	Series	A	e	I	L	M	P
XRB	00	10	M7x0.5	7	14	2.5	7

P2 Panel cut-out (page 152)

P18 PCB drilling pattern for contact only (page 158)

Note: 1) minimum length of free thread to ensure mating.

Alignment Key (B series)

Alignment Key and Polarized Keying System

B series connector model part numbers are composed of three letters. The LAST LETTER indicates the key position and the contact type (male or female).

Front view of a socket	Reference	Nb of keys	Angles	Series			Reference	Nb of keys	Angles	Series				Contact type		Note
				00	0B	1B				2B	3B	4B	5B	Plug	Socket	
	G	1		0°	0°	0°	G	1		0°	0°	0°	0°	male	female	●
	A	2		30°	30°	30°	A	2		30°	30°	30°	30°	male	female	●
	B	2		60°	60°	60°	B	2		45°	45°	45°	45°	male	female	●
	C	2		—	90°	90°	C	2		60°	60°	60°	60°	male	female	●
	D	2		—	135°	135°	D	2	γ	95°	95°	95°	95°	male	female	○
	E	2		—	145°	145°	E	2	β	120°	120°	120°	120°	male	female	○
	F	2		—	155°	155°	F	2	β	145°	145°	145°	145°	male	female	○
	J	2		45°	45°	45°	J	2	α	37.5°	37.5°	37.5°	37.5°	female	male	●
	K	2		—	70°	70°	K	2	α	52.5°	52.5°	52.5°	52.5°	female	male	○
	L	2		—	80°	80°	L	2	γ	70°	70°	70°	70°	female	male	○
	M	2		—	110°	—	M	2	—	—	—	—	—	female	male	○
	Y	3		—	—	—	Y	3	β	112.5°	126°	112.5°	—	male	female	● ¹⁾
	R	5	α	—	—	—	R	5	α	—	—	—	95°	male	female	●
			β	—	—	—			β	—	—	—	115°			
			γ	—	—	—			γ	—	—	—	20°			
			δ	—	—	—			δ	—	—	—	30°			
			ε	—	—	—			ε	—	—	—	—			

Note:

FTG, FGY, ENY models are not available with all the keys. Please consult pages corresponding to these models.

For R●● models see explanation on page 21 and for S●● models see explanation on page 28.

¹⁾ only FGY and ENY models are available.

- First choice alternative
- Special order alternative

K Series

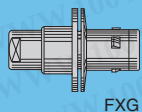
K series connectors have been specifically designed for outdoor applications. They include an inner sleeve and two seals to prevent penetration of solids or liquids into the housing formed by the plug, free socket, fixed socket or coupler. All models of this series are watertight when mated to give a protection index of IP68 as per IEC 60529 standard (in mated condition) when correctly assembled to an appropriate cable (IP66 otherwise).

K series connectors have the same insulators as the B series and have the following main features:

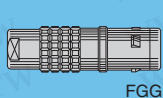
- security of the Push-Pull latching system
- multipole types 2 to 64 contacts
- keying system («G» key standard) for connector alignment
- 360° screening for full EMC shielding
- rugged housing for extreme working conditions.
- watertight connection (IP 68/IP 66)
- solder, crimp or print (straight or elbow) contacts
- multiple key options to avoid cross mating of similar connectors
- high packing density for space savings

Metal housing models (page 34)

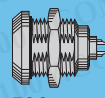
Fixed plugs



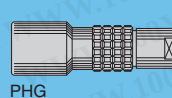
Straight plugs



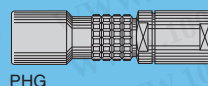
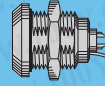
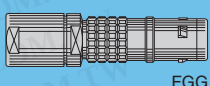
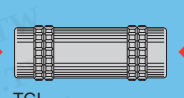
Fixed sockets



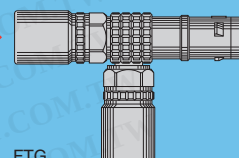
Free sockets



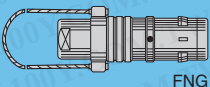
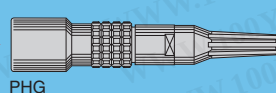
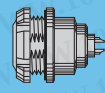
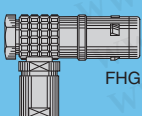
Free coupler



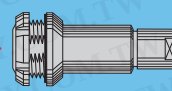
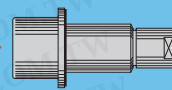
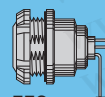
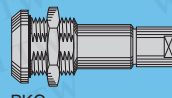
T-plug with sockets (90°)



Elbow plug

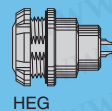
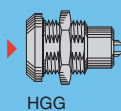


Fixed sockets

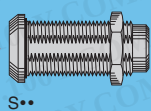


Watertight or vacuumtight models (page 41)

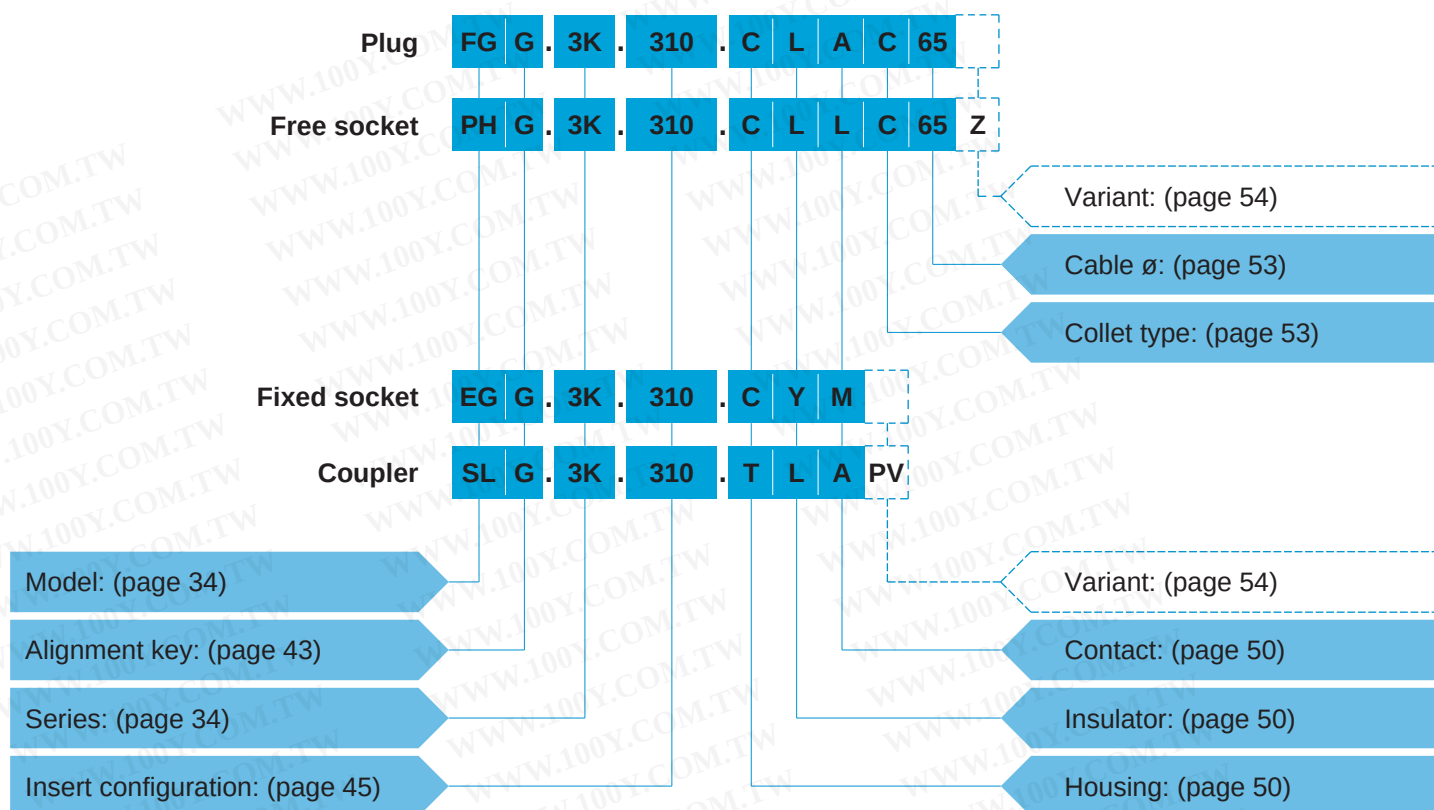
Fixed sockets



Fixed coupler



Part Numbering System



Part Number Example

Straight plug with cable collet:

FGG.3K.310.CLAC65 = straight plug with key (G) and cable collet, 3K series, multipole type with 10 contacts, outer shell in chrome-plated brass, PEEK insulator, male solder contacts, C type collet for 6.5 mm diameter cable.

Free socket:

PHG.3K.310.CLLC65Z = free socket with key (G) and cable collet, 3K series, multipole type with 10 contacts, outer shell in chrome-plated brass, PEEK insulator, female solder contacts, C type collet for 6.5 mm diameter cable and nut for fitting a bend relief.

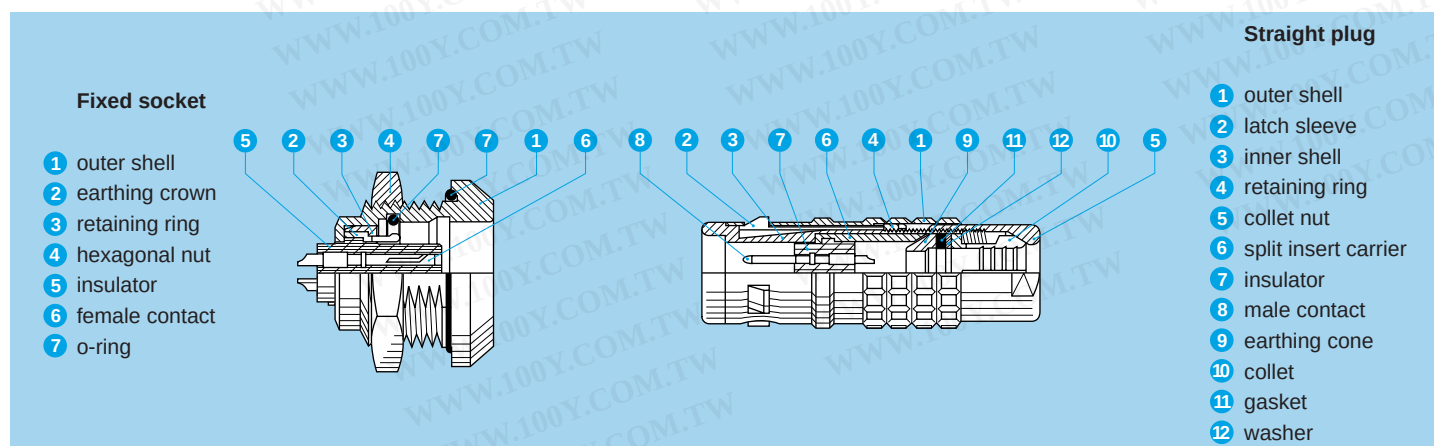
Fixed socket:

EGG.3K.310.CYM = fixed socket, nut fixing, with key (G), 3K series, multipole type with 10 contacts, outer shell in chrome-plated brass, PEEK extended insulator, female crimp contacts.

Fixed coupler:

SLG.3K.310.TLAPV = fixed coupler, nut fixing, keys (L) on the flange end and key (G) at the other end, 3K series, multipole type with 10 contacts, outer shell in stainless steel, PEEK insulator, male-female contacts, vacuumtight.

Part Section Showing Internal Components



Metal housing models

Technical Characteristics

Mechanical and Climatical

Characteristics	Value	Standard
Endurance	> 5000 cycles	IEC 60512-5 test 9a
Humidity	up to 95% at 60° C	
Temperature range ¹⁾	-55° C, +200° C	
Resistance to vibrations	10-2000 Hz, 15 g	IEC 60512-4 test 6d
Shock resistance	100 g, 6 ms	IEC 60512-4 test 6c
Salt spray corrosion test	> 144h	IEC 60512-6 test 11f
Protection index (mated) ²⁾	IP 68/IP 66	IEC 60529
Climatical category	50/175/21	IEC 60068-1

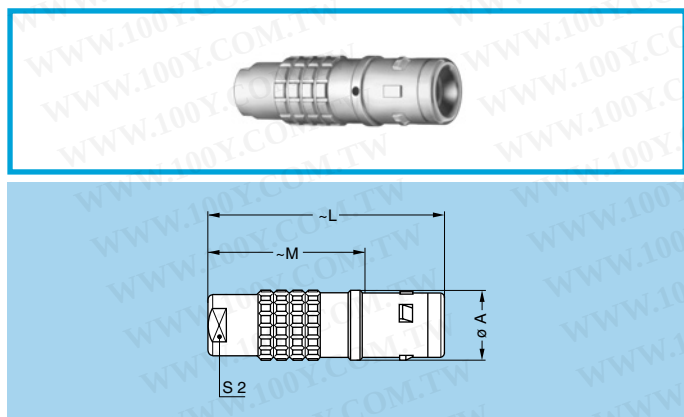
Electrical

Characteristics	Value	Standard
Shielding efficiency	at 10 MHz	> 95 dB
	at 1 GHz	> 80 dB
		IEC 60169-1-3

Note:

the various tests have been carried out with FGG and EGG connector pairs, with chrome-plated brass shell, PEEK insulator and silicone O-ring. Detailed electrical characteristics, as well as materials and treatment are presented in the chapter Technical Characteristics on page 171.

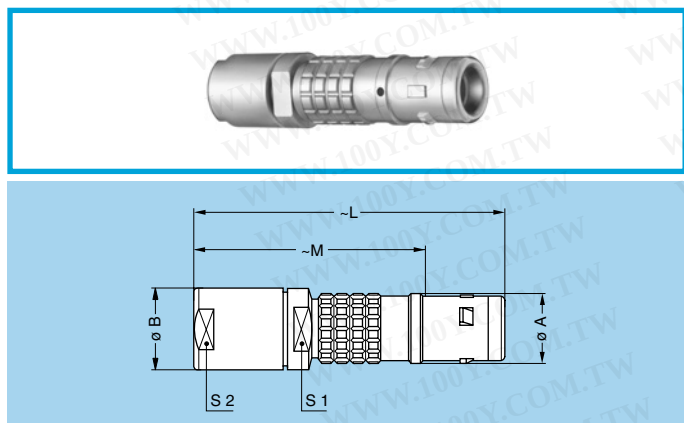
- ¹⁾ minimum operating temperature is -20° C for sockets fitted with an FPM (Viton®) O-ring.
²⁾ IP68 achieved providing that the cable is perfectly circular and that assembly process ensures a high integrity seal.



FGG Straight plug, key (G) or keys (A to F, L and R), cable collet

Reference		Dimensions (mm)			
Model	Series	A	L	M	S2
FGG	0K	11	34	23.0	8
FGG	1K	13	42	28.0	9
FGG	2K	16	52	36.0	12
FGG	3K	19	61	41.0	15
FGG	4K	25	71	50.5	19
FGG	5K	38	92	67.0	30

M1 Cable assembly (page 162)

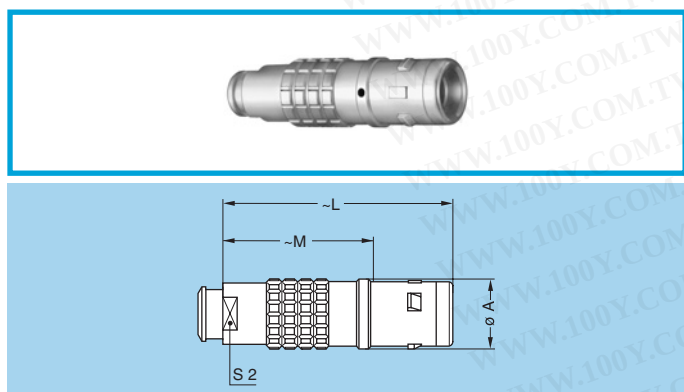


FGG Straight plug, key (G) or keys (A to F, L and R), cable collet and oversize cable collet ¹⁾

Reference		Dimensions (mm)					
Model	Series	A	B	L	M	S1	S2
FGG	1K	13	14.5	60.0	46	12	12
FGG	2K	16	17.0	68.0	52	15	15
FGG	3K	19	22.0	85.0	65	19	19
FGG	4K	25	36.0	119.5	99	30	32

M2 Cable assembly (page 163)

Note: ¹⁾ correspond to K type of collet, the fitting of oversize collets onto this model allows them to be fitted to the cables that can be accommodated by the next housing size up (see page 53).



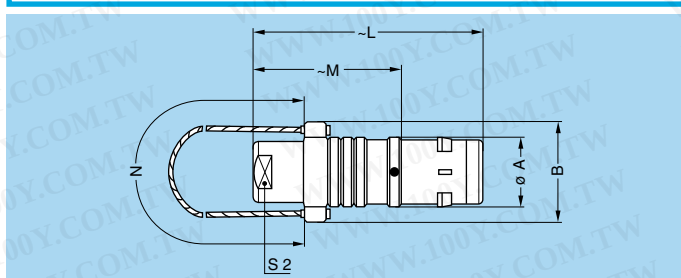
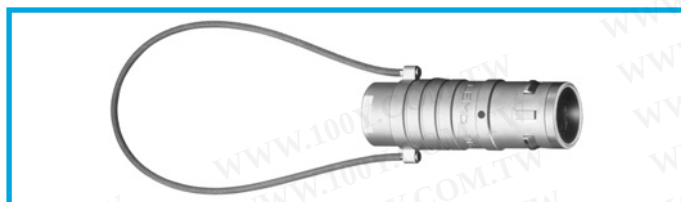
FGG Straight plug, key (G) or keys (A to F, L and R), cable collet and nut for fitting a bend relief ¹⁾

Reference		Dimensions (mm)			
Model	Series	A	L	M	S2
FGG	0K	11	34	23.0	7
FGG	1K	13	42	28.0	9
FGG	2K	16	52	36.0	12
FGG	3K	19	60	40.0	15
FGG	4K	25	71	50.5	19

M1

Cable assembly (page 162)

Note: ¹⁾ to order, add a «Z» at the end of the reference. The bend relief must be ordered separately (see page 141).

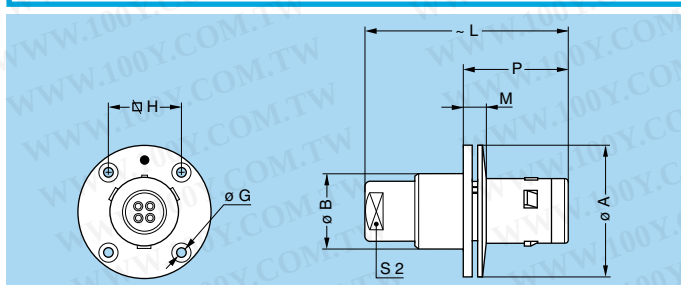
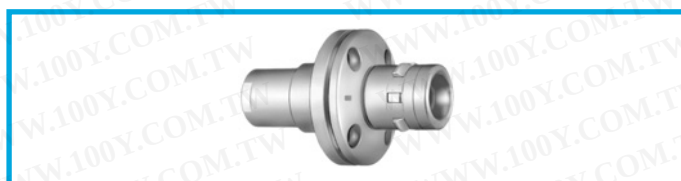


FNG Straight plug, key (G) or keys (A to F and L), cable collet and lanyard release

Reference		Dimensions (mm)						
Model	Series	A	B	L	M	N	S2	
FNG	2K	16	23.6	52	36.0	160	12	
FNG	4K	25	35.2	71	50.5	230	19	

M1 Cable assembly (page 162)

Note: cable material: stainless steel with Polyamide sheath

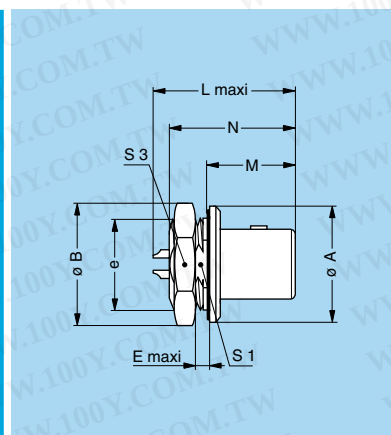


FXG Fixed plug with round flange, key (G) or keys (A to F, L and R) and screw fixing

Reference		Dimensions (mm)							
Model	Series	A	B	G	H	L	M	P	S2
FXG	3K	38	22.5	3.4	20.6	61	10.0	30.0	15
FXG	4K	47	28.5	3.4	27.0	71	11.0	32.0	19
FXG	5K	65	42.5	4.4	38.0	100	12.5	38.5	30

P6 Panel cut-out (page 153)

Note: this model does not include an O-ring behind the flange, it allows the device on which it is fitted to reach only IP50 protection index. It does not have a cable collet.

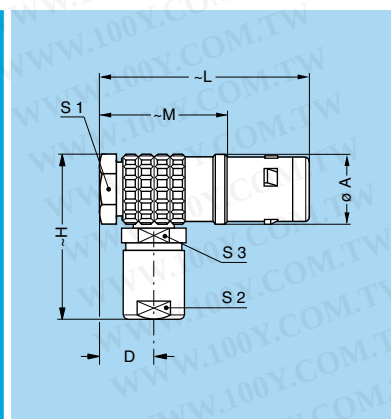


FAG Fixed plug, nut fixing, non-latching, key (G) or keys (A to F, L and R)

Reference		Dimensions (mm)								
Model	Series	A	B	e	E	L	M	N ¹⁾	S1	S3
FAG	1K	20	21.5	M16x1.0	2.3	22.6	16.0	22.5	14.5	19
FAG	2K	25	27.0	M20x1.0	4.5	33.6	18.0	28.3	18.5	24
FAG	3K	31	34.0	M24x1.0	4.0	34.3	22.5	33.8	22.5	30
FAG	4K	37	40.5	M30x1.0	4.0	35.3	23.0	36.3	28.5	36
FAG	5K	55	54.0	M45x1.5	4.0	43.5	28.5	42.3	42.5	—

P1 Panel cut-out (page 153)

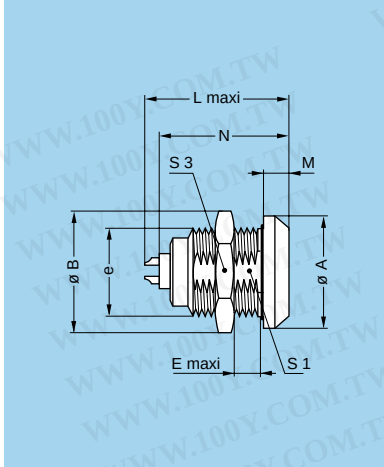
Note: ¹⁾ maximum length with crimp contacts. The 1K series is delivered with a locking washer. The 5K series is delivered with a round nut.



FHG Elbow (90°) plug, key (G) or keys (A to F, L and R), cable collet

Reference		Dimensions (mm)							
Model	Series	A	D	H	L	M	S1	S2	S3
FHG	0K	11.5	7.6	27	36	25.0	10	8	8
FHG	1K	14.0	8.8	33	43	29.0	12	9	10
FHG	2K	17.5	10.5	40	51	35.0	15	12	13
FHG	3K	21.0	11.5	47	60	40.0	18	15	15
FHG	4K	27.5	15.5	57	72	51.5	24	19	20

M3 Cable assembly (page 162)

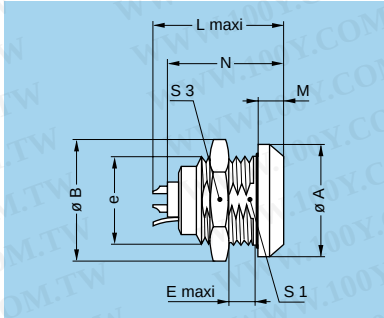


EGG Fixed socket, nut fixing, key (G) or keys (A to F, L and R)

Reference		Dimensions (mm)								
Model	Series	A	B	e	E	L	M	N ¹⁾	S1	S3
EGG	0K	18	19.2	M14x1.0	6	21.7	4.0	20.1	12.5	17
EGG	1K	20	21.5	M16x1.0	9	27.0	4.5	25.1	14.5	19
EGG	2K	25	27.0	M20x1.0	9	30.7	5.0	28.6	18.5	24
EGG	3K	31	34.0	M24x1.0	11	36.2	6.0	33.6	22.5	30
EGG	4K	37	40.5	M30x1.0	9	40.2	6.5	38.6	28.5	36
EGG	5K	55	54.0	M45x1.5	10	47.5	9.0	43.6	42.5	—

P1 Panel cut-out (page 153)

Note: ¹⁾ maximum length with crimp contacts.
The 5K series is delivered with a round nut.

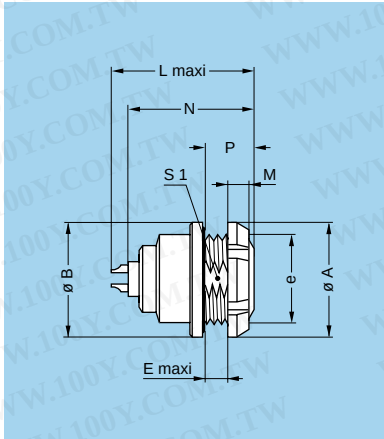


ENG Fixed socket, nut fixing, key (G) or keys (A to F, L and R) and earthing tag

Reference		Dimensions (mm)								
Model	Series	A	B	e	E	L	M	N ¹⁾	S1	S3
ENG	3K	31	34	M24x1.0	11.3	36.2	6	33.6	22.5	30

P1 Panel cut-out (page 153)

Note: ¹⁾ maximum length with crimp contacts.

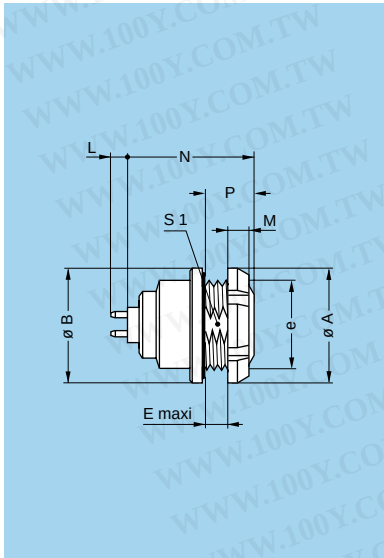


EEG Fixed socket, nut fixing, key (G) or keys (A to F, L and R) (back panel mounting)

Reference		Dimensions (mm)								
Model	Series	A	B	e	E	L	M	N ¹⁾	P	S1
EEG	0K	18.0	18	M14x1.0	3.4	21.7	3.5	20.1	7.0	12.5
EEG	1K	20.0	20	M16x1.0	6.2	27.0	3.5	25.1	10.0	14.5
EEG	2K	25.0	25	M20x1.0	5.0	30.7	3.5	28.6	10.0	18.5
EEG	3K	30.0	31	M24x1.0	7.5	36.2	4.5	33.6	12.0	22.5
EEG	4K	41.5	37	M30x1.0	6.0	40.2	7.0	38.6	13.5	28.5

P1 Panel cut-out (page 153)

Note: ¹⁾ maximum length with crimp contacts.
The 3K and 4K series are delivered with a conical nut.



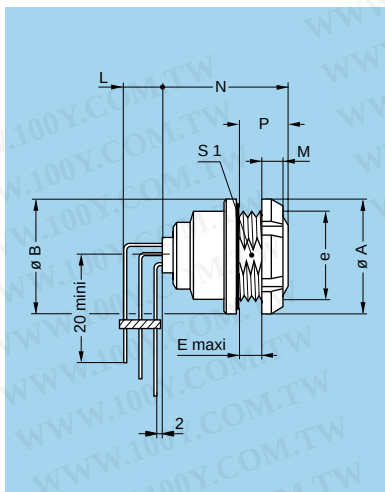
EEG Fixed socket, nut fixing, key (G) or keys (A to F and R) with straight print contacts for printed circuit (back panel mounting)

Reference		Dimensions (mm)							
Model	Series	A	B	e	E	M	N	P	S1
EEG	0K	18.0	18	M14x1.0	3.4	3.5	17.6	7.0	12.5
EEG	1K	20.0	20	M16x1.0	6.2	3.5	23.8	10.0	14.5
EEG	2K	25.0	25	M20x1.0	5.0	3.5	25.8	10.0	18.5
EEG	3K	30.0	31	M24x1.0	7.5	4.5	31.3	12.0	22.5
EEG	4K	41.5	37	M30x1.0	6.0	7.0	34.3	13.5	28.5

P1 Panel cut-out (page 153)

P15 PCB drilling pattern (page 154)

Note: this contact type is available for E●● socket models fitted with female contact.
Length «L» depends on the number of contacts, see table page 156.
The 3K and 4K series are delivered with a conical nut.



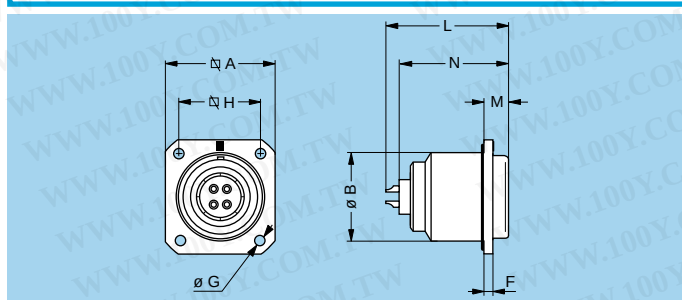
EEG Fixed socket, nut fixing, key (G) or keys (A to F and R) with elbow (90°) contacts for printed circuit (back panel mounting)

Reference		Dimensions (mm)								
Model	Series	A	B	e	E	M	N	P	S1	
EEG	0K	18	18	M14x1.0	3.4	3.5	19.3	7	12.5	
EEG	1K	20	20	M16x1.0	6.2	3.5	24.3	10	14.5	
EEG	2K	25	25	M20x1.0	5.0	3.5	26.6	10	18.5	
EEG	3K	30	31	M24x1.0	7.5	4.5	31.3	12	22.5	

P1 Panel cut-out (page 153)

P17 PCB drilling pattern (page 157)

Note: length «L» depends on the number of contacts, see PCB drilling pattern page 157. The 3K series is delivered with a conical nut.

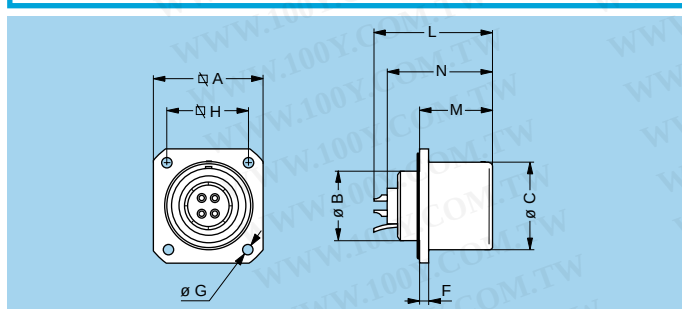


EBG Fixed socket with square flange, key (G) or keys (A to F, L and R) and screw fixing

Reference		Dimensions (mm)							
Model	Series	A	B	F	G	H	L	M	N ¹⁾
EBG	3K	29	23	3	3.4	23	36.2	6.0	32.6
EBG	4K	37	30	3	3.4	29	40.2	6.5	36.6
EBG	5K	54	45	4	4.4	44	47.5	8.0	42.1

P7 Panel cut-out (page 153)

Note: ¹⁾ maximum length with crimp contacts.

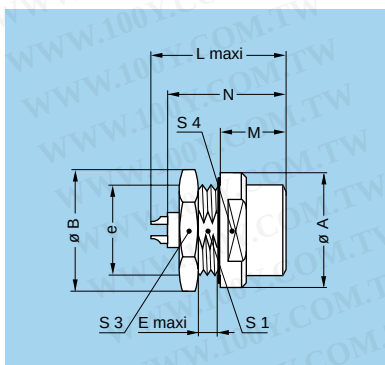


EDG Fixed socket with square flange, key (G) or keys (A to F, L and R), protruding shell and earthing tag, screw fixing

Reference		Dimensions (mm)								
Model	Series	A	B	C	F	G	H	L	M	N ¹⁾
EDG	3K	29	18	23	3	3.4	23	36.2	22.5	32.6

P7 Panel cut-out (page 153)

Note: ¹⁾ maximum length with crimp contacts.

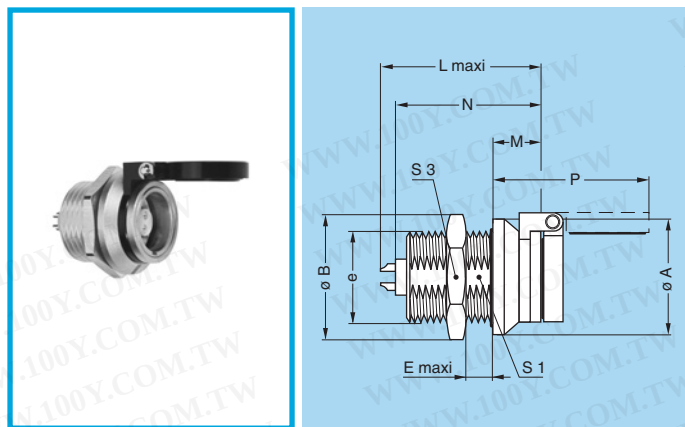


EHG Fixed socket, nut fixing, key (G) or keys (A to F and L), protruding shell

Reference		Dimensions (mm)									
Model	Series	A	B	e	E	L	M	N ¹⁾	S1	S3	S4
EHG	0K	18	19.2	M14x1.0	1.5	21.7	10.5	20.1	12.5	17	15
EHG	1K	20	21.5	M16x1.0	1.5	27.0	15.5	25.1	14.5	19	17
EHG	2K	25	27.0	M20x1.0	1.5	30.7	17.0	27.1	18.5	24	20

P1 Panel cut-out (page 153)

Note: ¹⁾ maximum length with crimp contacts.

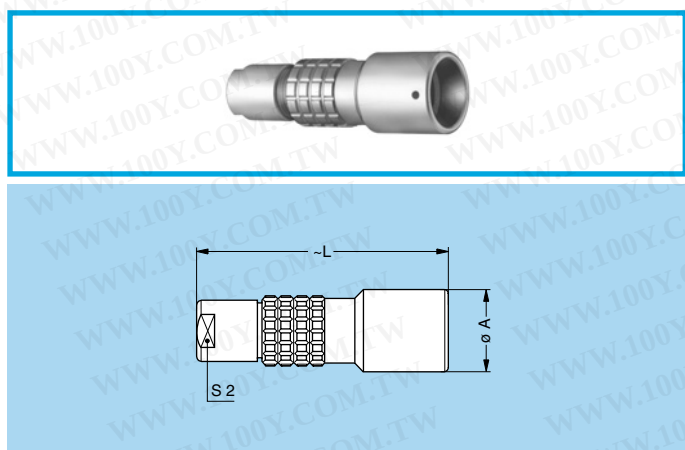


EVG Fixed socket, nut fixing, key (G) or keys (A to F and L) and dust cap (spring loaded)

Reference		Dimensions (mm)									
Model	Series	A	B	e	E	L	M	N ¹⁾	P	S1	S3
EVG	0K	18	19.2	M14x1.0	6.5	24.8	6.3	23.3	23.3	12.5	17

P1 Panel cut-out (page 153)

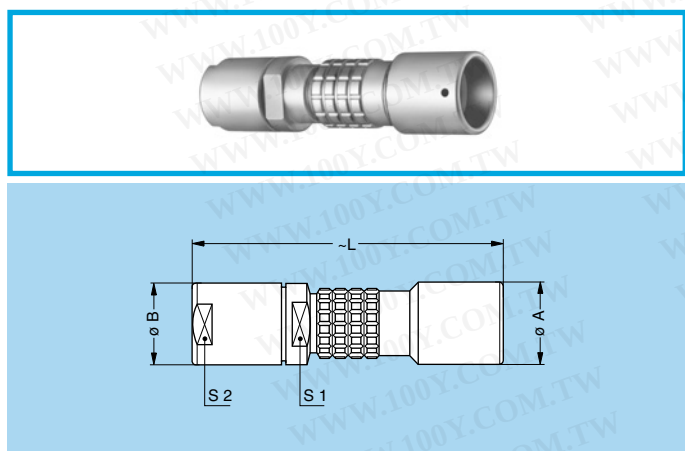
Note: 1) maximum length with crimp contacts.



PHG Free socket, key (G) or keys (A to F, L and R), cable collet

Reference		Dimensions (mm)		
Model	Series	A	L	S2
PHG	0K	13	34.0	8
PHG	1K	15	45.0	9
PHG	2K	19	54.0	12
PHG	3K	23	65.0	15
PHG	4K	29	75.5	19
PHG	5K	42	95.0	32

M1 Cable assembly (page 162)

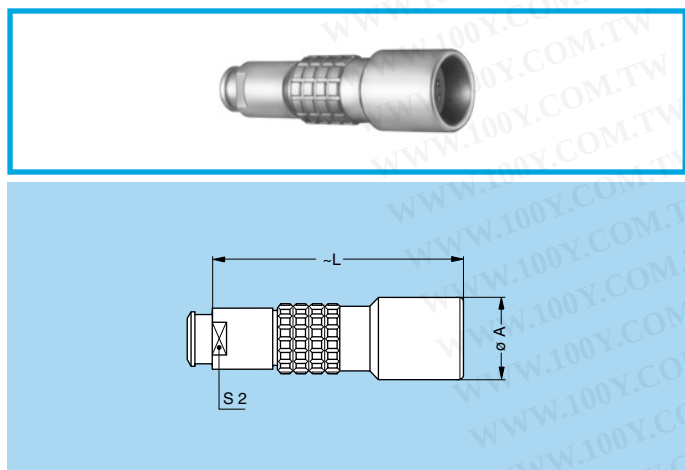


PHG Free socket, key (G) or keys (A to F, L and R), cable collet and oversize cable collet 1)

Reference		Dimensions (mm)				
Model	Series	A	B	L	S1	S2
PHG	1K	15	14.5	63	12	12
PHG	2K	19	17.0	70	15	15
PHG	3K	23	22.0	89	19	19
PHG	4K	29	36.0	124	30	32

M2 Cable assembly (page 163)

Note: 1) correspond to K type of collet, the fitting of oversize collets onto this model allows them to be fitted to the cables that can be accommodated by the next housing size up (see page 53).



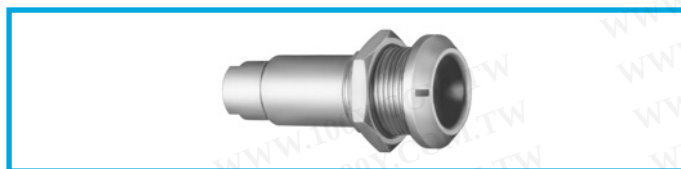
PHG Free socket, key (G) or keys (A to F, L and R), cable collet and nut for fitting a bend relief 1)

Reference		Dimensions (mm)		
Model	Series	A	L	S2
PHG	0K	13	34.0	7
PHG	1K	15	45.0	9
PHG	2K	19	54.0	12
PHG	3K	23	64.0	15
PHG	4K	29	75.5	19

M1 Cable assembly (page 162)

Note: 1) to order, add a «Z» at the end of the reference.

The bend relief must be ordered separately (see page 141).



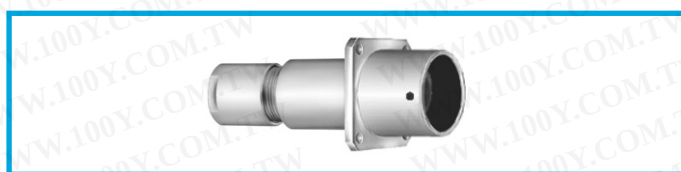
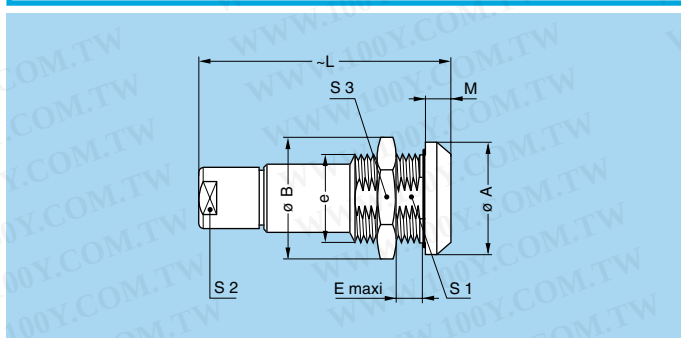
PKG Fixed socket, nut fixing, key (G)
or keys (A to F, L and R), cable collet

Reference		Dimensions (mm)								
Model	Series	A	B	e	E	L	M	S1	S2	S3
PKG	0K	18	19.2	M14x1.0	6.0	34.0	4.0	12.5	8	17
PKG	1K	20	21.5	M16x1.0	9.0	45.0	4.5	14.5	9	19
PKG	2K	25	27.0	M20x1.0	9.0	54.0	5.0	18.5	12	24
PKG	3K	31	34.0	M24x1.0	11.5	65.0	6.0	22.5	15	30
PKG	4K	37	40.5	M30x1.0	9.0	75.5	6.5	28.5	19	36
PKG	5K	55	54.0	M45x1.0	15.0	98.0	9.0	42.5	30	—

P1 Panel cut-out (page 153)

M1 Cable assembly (page 162)

Note: the 5K series is delivered with a round nut.

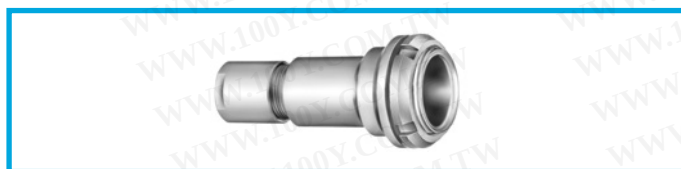
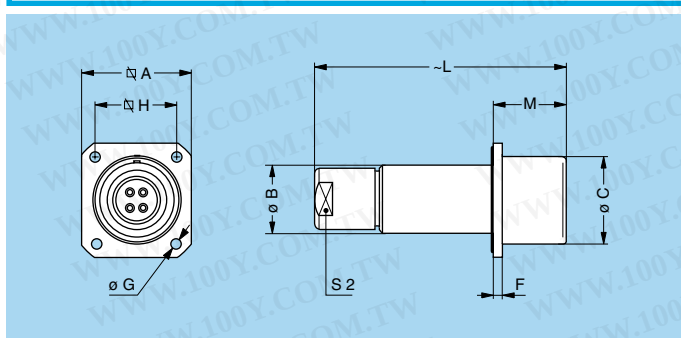


PBG Fixed socket, key (G) with square flange,
cable collet and screw fixing

Reference		Dimensions (mm)								
Model	Series	A	B	C	F	G	H	L	M	S2
PBG	3K	29	19	23	3	3.4	23	65	22.5	15

P7 Panel cut-out (page 153)

M1 Cable assembly (page 162)



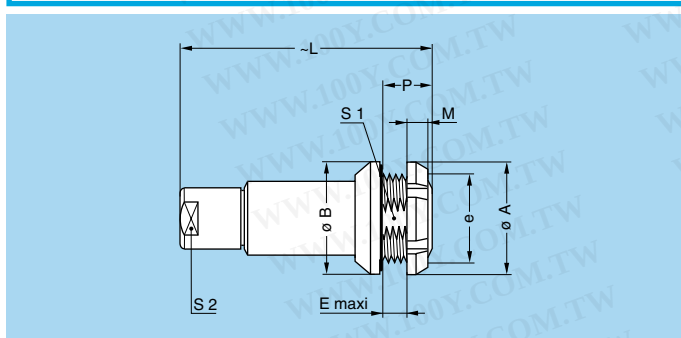
PEG Fixed socket, nut fixing, key (G)
or keys (A to F, L and R), cable collet
(back panel mounting)

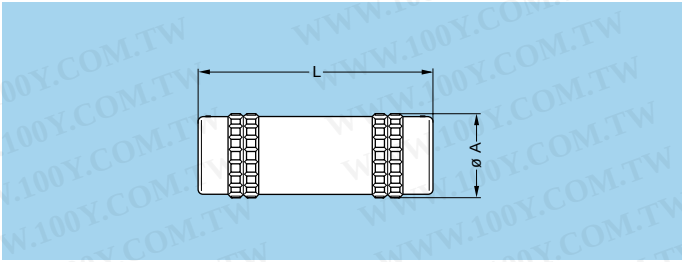
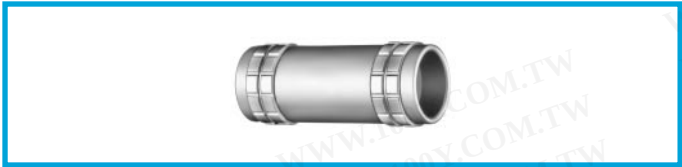
Reference		Dimensions (mm)								
Model	Series	A	B	e	E	L	M	P	S1	S2
PEG	0K	18	18	M14x1.0	5.0	34	3.5	8.5	12.5	8
PEG	1K	20	20	M16x1.0	6.5	45	3.5	10.0	14.5	9
PEG	2K	25	25	M20x1.0	4.0	54	3.5	7.5	18.5	12
PEG	3K	30	31	M24x1.0	7.5	65	4.5	12.0	22.5	15

P1 Panel cut-out (page 153)

M1 Cable assembly (page 162)

Note: the 3K series is delivered with a conical nut.

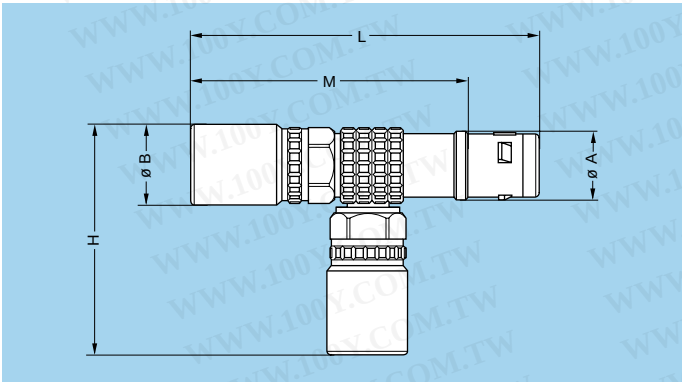
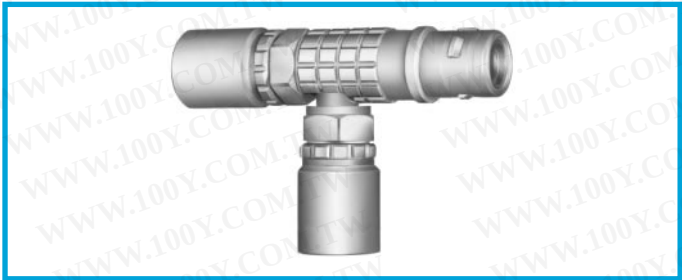




TGL Free coupler, key (G) on one side and keys (L) on the other

Reference	Dim. (mm)	
	A	L
TGL.3K.3●●.CLLP	24	64.2

Note: this model is only available in type 308, 310, 316, 318, 320, 324 and 330.



FTG T-plug, key (G) with sockets (90°), key (G)

Reference	Dimensions (mm)				
	A	B	H	L	M
FTG.2K.304.CLF	16	19	48	77	60
FTG.2K.308.CLF	16	19	48	77	60



Watertight or vacuumtight models

These socket and coupler models allow the device on which they are fitted to reach a protection index of IP68 as per IEC 60529. They are fully compatible with plugs of the same series and are widely used for portable radios, military, laboratory equipment, aviation, etc.

These models are identified by a letter «P» at the end of the reference.

Most of these models are also available in a vacuumtight version. Such models are identified by an additional letter «V» at the end of the part number (certificate on request).

Epoxy resin is used to seal these models.

Technical Characteristics

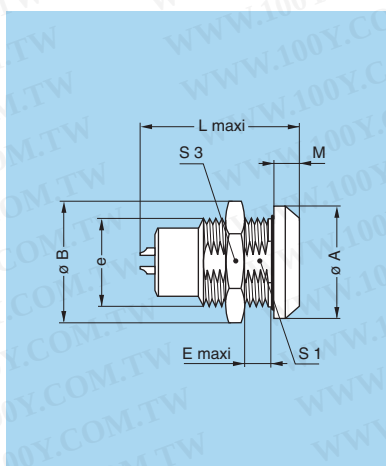
Mechanical and Climatical

Characteristics	Value	Standard
Endurance	> 5000 cycles	IEC 60512-5 test 9a
Humidity	up to 95% at 60° C	
Temperature range (0K-1K)	-20° C/+100° C	
Temperature range (2K to 5K)	-20° C/+80° C	
Salt spray corrosion test	> 144h	IEC 60512-6 test 11f
Climatical category	20/80/21	IEC 60068-1
Leakage rate (He) ¹⁾	< 10 ⁻⁷ mbar.l.s ⁻¹	IEC 60512-7 test 14b

Note: ¹⁾ only for vacuumtight models.

Characteristics	Value	Standard
Maximum operating pressure ²⁾	0K	60 bars
	1K	60 bars
	2K	40 bars
	3K	30 bars
	4K	15 bars
	5K	5 bars

Note: ²⁾ this value corresponds to the maximum allowed pressure difference for the assembled socket.

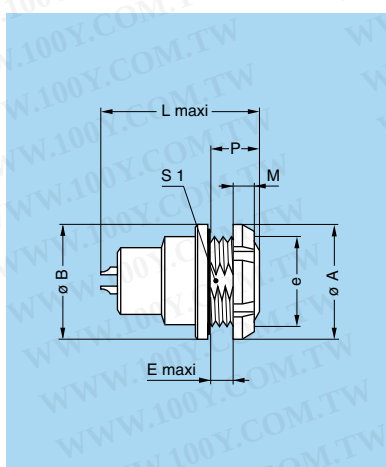


HGG Fixed socket, nut fixing, key (G) or keys (A to F and L), watertight or vacuumtight

Reference		Dimensions (mm)							
Model	Series	A	B	e	E	L	M	S1	S3
HGG	0K	18	19.2	M14x1.0	5.5	22.5	4.0	12.5	17
HGG	1K	20	21.5	M16x1.0	9.0	30.0	4.5	14.5	19
HGG	2K	25	27.0	M20x1.0	13.0	33.7	5.0	18.5	24
HGG	3K	31	34.0	M24x1.0	16.0	41.7	6.0	22.5	30
HGG	4K	37	40.5	M30x1.0	14.0	49.2	6.5	28.5	36
HGG	5K	55	54.0	M45x1.5	10.0	55.7	9.0	42.5	—

P1 Panel cut-out (page 153)

Note: the 5K series is delivered with a round nut.

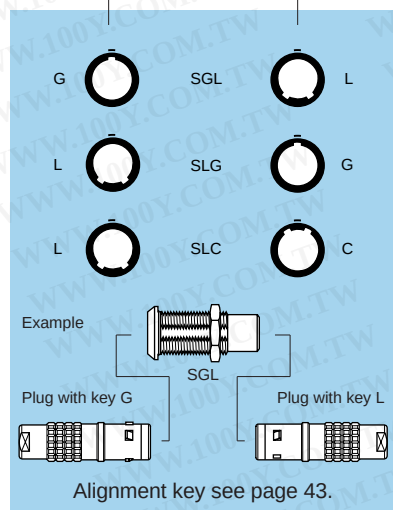
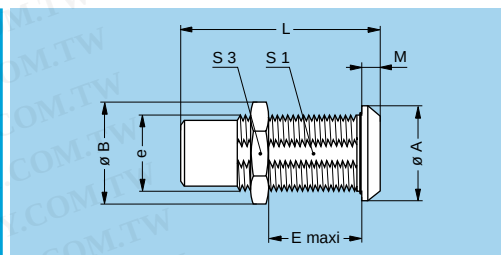


HEG Fixed socket, nut fixing, key (G) or keys (A to F and L), watertight or vacuumtight (back panel mounting)

Reference		Dimensions (mm)							
Model	Series	A	B	e	E	L	M	P	S1
HEG	0K	18	18	M14x1.0	2.4	22.5	3.5	7	12.5
HEG	1K	20	20	M16x1.0	6.2	30.0	3.5	10	14.5
HEG	2K	25	25	M20x1.0	5.0	33.7	3.5	10	18.5

P1 Panel cut-out (page 153)

A technical diagram of a bolt and nut assembly. The bolt is on the left, and the nut is on the right. Two arrows point towards each other, one from the left and one from the right, indicating the direction of force or movement. The diagram is set against a light blue background with a faint watermark.



Reference		Contacts	Dimensions (mm)							
Model	Series	Type	A	B	e	E	L	M	S1	S3
SGL	2K	female – male	25	27.0	M20x1.0	25	52.4	5.0	18.5	24
SLG		male – female								
SLG	3K	male – female	31	34.0	M24x1.0	33	64.0	6.0	22.5	30
SLG	4K	male – female	37	40.5	M30x1.0	48	74.0	6.5	28.5	36
SLC										
SLG	5K	male – female	55	54.0	M45x1.5	58	88.0	9.0	42.5	–
SLC										

Note: for this fixed coupler, the first contact type mentioned is always the one at the flange end.
On request, these couplers can be produced in other series, with other keys.
The 5K series is delivered with a round nut.

Alignment Key (K series)

Alignment Key and Polarized Keying System

K series connector model part numbers are composed of three letters. The LAST LETTER indicates the key position and the contact type (male or female).

Front view of a socket	Reference	Nb of keys	Angles	Series						Contact type		Note
				0K	1K	2K	3K	4K	5K	Plug	Socket	
				0°	0°	0°	0°	0°	0°	male	female	
	G	1		0°	0°	0°	0°	0°	0°	male	female	●
	A	2		30°	30°	30°	30°	30°	30°	male	female	●
	B	2	α	45°	45°	45°	45°	45°	45°	male	female	●
	C	2		60°	60°	60°	60°	60°	60°	male	female	●
	D	2	γ	95°	95°	95°	95°	95°	95°	male	female	○
	E	2	β	120°	120°	120°	120°	120°	120°	male	female	○
	F	2		145°	145°	145°	145°	145°	145°	male	female	○
	L	2	γ	75°	75°	75°	75°	75°	75°	female	male	●
	Reference	Nb of keys	Angles	Series						Contact type		Note
				0K	1K	2K	3K	4K	5K	Plug	Socket	
	R	5	α	—	—	—	95°	—	—	male	female	●
			β	—	—	—	115°	—	—			
			γ	—	—	—	35°	—	—			
			δ	—	—	—	25°	—	—			

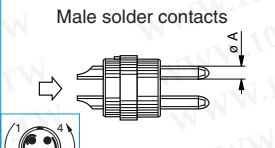
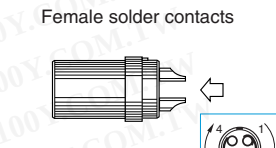
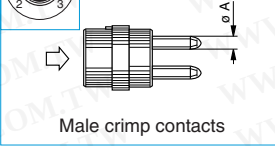
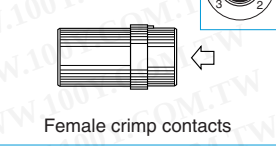
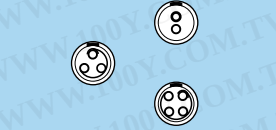
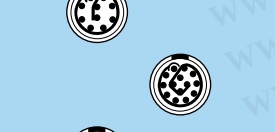
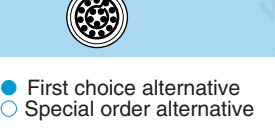
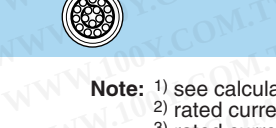
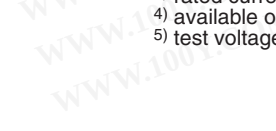
Note: S●● and TGL models are not available with all the keys. For S●● models see explication on page 42. Please consult the pages corresponding to these models.

- First choice alternative
- Special order alternative



Insert configuration (B and K series)

Multipole

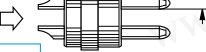
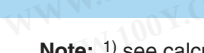
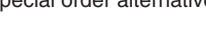
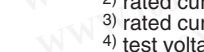
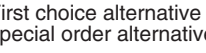
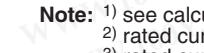
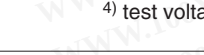
	 Male solder contacts	 Female solder contacts	Reference	Number of contacts	ø A (mm)	Contact type				Solder contact		Crimp contact		Rated current (A) ¹⁾
						Solder	Crimp	Print (straight)	Print (elbow)	Test voltage (kV rms) ¹⁾ Contact-contact	Test voltage (kV rms) ^{1) 5)} Contact-shell	Test voltage (kV rms) ¹⁾ Contact-contact	Test voltage (kV rms) ^{1) 5)} Contact-shell	
00	 Male crimp contacts	 Female crimp contacts												
			302	2	0.5	●	●	●	●	1.00	0.95	1.15	1.20	5.0
			303	3	0.5	●	●	●	●	0.80	0.95	1.35	1.10	3.0
0B 0K			304	4	0.5	●	●	●	●	0.80	0.65	1.05	1.05	2.0
			302	2	0.9	●	●	●	●	1.30	1.05	1.45	1.20	10.0 ²⁾
			303	3	0.9	●	●	●	●	1.20	0.90	1.70	1.60	8.0 ²⁾
			304	4	0.7	●	●	●	●	0.85	0.70	1.35	1.10	7.0 ²⁾
			305	5	0.7	●	●	●	●	1.00	0.70	1.25	1.20	6.5 ²⁾
			306	6	0.5	●	○ ⁴⁾	●	●	0.85	0.65	1.40	1.20	2.5
			307	7	0.5	●	○ ⁴⁾	●	●	0.80	0.70	1.40	1.20	2.5
1B 1K			309	9	0.5	●	○ ⁴⁾	●	○	0.60	0.50	1.00	0.85	2.0
			302	2	1.3	●	●	●	●	1.50	1.35	1.70	1.45	15.0 ³⁾
			303	3	1.3	●	●	●	●	1.30	1.55	1.60	1.85	12.0
			304	4	0.9	●	●	●	●	1.35	1.45	1.70	1.80	10.0 ²⁾
			305	5	0.9	●	●	●	●	1.25	1.15	1.30	1.55	9.0 ²⁾
			306	6	0.7	●	●	●	●	1.05	1.20	1.35	1.45	7.0 ²⁾
			307	7	0.7	●	●	●	●	0.95	1.05	1.45	1.45	7.0 ²⁾
			308	8	0.7	●	●	●	●	0.95	1.15	1.30	1.30	5.0
			310	10	0.5	●	○ ⁴⁾	●	●	0.90	1.50	1.20	1.80	2.5
			314	14	0.5	●	○ ⁴⁾	●	●	0.80	1.20	0.95	1.60	2.0
			316	16	0.5	●	○ ⁴⁾	●	○	0.80	1.25	0.95	1.60	1.5

- First choice alternative
- Special order alternative

Note: 1) see calculation method, caution and suggested standard on page 178.
 2) rated current = 6A for socket with elbow (90°) contact for printed circuit.
 3) rated current = 12A for socket with elbow (90°) contact for printed circuit.
 4) available only for connectors fitted with male contacts.
 5) test voltage (kV) contact-shell may be lower for K series (values shown here are for B series).

Multipole

2B
2K

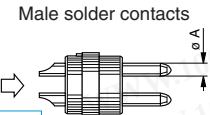
Male solder contacts		Female solder contacts		Reference	Number of contacts	ø A (mm)	Contact type				Solder contact		Crimp contact		Rated current (A) ¹⁾
							Solder	Crimp	Print (straight)	Print (elbow)	Test voltage (kV rms) ¹⁾ Contact-contact	Test voltage (kV rms) ^{1) 4)} Contact-shell	Test voltage (kV rms) ¹⁾ Contact-contact	Test voltage (kV rms) ^{1) 4)} Contact-shell	
				302	2	2.0	●	●	●	●	2.10	1.75	2.85	2.70	25.0 ³⁾
				303	3	1.6	●	●	●	●	2.40	1.85	1.90	1.90	17.0 ³⁾
				304	4	1.3	●	●	●	●	1.85	1.85	2.20	2.20	15.0 ³⁾
				305	5	1.3	●	●	●	●	1.75	1.60	2.15	2.15	14.0 ³⁾
				306	6	1.3	●	●	●	●	1.35	1.45	2.00	2.35	12.0
				307	7	1.3	●	●	●	●	1.75	1.60	1.95	2.15	11.0
				308	8	0.9	●	●	●	●	1.50	1.25	1.95	1.95	10.0 ²⁾
				310	10	0.9	●	●	●	●	1.45	1.30	1.80	2.10	8.0 ²⁾
				312	12	0.7	●	●	●	●	1.25	1.35	1.65	2.00	7.0 ²⁾
				314	14	0.7	●	●	●	●	1.15	1.35	1.55	1.55	6.5 ²⁾
				316	16	0.7	●	●	●	●	0.95	1.25	1.55	1.75	6.0
				318	18	0.7	●	●	●	●	0.85	1.20	1.45	2.10	5.5
				319	19	0.7	●	●	●	●	0.95	1.25	1.55	1.65	5.0
				326	26	0.5	●	—	●	○	0.95	1.30	1.20	1.80	2.0
				332	32	0.5	●	—	●	○	0.80	1.2	0.95	1.60	1.5

● First choice alternative
○ Special order alternative

Note: 1) see calculation method, caution and suggested standard on page 178.
2) rated current = 6A for socket with elbow (90°) contact for printed circuit.
3) rated current = 12A for socket with elbow (90°) contact for printed circuit.
4) test voltage (kV) contact-shell is a little bit lower for K series (values here are for B series).



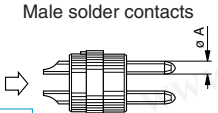
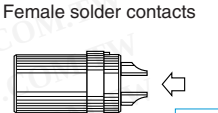
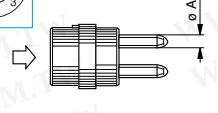
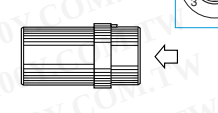
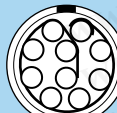
Multipole

	Male solder contacts		Female solder contacts		Reference	Number of contacts	ø A (mm)	Contact type				Solder contact		Crimp contact		Rated current (A) ¹⁾
								Solder	Crimp	Print (straight)	Print (elbow)	Test voltage (kV rms) ¹⁾ Contact-contact	Test voltage (kV rms) ¹⁾ ³⁾ Contact-shell	Test voltage (kV rms) ¹⁾ Contact-contact	Test voltage (kV rms) ¹⁾ ³⁾ Contact-shell	
3B 3K	Male crimp contacts		Female crimp contacts		302	2	3.0	●	●	○	—	2.10	1.55	2.30	1.80	35.0
					303	3	2.0	●	●	●	○	1.90	1.50	3.20	2.65	25.0
					304	4	2.0	●	●	●	○	1.45	1.25	2.50	2.20	19.0
					305	5	1.6	●	●	●	○	1.90	1.25	2.40	1.75	19.0
					306	6	1.6	●	●	●	○	1.60	1.15	1.90	1.80	17.0
					307	7	1.6	●	●	●	○	1.70	1.25	2.00	2.05	15.0
					308	8	1.3	●	●	●	●	1.65	1.15	1.85	1.75	13.0
					309	8 1	1.3 2.0	●	●	●	—	1.35 1.35	1.05 1.05	1.10 1.10	1.05 1.05	6.0 15.0
					310	10	1.3	●	●	●	○	1.25	0.90	1.50	1.80	12.0
					312	12	0.9	●	●	●	●	1.45	1.00	1.65	1.85	9.0
					314	14	0.9	●	●	●	●	1.20	1.20	1.80	1.65	9.0 ²⁾
					316	16	0.9	●	●	●	●	1.20	0.85	1.80	1.50	8.0
					318	18	0.9	●	●	●	●	1.20	1.05	1.85	1.60	7.0
					320	20	0.7	●	●	●	●	1.00	0.90	1.35	1.55	6.0
					322	22	0.7	●	●	●	○	1.00	0.90	1.70	1.45	5.5
					324	24	0.7	●	●	●	●	0.95	0.80	1.35	1.35	4.0
					326	26	0.7	●	●	●	○	0.95	0.70	1.50	1.30	4.0
					330	30	0.7	●	●	●	●	0.80	0.70	1.35	1.20	3.5

- First choice alternative
○ Special order alternative

Note: 1) see calculation method, caution and suggested standard on page 178.
2) rated current = 6A for socket with elbow (90°) contact for printed circuit.
3) test voltage (kV) contact-shell is a little bit lower for K series (values here are for B series).

Multipole

	Male solder contacts		Female solder contacts		Reference	Number of contacts	ø A (mm)	Contact type			Solder contact		Crimp contact		Rated current (A) ¹⁾
	Male crimp contacts		Female crimp contacts					Solder	Crimp	Print (straight)	Test voltage (kV rms) ¹⁾ Contact-contact	Test voltage (kV rms) ^{1) 2)} Contact-shell	Test voltage (kV rms) ¹⁾ Contact-contact	Test voltage (kV rms) ^{1) 2)} Contact-shell	
4B 4K					304	4	3.0	●	●	○	2.10	1.50	1.80	1.20	30.0
					306	6	2.0	●	●	○	2.00	1.75	2.75	2.40	24.0
					307	7	2.0	●	●	○	2.00	1.80	1.50	1.35	20.0
					310	10	1.6	●	●	○	1.85	1.30	1.90	1.95	17.0
					312	12	1.3	●	●	○	1.45	1.60	1.90	1.85	12.0
					316	16	0.9	●	●	●	1.35	1.50	2.30	2.10	10.0
					320	20	0.9	●	●	●	1.35	1.00	1.05	0.95	8.0
					324	24	0.9	●	●	●	1.20	1.45	1.80	2.05	7.0
					330	30	0.9	●	●	●	0.95	0.85	1.75	1.45	5.0
					340	40	0.7	●	●	●	0.90	0.90	1.30	1.30	2.0
					348	48	0.7	●	●	●	0.70	0.70	1.00	1.00	1.5

- First choice alternative
○ Special order alternative

Note: ¹⁾ see calculation method, caution and suggested standard on page 178.
²⁾ test voltage (kV) contact-shell is a little bit lower for K series (values here are for B series).



Multipole

	Male solder contacts	Female solder contacts	Reference	Number of contacts	ø A (mm)	Contact type			Solder contact		Crimp contact		Rated current (A) ¹⁾
						Solder	Crimp	Print (straight)	Test voltage (kV rms) ¹⁾ Contact-contact	Test voltage (kV rms) ^{1) 2)} Contact-shell	Test voltage (kV rms) ¹⁾ Contact-contact	Test voltage (kV rms) ^{1) 2)} Contact-shell	
5B 5K			302	2	6.0	●	—	—	3.60	2.95	—	—	50.0
			304	4	4.0	●	●	○	2.95	2.65	3.20	2.40	35.0
			310	10	3.0	●	●	○	2.35	2.30	2.65	3.20	20.0
			314	14	2.0	●	●	○	2.10	2.00	2.85	2.95	18.0
			316	16	2.0	●	●	○	1.85	1.95	2.45	3.05	12.0
			320	20	1.6	●	●	○	1.90	1.70	2.20	2.40	10.0
			330	30	1.3	●	●	○	1.45	1.60	2.05	2.45	8.0
			340	40	1.3	●	●	○	1.30	1.45	2.00	1.95	7.0
			348	48	1.3	●	●	●	1.20	1.10	2.00	1.55	6.0
			350	50	0.9	●	●	●	1.30	1.60	1.20	1.45	6.0
			354	54	0.9	●	●	●	1.15	1.55	2.00	2.10	5.0
			364	64	0.9	●	●	●	1.30	1.55	1.35	1.85	3.0

- First choice alternative
○ Special order alternative

Note: ¹⁾ see calculation method, caution and suggested standard on page 178.
²⁾ test voltage (kV) contact-shell is a little bit lower for K series (values here are for B series).



Housings (B and K series)

Ref.	Outer shell and collet nut		Latch sleeve + earthing crown		Other metallic components		Remarks	Note
	Material	Surf. treatment	Material	Surf. treatment	Material	Surf. treatment		
C	Brass	chrome	brass/bronze	nickel ²⁾	brass	nickel		●
N	Brass	nickel	brass/bronze	nickel ²⁾	brass	nickel		○
K	Brass	black chrome	brass/bronze	nickel ²⁾	brass	nickel		●
S	Stainless steel	–	brass/bronze	nickel ²⁾	brass	nickel		●
T	Stainless steel	–	stainless steel	–	brass	nickel		○
U	Stainless steel	–	stainless steel	–	stainless steel	–		○
L	Aluminium alloy	anodized	brass/bronze	nickel ²⁾	brass	nickel	¹⁾	○
X	Aluminium alloy	nickel anthracite	brass/bronze	nickel ²⁾	brass	nickel		○
G	PEEK (natural)	–	brass/bronze	nickel ²⁾	brass	nickel	Only for FGG and ENG (B series)	●
P	PSU	–	brass/bronze	nickel ²⁾	brass	nickel	Only for FGY and ENY (B series) ¹⁾	●
R	PPSU	–	brass/bronze	nickel ²⁾	brass	nickel	Only for FGY and ENY (B series) ¹⁾	●
H	PPS/brass	–/nickel	brass/bronze	nickel ²⁾	brass	nickel	Only for elbow sockets (B series)	●
P	PA.6	–	brass/bronze	nickel ²⁾	brass	nickel	Only for CRF and CRG bridge plug ¹⁾	●

Note: detailed characteristics of these materials and treatments are presented on page 171.

¹⁾ see «variant» for the colour.

²⁾ in the K series, the latch sleeve is chrome-plated.

- First choice alternative
- Special order alternative



Insulators (B and K series)

Ref.	Material	Contact type	Remarks	Note
Y	PEEK	Crimp	extended design, with contacts that recess into insulator	●
L	PEEK	Solder or print		●

Note: detailed characteristics of these materials are presented on page 175.



Contacts (B and K series)

Soldering characteristics

- no need to order specific tools, a simple soldering iron is sufficient
- ideal for very small and fragile conductors
- contacts with solder cups to allow the solder to flow

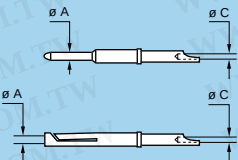
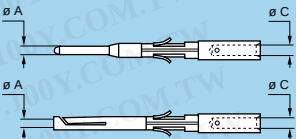
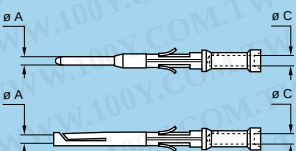
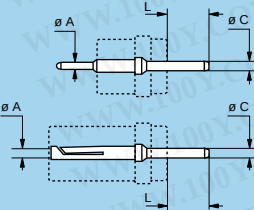
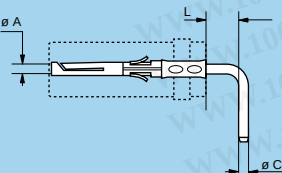
Note: see page 176 for more information.

Crimping characteristics

- practical, quick contact fixing outside the insulator
- possible use at high temperature
- need to order specific tools
- no risk of heating the insulator during the conductor-contact fixing
- high tensile strength
- totally lead-free solution



Contacts reference for plugs, free or fixed sockets

Contact type	Reference		Contact			Conductor						F _r ¹⁾ (N)	Notes	
	Male	Female				Solid		Stranded						
			AWG max.	Section max. (mm ²)	AWG		Section (mm ²)							
			ø A (mm)	ø C (mm)	Form per fig.			min.	max.	min.	max.			
Solder 	A	L	0.5 ²⁾	0.40 ²⁾	—	28	0.09	—	30	—	0.05	—	●	
			0.5	0.45	—	28	0.09	—	28	—	0.09	—		
			0.7	0.80	—	22	0.34	—	22 ³⁾	—	0.34	—		
			0.9	0.80	—	22	0.34	—	22 ³⁾	—	0.34	—		
			1.3	1.00	—	20	0.50	—	20 ³⁾	—	0.50	—		
			1.6	1.40	—	16	1.00	—	18	—	1.00	—		
			2.0	1.80	—	14	1.50	—	16	—	1.50	—		
			3.0	2.70	—	10	4.00	—	12	—	4.00	—		
			4.0	3.70	—	10	6.00	—	10	—	6.00	—		
			6.0	5.20	—	—	—	—	8	—	10.00	—		
Crimp fig. 1  fig. 2 	C	M	0.5 ⁴⁾	0.45	1	—	—	32	28	0.035	0.09	12	●	
	C	M	0.7	0.80	1	—	—	26	22 ³⁾	0.140	0.34	22	●	
	B	P		0.45	2	—	—	32	28	0.035	0.09		○	
	C	M	0.9	1.10	1	—	—	24	20	0.250	0.50	30	●	
	B	P		0.80	2	—	—	26	22 ³⁾	0.140	0.34		○	
	G	U		0.45	2	—	—	32	28	0.035	0.09		○	
	C	M	1.3	1.40	1	—	—	20	18	0.500	1.00	40	●	
	B	P		1.10	2	—	—	24	20	0.250	0.50		○	
	G	U		0.80	2	—	—	26	22 ³⁾	0.140	0.34		○	
	C	M	1.6	1.90	1	—	—	18	14 ³⁾	1.000	1.50	50	●	
	B	P		1.40	2	—	—	22	18	0.340	1.00		○	
	C	M	2.0	2.40	1	—	—	16	12 ³⁾	1.500	2.50	65	●	
	B	P		1.90	2	—	—	18	14	1.000	1.50		○	
	C	M	3.0	2.90	1	—	—	14	10 ³⁾	2.500	4.00	75	●	
	C	M	4.0	4.00	1	—	—	12	10	4.000	6.00	90	●	
	Print 	D	N	L dimensions and C are detailed in the section on PCB drilling pattern. See page 156.										●
	Print (elbow) 	V	V	L dimensions and C are detailed in the section on PCB drilling pattern. See page 157.										●

Note: 1) contact retention force in the insulator (according to IEC 60512-8 test 15 a).

2) for 00 multipole series.

3) for a given AWG, the diameter of some stranded conductor designs is larger than the solder cup diameter.
Make sure that the maximum conductor diameter is smaller than ø C.

4) available only for 00 multipole series and connectors fitted with male contacts of the 0B and 1B series.

● First choice alternative

○ Special order alternative

Contacts reference for couplers R●, S● and TGL

Ref.	Contact type	Remarks
A	Male - Female	contact configuration is explained on page 21, 28, 42
L	Female - Male	contact configuration is explained on page 21, 28, 42
M	Female - Female	contact configuration is explained on page 21



Collets (B and K series)

D and M type collets for B series

D type



M type



	Reference		Collet ø		Cable ø		Notes
	Type	Code	ø A	ø B	max.	min.	
00	D	22	2.2	—	2.2	1.4	NEW
	D	27	2.7	—	2.7	> 2.2	NEW
	D	35	3.5	2.8	3.5	> 2.7	NEW
0B	D	21	2.1	—	2.2	1.4	NEW
	D	31	3.1	—	3.2	> 2.2	NEW
	D	42	4.2	—	4.2	> 3.2	NEW
	D	52	5.2	4.7	5.2	> 4.2	NEW
	D	56	5.6	4.7	5.6	> 5.2	NEW ¹⁾
1B	M	27	2.7	—	2.7	> 2.2	NEW
	M	31	3.1	—	3.1	> 2.7	NEW
	D	42	4.2	—	4.2	2.5	NEW
	D	52	5.2	—	5.2	> 4.2	NEW
	D	62	6.2	—	6.2	> 5.2	NEW
	D	72	7.2	6.7	7.2	> 6.2	NEW
2B	D	76	7.6	6.7	7.5	7.1	1)
	M	21	2.1	—	2.2	1.4	NEW
	M	31	3.1	—	3.2	> 2.2	NEW
	D	42	4.2	—	4.2	> 3.2	NEW
	D	52	5.2	—	5.2	> 4.2	NEW
	D	62	6.2	—	6.2	> 5.2	NEW
	D	72	7.2	—	7.2	> 6.2	NEW
	D	82	8.2	—	8.2	> 7.2	NEW
	D	92	9.2	8.6	9.2	> 8.2	NEW
	D	99	9.9	8.6	9.7	9.1	1)

	Reference		Collet ø		Cable ø		Notes
	Type	Code	ø A	ø B	max.	min.	
3B	M	52	5.2	—	5.0	4.1	
	D	62	6.2	—	6.2	4.9	NEW
	D	72	7.2	—	7.7	> 6.2	NEW
	D	82	8.2	—	8.0	7.1	
	D	92	9.2	—	9.2	> 7.7	NEW
	D	10	10.2	—	10.7	> 9.2	NEW
	D	11	11.2	10.2	11.0	10.1	
4B	D	12	11.9	10.2	11.7	11.1	1)
	M	62	6.2	—	6.0	5.1	
	M	72	7.2	—	7.0	6.1	
	M	82	8.2	—	8.0	7.1	
	M	92	9.2	8.6	9.0	8.1	
	D	10	10.8	—	10.5	9.1	
	D	12	12.3	—	12.0	10.6	
	D	13	13.8	12.5	13.5	12.1	
	D	15	15.3	12.5	15.0	13.6	
	D	16	16.3	12.5	16.0	15.1	1)
5B	D	11	11.8	—	11.5	9.6	
	D	13	13.8	—	13.5	11.6	
	D	15	15.8	—	15.5	13.6	
	D	17	17.8	—	17.5	15.6	1)
	D	19	19.8	—	19.5	17.6	1)
	D	21	21.8	—	21.5	19.6	1)
	D	23	23.8	21.8	23.5	21.6	1)
	D	25	25.3	21.8	25.0	23.6	1)

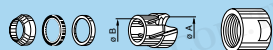
Note: all dimensions are in millimetres.

¹⁾ these collets cannot be used for connector models with nut for fitting a bend relief.



C and K type collets for K series

C type



K type

oversize
cable collet



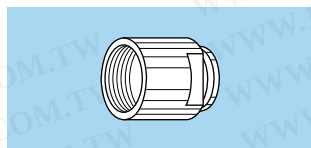
	Reference		Collet ø		Cable ø	
	Type	Code	ø A	ø B	max.	min.
0K	C	10	1.6	—	1.2	1.0
	C	15	1.6	—	1.5	1.3
	C	20	2.1	—	2.0	1.6
	C	25	3.1	—	2.5	2.1
	C	30	3.1	—	3.0	2.6
	C	35	4.2	4.2	3.5	3.1
	C	40	4.2	4.2	4.0	3.6
	C	45	5.2	5.2	4.5	4.1
	C	50	5.2	5.2	5.0	4.6
1K	C	15	1.6	—	1.5	1.3
	C	20	2.2	—	2.0	1.6
	C	25	3.2	—	2.5	2.1
	C	30	3.2	—	3.0	2.6
	C	35	4.2	—	3.5	3.1
	C	40	4.2	—	4.0	3.6
	C	45	5.2	—	4.5	4.1
	C	50	5.2	—	5.0	4.6
	C	55	6.2	6.2	5.5	5.1
	C	60	6.2	6.2	6.0	5.6
	C	65	7.2	6.7	6.5	6.1
	K	70	7.2	—	7.0	6.6
	K	75	8.2	8.2	7.5	7.1
	K	80	8.2	8.2	8.0	7.6
	K	85	9.2	8.6	8.5	8.1
2K	C	15	2.2	—	1.5	1.3
	C	20	2.2	—	2.0	1.6
	C	25	3.2	—	2.5	2.1
	C	30	3.2	—	3.0	2.6
	C	35	4.2	—	3.5	3.1
	C	40	4.2	—	4.0	3.6
	C	45	5.2	—	4.5	4.1
	C	50	5.2	—	5.0	4.6
	C	55	6.2	—	5.5	5.1
	C	60	6.2	—	6.0	5.6
	C	65	7.2	—	6.5	6.1
	C	70	7.2	—	7.0	6.6
	C	75	8.2	8.2	7.5	7.1
	C	80	8.2	8.2	8.0	7.6
	C	85	9.2	8.6	8.5	8.1
	K	90	9.2	—	9.0	8.6
	K	95	10.2	10.2	9.5	9.1
	K	10	10.2	10.2	10.0	9.6
	K	11	11.2	10.6	10.5	10.1
3K	C	30	3.2	—	3.0	2.6
	C	35	4.2	—	3.5	3.1
	C	40	4.2	—	4.0	3.6
	C	45	5.2	—	4.5	4.1
	C	50	5.2	—	5.0	4.6
	C	55	6.2	—	5.5	5.1
	C	60	6.2	—	6.0	5.6
	C	65	7.2	—	6.5	6.1

	Reference		Collet ø		Cable ø	
	Type	Code	ø A	ø B	max.	min.
3K	C	70	7.2	—	7.0	6.6
	C	75	8.2	—	7.5	7.1
	C	80	8.2	—	8.0	7.6
	C	85	9.2	—	8.5	8.1
	C	90	9.2	—	9.0	8.6
	C	95	10.2	10.2	9.5	9.1
	C	10	10.2	10.2	10.0	9.6
	C	11	11.2	10.6	10.5	10.1
	K	11	12.3	—	12.0	10.6
	K	12	13.8	13.8	12.8	12.1
	K	13	13.8	13.8	13.5	12.9
	K	14	15.3	15.3	14.0	13.6
	K	15	15.3	15.3	15.0	14.1
	C	50	6.3	—	5.0	4.6
4K	C	55	6.3	—	5.5	5.1
	C	60	6.3	—	6.0	5.6
	C	65	7.3	—	6.5	6.1
	C	70	7.3	—	7.0	6.6
	C	75	8.3	—	7.5	7.1
	C	80	8.3	—	8.0	7.6
	C	85	9.3	—	8.5	8.1
	C	90	9.3	—	9.0	8.6
	C	95	10.8	—	9.5	9.1
	C	10	10.8	—	10.5	9.6
	C	11	12.3	—	12.0	10.6
	C	12	13.8	13.8	12.8	12.1
	C	13	13.8	13.8	13.5	12.9
	C	14	15.3	15.3	14.0	13.6
	C	15	15.3	15.3	15.0	14.1
	K	16	17.8	—	16.5	15.6
	K	17	17.8	—	17.5	16.6
	K	18	19.8	—	18.5	17.6
	K	19	19.8	—	19.5	18.6
	K	20	21.8	—	20.5	19.6
	K	21	21.8	—	21.5	20.6
	K	22	23.8	23.8	22.5	21.6
	K	23	23.8	23.8	23.5	22.6
5K	C	10	11.8	—	10.5	9.6
	C	11	11.8	—	11.5	10.6
	C	12	13.8	—	12.5	11.6
	C	13	13.8	—	13.5	12.6
	C	14	15.8	—	14.5	13.6
	C	15	15.8	—	15.5	14.6
	C	16	17.8	—	16.5	15.6
	C	17	17.8	—	17.5	16.6
	C	18	19.8	—	18.5	17.6
	C	19	19.8	—	19.5	18.6
	C	20	21.8	—	20.5	19.6
	C	21	21.8	—	21.5	20.6
	C	22	23.8	23.8	22.5	21.6
	C	23	23.8	23.8	23.5	22.6

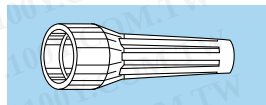
Note: all dimensions are in millimetres.

Variant (B and K series)

Bend relief for B series models with collet

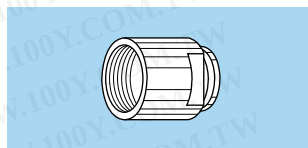


Need to be ordered

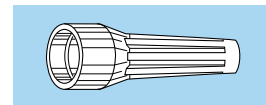


Ref.	Collet		Need to be ordered separately (see pages 141 and 142)
	Type	Code	
00	Z	D 22 to 35	GMA.00.●●●●●● GMB.00.●●●●●●
0B	Z	D 21 to 52	GMA.0B.●●●●●●
1B	Z	M 27 and 31	GMA.1B.●●●●●●
		D 42 to 72	GMA.1B.●●●●●●
2B	Z	M 21 and 31	GMA.0B.●●●●●●
		D 42	GMA.2B.●●●●●●
		D 52 to 92	GMA.2B.●●●●●●
3B	Z	M 52	GMA.1B.●●●●●●
		D 62 to 11	GMA.3B.●●●●●●
4B	Z	M 62 and 72	GMA.2B.●●●●●●
		M 82 and 92	GMA.4B.●●●●●●
		D 10 to 15	GMA.4B.●●●●●●
5B	Z	D 11 to 15	GMA.4B.●●●●●●

Bend relief for K series models with collet



Need to be ordered



Ref.	Collet		Need to be ordered separately (see pages 141 and 142)
	Type	Code	
0K	Z	C 10 to 50	GMA.0B.●●●●●●
1K	Z	C 15 to 65	GMA.1B.●●●●●●
		K 70 to 85	GMA.2B.●●●●●●
2K	Z	C 15 to 85	GMA.2B.●●●●●●
		K 90 to 10	GMA.3B.●●●●●●
3K	Z	C 30 to 10	GMA.3B.●●●●●●
		K 11 to 15	GMA.4B.●●●●●●
4K	Z	C 50 to 15	GMA.4B.●●●●●●

Note: All dimensions are in millimetres.

Colour of the bridge plug shells and connectors shell made of plastic material and aluminium alloys

Reference	Colour	Bridge plug and plastic shell			Aluminium alloys	
		PSU	PPSU	PA.6	Anodized colour	Anodized colour for bend relief collet nut
A	blue			●	●	
B	white	●		●		
G	grey	●		●		
J	yellow			●	●	
M	brown			●		
N	black			●	●	
R	red			●	●	
S	orange			●		
T	natural				●	
V	green			●	●	
L	black					●
X	natural					●
F	cream		●			

Note: other anodizing colours are available for connectors with collet nut for bend relief. Please consult us.

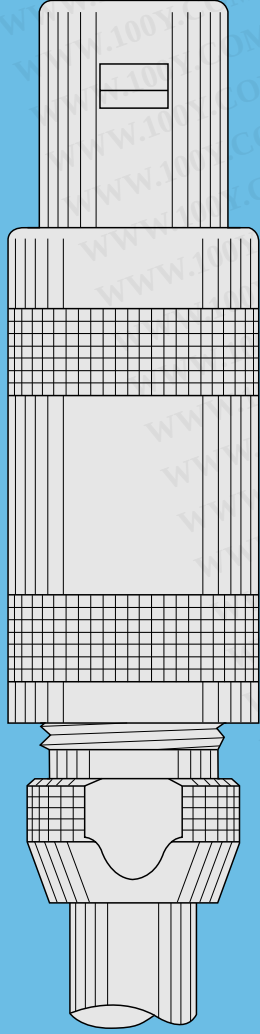
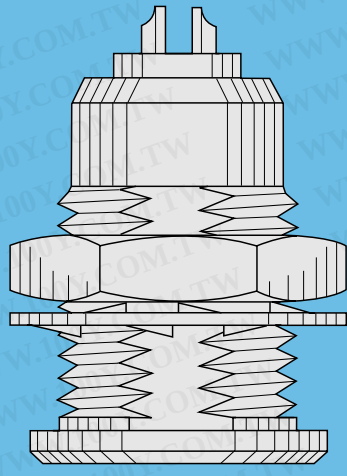
Watertight and vacuumtight socket and coupler models (B and K series)

	Model	Reference	
		Watertight	Vacuumtight
B	YH●, HG●, HN●, HH●, HC●, HE●, HM●, S●●	P	PV
K	HG●, HE●, S●●	P	PV

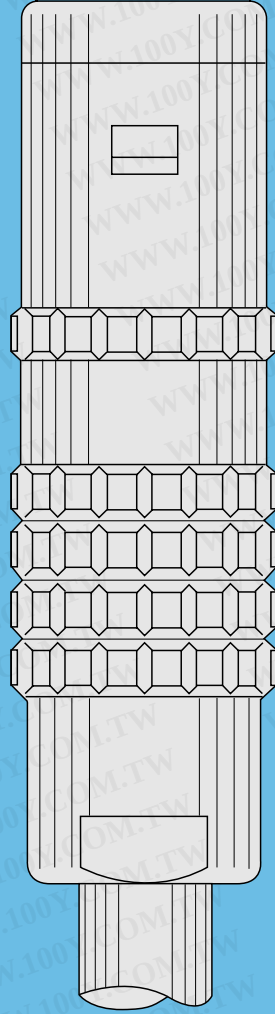
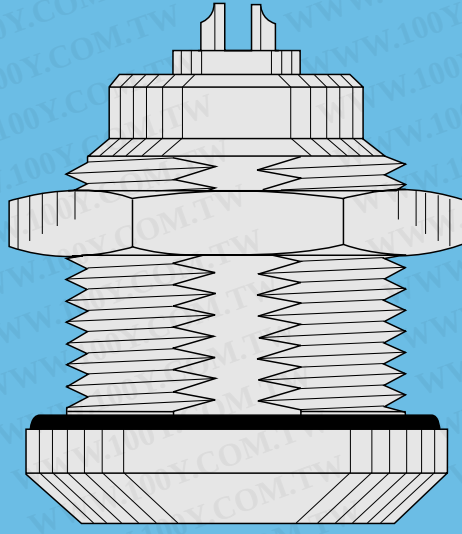
O-ring and gasket material (K series)

Standard connectors are delivered with silicone o-ring and gaskets. The vacuumtight models, identified with the letter «PV», are delivered with Viton® gaskets. Other gaskets material can be delivered upon special request.

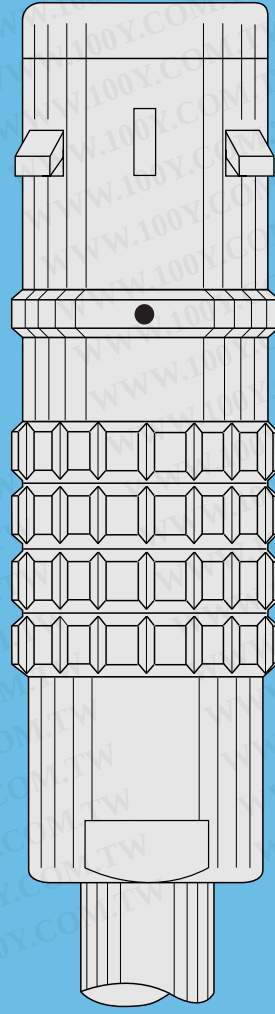
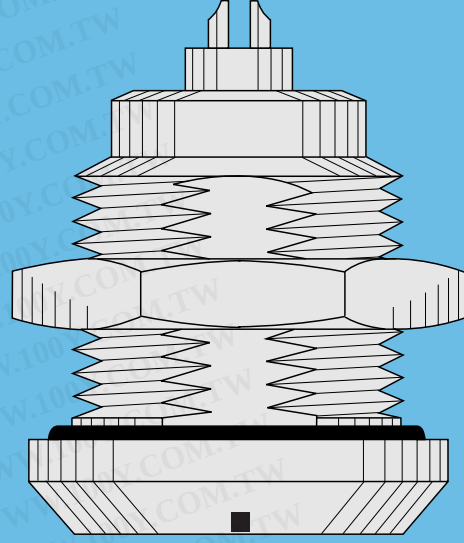
O-ring material	Reference
FPM (Viton®)	H
EPDM	E
FPM (Viton®) and collet nut for bend relief	D



S SERIES



E SERIES (watertight)



L SERIES (watertight keyed)

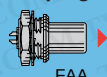
S Series

S series connectors have main features as follows:

- security of the Push-Pull self-latching system
- unipole types transmitting current up to 230 A and multipole types with up to 106 contacts
- 360° screening for full EMC shielding.
- solder or print contacts (straight or elbow)
- polarisation by stepped insert (half-moon) fitted with male and female contacts

Metal housing models (page 58)

Fixed plug



FAA

Straight plugs



FFA, FFP

Fixed sockets

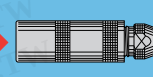


ERA



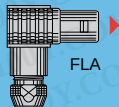
EEP

Free sockets



PCA, PCP

Elbow plugs



FLA



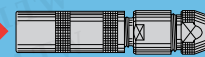
FFA



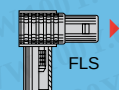
ERN



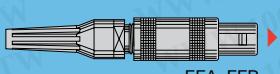
ERD



PCA



FLS



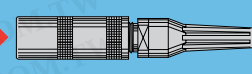
FFA, FFP



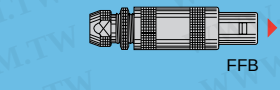
ERC



ECP



PCA, PCP



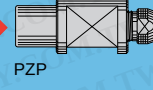
FFB



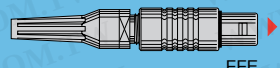
ERS



ECP



PZP



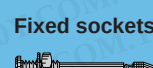
FFE



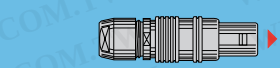
EHP



ECP



PSA, PSP



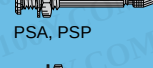
FFL



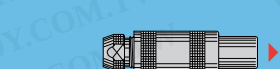
EBD



RMA



PSS



FFF



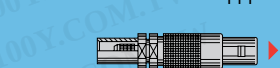
EBS



RAD



FTA



FFS



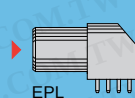
EBC



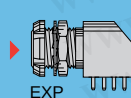
FZP

Elbow socket models (page 68)

Elbow sockets



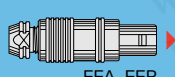
EPL



EXP

Plastic housing models (page 70)

Straight plugs

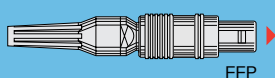


FFA, FFP

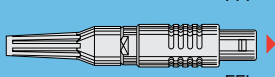
Fixed socket



ERN



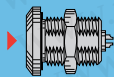
FFP



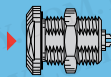
FFL

Watertight or vacuumtight models (page 72)

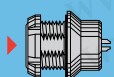
Fixed sockets



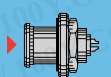
HGP



EWB

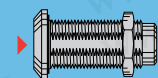


HCP



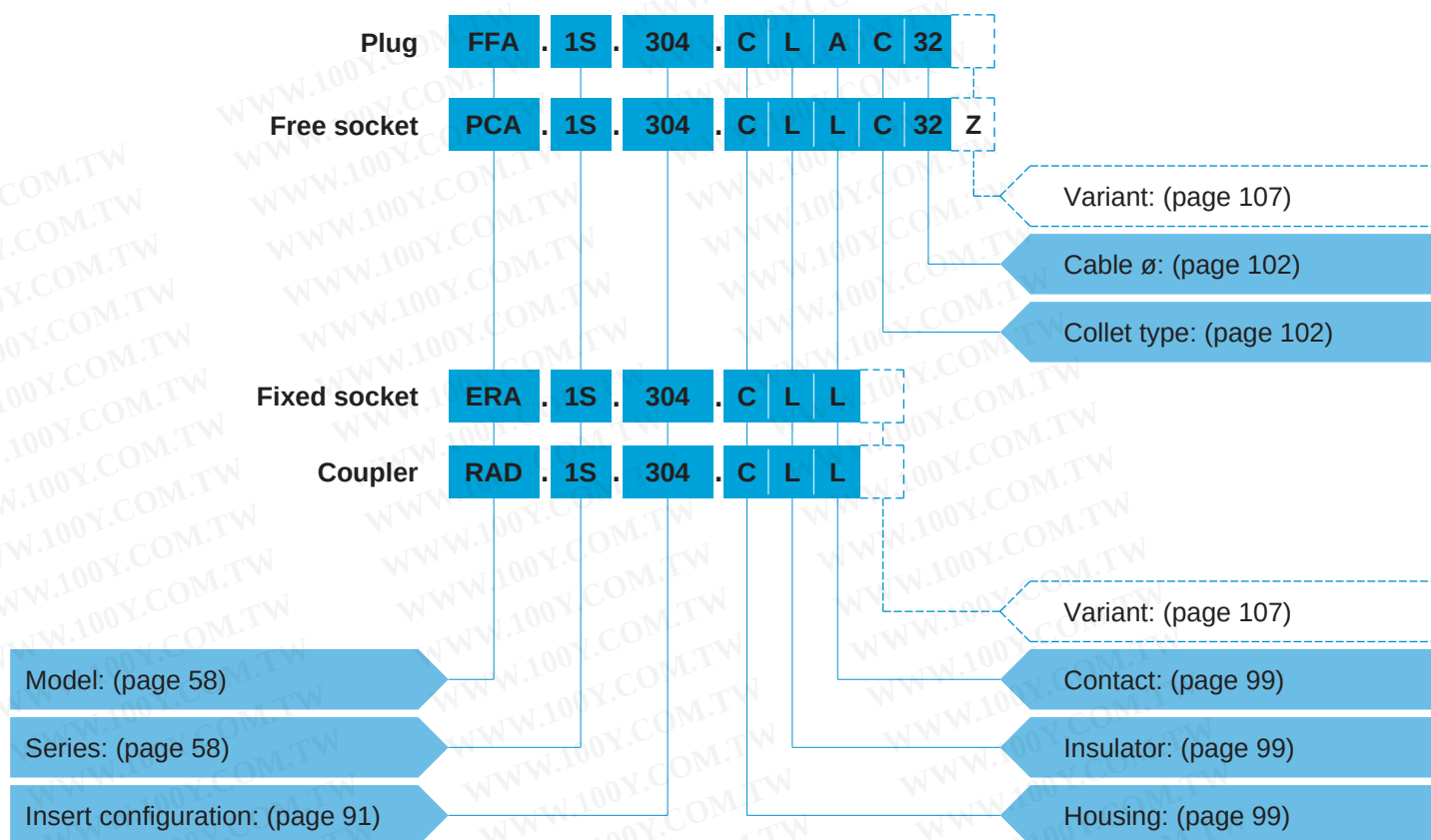
HGW

Fixed coupler



SWH

Part Numbering System



Part Number Example

Straight plug with cable collet:

FFA.1S.304.CLAC32 = straight plug with cable collet, 1S series, multipole type with 4 contacts, outer shell in chrome-plated brass, PEEK insulator, 2 male and 2 female solder contacts, C type collet for a 3.2 mm diameter cable.

Free socket:

PCA.1S.304.CLLC32Z = free socket, with cable collet, 1S series, multipole type with 4 contacts, outer shell in chrome-plated brass, PEEK insulator, 2 female and 2 male solder contacts, C type collet for a 3.2 mm diameter cable and nut for fitting a bend relief.

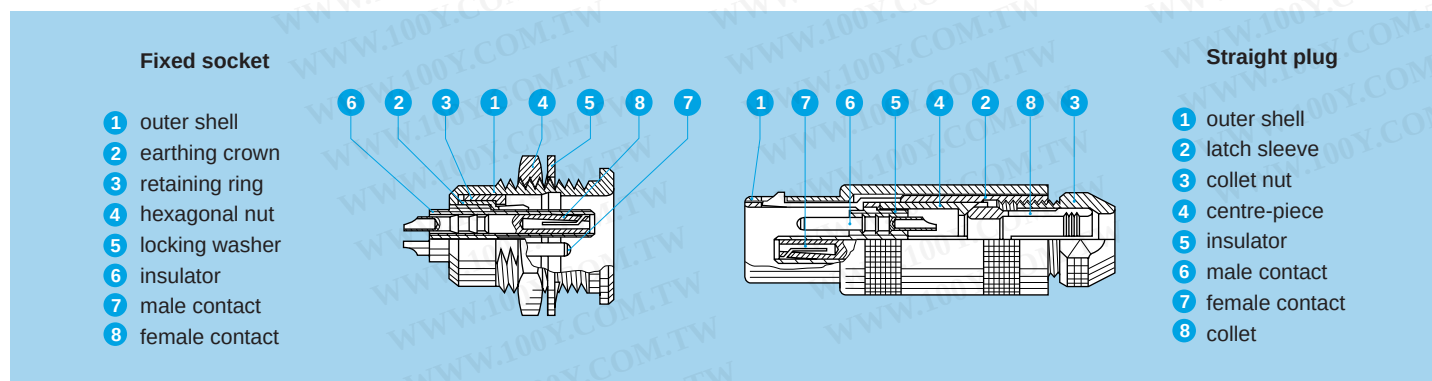
Fixed socket:

ERA.1S.304.CLL = fixed socket, nut fixing, 1S series, multipole type with 4 contacts, outer shell in chrome-plated brass, PEEK insulator, 2 female and 2 male solder contacts.

Fixed coupler:

RAD.1S.304.CLL = straight coupler, nut fixing, 1S series, multipole type with 4 contacts, outer shell in chrome-plated brass, PEEK insulator, 2 female and 2 male contacts each end.

Part Section Showing Internal Components



Metal housing models

Technical Characteristics

Mechanical and Climatical

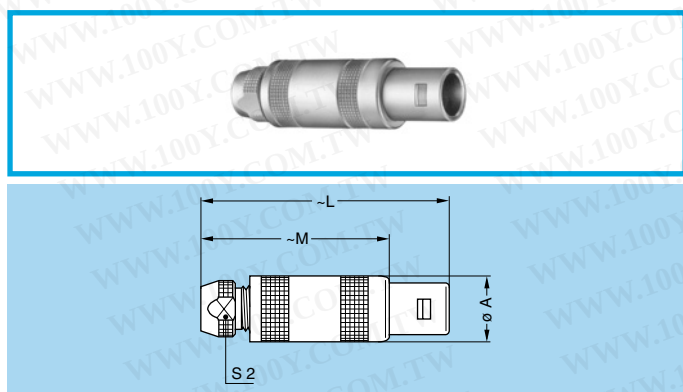
Characteristics	Value	Standard
Endurance	> 5000 cycles	IEC 60512-5 test 9a
Humidity	up to 95% at 60° C	
Temperature range	- 55° C, +250° C	
Resistance to vibrations	10-2000 Hz, 15 g	IEC 60512-4 test 6d
Shock resistance	100 g, 6 ms	IEC 60512-4 test 6c
Salt spray corrosion test	> 144h	IEC 60512-6 test 11f
Protection index (mated)	IP 50	IEC 60529
Climatical category	55/175/21	IEC 60068-1

Electrical

Characteristics	Value	Standard
Shielding efficiency	at 10 MHz	> 75 dB
	at 1 GHz	> 40 dB
		IEC 60169-1-3
		IEC 60169-1-3

Note:

The various tests have been carried out with FFA and ERA connector pairs, with chrome-plated brass shell and PEEK insulator. Detailed electrical characteristics, as well as materials and treatment are presented in the chapter Technical Characteristics on page 171.

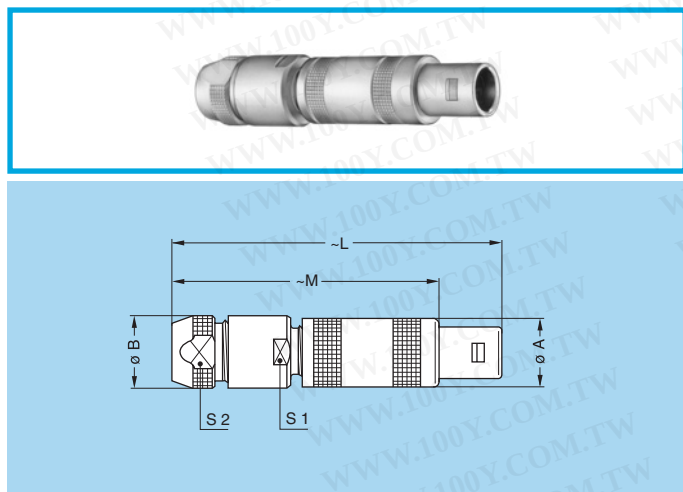


FFA Straight plug, cable collet

Reference		Dimensions (mm)			
Model	Series	A	L	M	S2
FFA	00	6.4	26.0	18.0	4.5
FFA	0S	9.0	34.5	24.5	6.5
FFA	1S	12.0	42.5	31.5	8.5
FFA	2S	14.8	52.0	40.0	11.0
FFA	3S	17.8	61.0	46.0	14.0
FFA	4S	24.8	77.0	59.0	19.0
FFA	5S	35.0	103.0	78.0	29.0
FFA	6S	46.0	106.0	81.0	38.0

M1

Cable assembly
(pages 163 to 165)



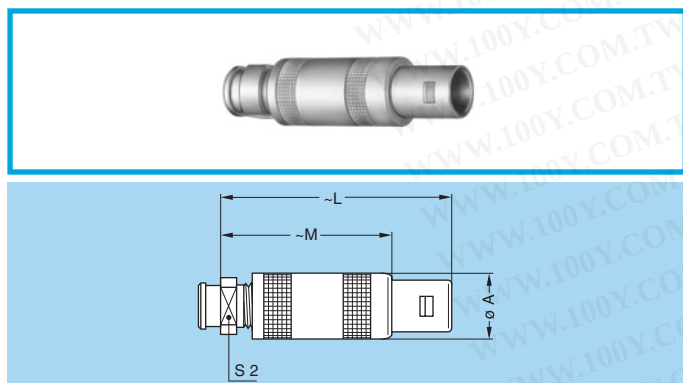
FFA Straight plug with oversize cable collet ¹⁾

Reference		Dimensions (mm)					
Model	Series	A	B	L	M	S1	S2
FFA	00	6.4	8.0	34.0	26.0	7.0	6.5
FFA	0S	9.0	10.0	45.5	35.5	9.0	8.5
FFA	1S	12.0	13.0	57.0	46.0	12.0	11.0
FFA	2S	14.8	18.0	67.0	55.0	14.0	14.0
FFA	3S	17.8	21.0	85.0	70.0	19.0	19.0
FFA	4S	24.8	31.8	107.0	89.0	28.5	29.0
FFA	5S	35.0	41.8	138.0	113.0	37.5	38.0

M2

Cable assembly (pages 164 and 166)

Note: ¹⁾ correspond to K type of collet, the fitting of oversize collets onto this model allows them to be fitted to the cables that can be accommodated by the next housing size up (see page 102).



FFA Straight plug, cable collet and nut for fitting a bend relief ¹⁾

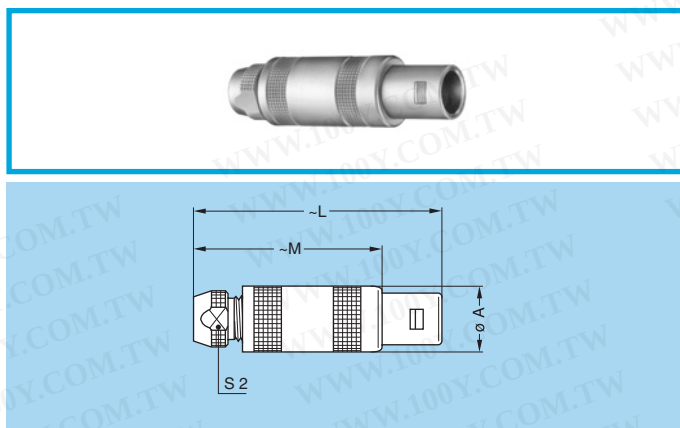
Reference		Dimensions (mm)			
Model	Series	A	L	M	S2
FFA	00	6.4	26.0	18.0	6
FFA	0S	9.0	34.5	24.5	7
FFA	1S	12.0	42.5	31.5	9
FFA	2S	14.8	52.0	40.0	12
FFA	3S	17.8	61.0	46.0	14
FFA	4S	24.8	77.0	59.0	20

M1

Cable assembly
(pages 163 and 164)

Note:

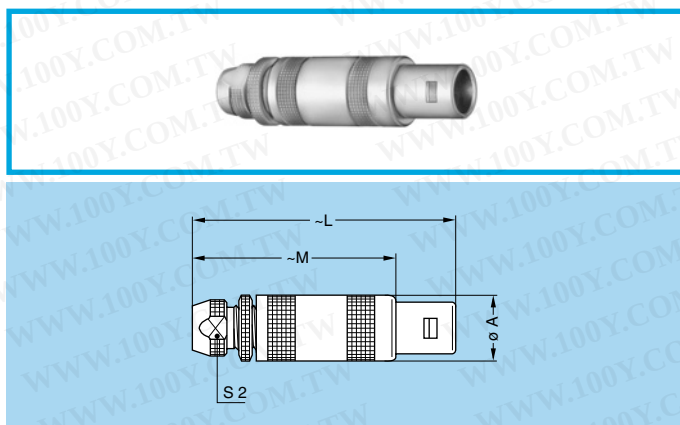
¹⁾ to order, add a «Z» at the end of the reference. The bend relief must be ordered separately (see page 141).



FFP Straight plug, cable collet and inner anti-rotating device

Reference		Dimensions (mm)			
Model	Series	A	L	M	S2
FFP	0S	9.0	34.5	24.5	6.5
FFP	1S	12.0	42.5	31.5	8.5
FFP	2S	14.8	52.0	40.0	11.0
FFP	3S	17.8	61.0	46.0	14.0
FFP	4S	24.8	77.0	59.0	19.0

M1 Cable assembly (pages 163 and 164)

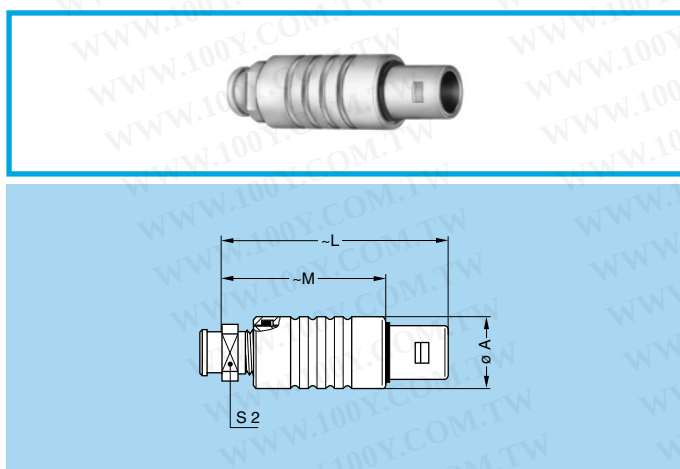


FFB Straight plug, cable collet and safety locking ring

Reference		Dimensions (mm)			
Model	Series	A	L	M	S2
FFB	0S	9.0	36.8	26.8	6.5
FFB	1S	12.0	45.0	34.0	8.5
FFB	2S	14.8	55.5	43.5	11.0
FFB	3S	17.8	65.0	50.0	14.0

M1 Cable assembly (pages 163 and 164)

Note: nut for fitting a bend relief (available only for size 1S).

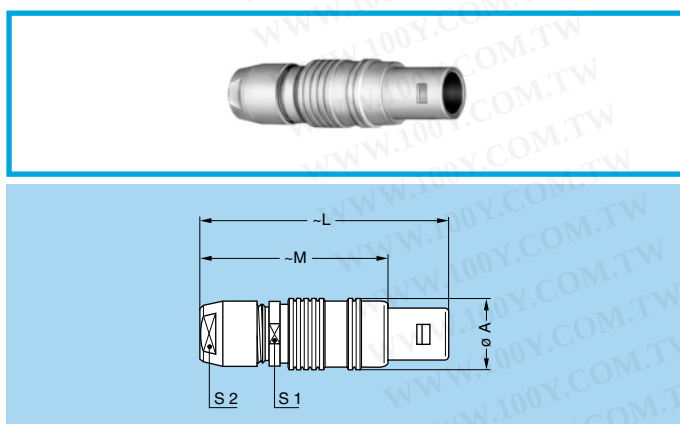


FFE Straight plug, cable collet, front seal and nut for fitting a bend relief ¹⁾ (protected to IP54 when mated)

Reference		Dimensions (mm)			
Model	Series	A	L	M	S2
FFE	00	7.4	26.0	18.0	6
FFE	0S	10.0	34.5	24.5	7
FFE	1S	13.0	42.5	31.5	9
FFE	2S	16.0	52.0	40.0	12
FFE	3S	19.0	61.0	46.0	14

M1 Cable assembly (pages 163 and 164)

Note: ¹⁾ to order, add a «Z» at the end of the reference. The bend relief must be ordered separately (see page 141).

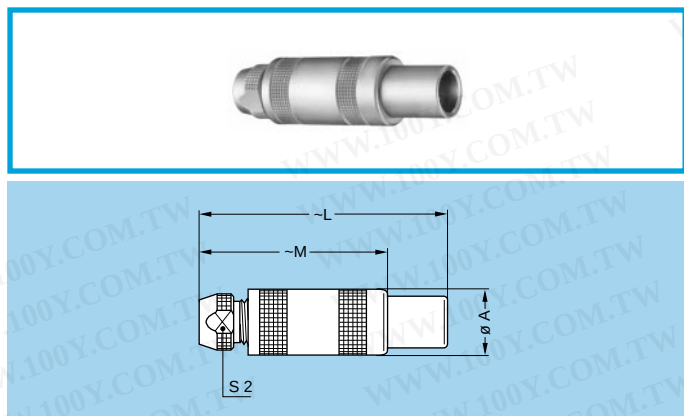


FFL Straight plug, flats on latch sleeve, cable collet and inner anti-rotating device

Reference		Dimensions (mm)				
Model	Series	A	L	M	S1	S2
FFL	2S	15.0	49.0	37.0	13	12

M4 Cable assembly (page 165)

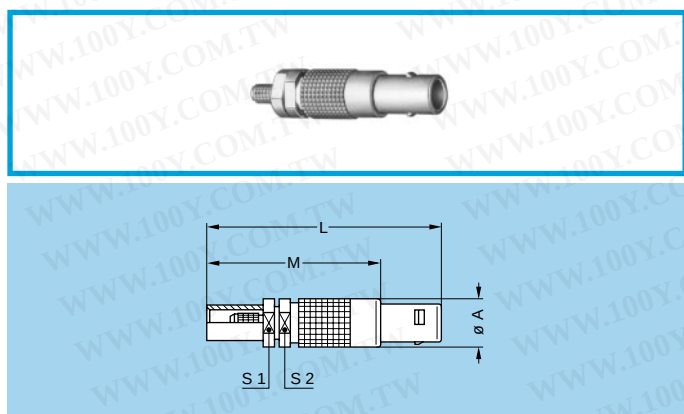
Note: this model is fitted with a «D or M» type collet system. It is also adapted for crimp contacts. Available only for multipole.



FFF Straight plug, non-latching, cable collet

Reference		Dimensions (mm)			
Model	Series	A	L	M	S2
FFF	00	6.4	26.0	18.0	4.5
FFF	0S	9.0	34.5	24.5	6.5
FFF	1S	12.0	42.5	31.5	8.5
FFF	2S	14.8	52.0	40.0	11.0

M1 Cable assembly (pages 163 and 164)

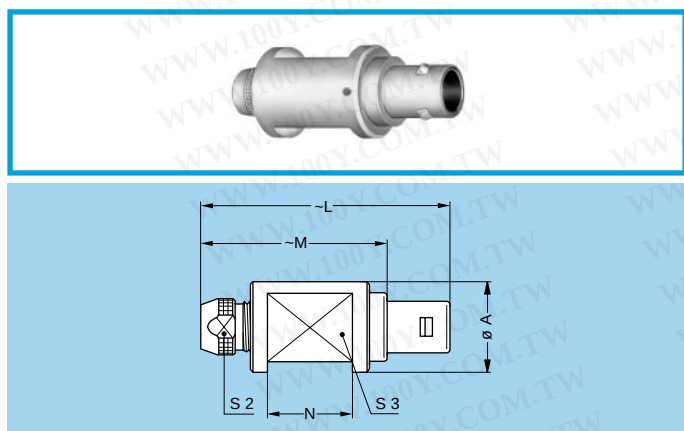


FFS Straight plug for cable crimping

Reference		Dimensions (mm)				
Model	Series	A	L	M	S1	S2
FFS	00	6.4	31	23	5.5	5.5

M5 Cable assembly (page 163)

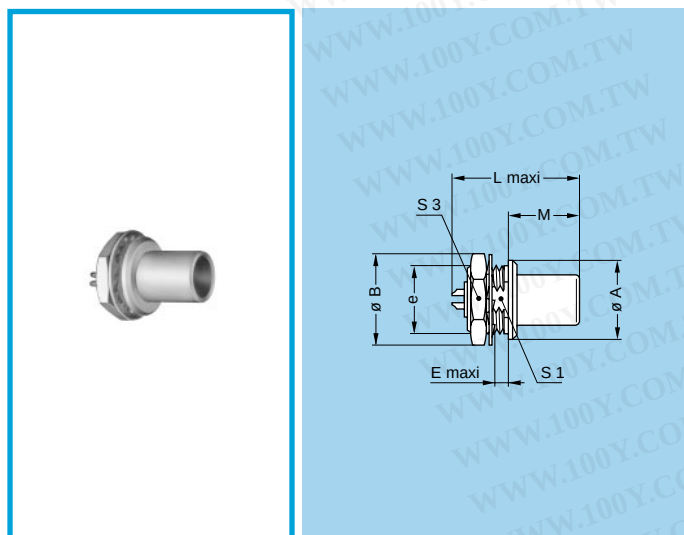
Note: Model available only with crimp backnut E31 similar to 00.250 series.



FZP Straight plug for remote handling, cable collet and inner anti-rotating device

Reference		Dimensions (mm)					
Model	Series	A	L	M	N	S2	S3
FZP	1S	16	42.5	31.5	15	8.5	12
FZP	2S	24	52.0	40.0	21	11.0	18
FZP	3S	24	61.0	46.0	24	14.0	18
FZP	4S	35	77.0	59.0	30	19.0	28
FZP	5S	43	103.0	78.0	44	29.0	35
FZP	6S	60	106.0	81.0	44	38.0	50

M1 Cable assembly (pages 163 to 165)



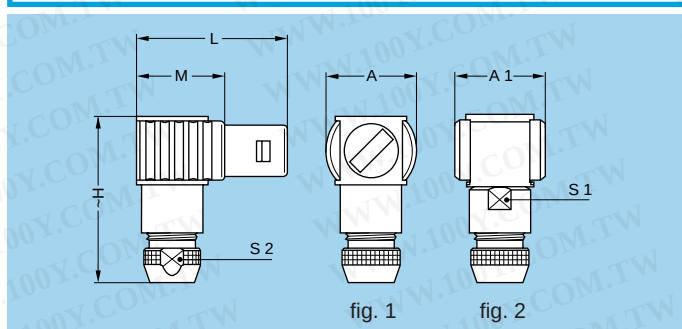
FAA Fixed plug non-latching, nut fixing

Reference		Dimensions (mm)								
Model	Series	A	B	e	E	L	L ¹⁾	M	S1	S3
FAA	00	8	10.2	M7x0.5	2.0	—	15.5	9.0	6.3	9
FAA	0S	10	12.4	M9x0.6	2.0	18.5	18.0	11.2	8.2	11
FAA	1S	14	15.8	M12x1.0	2.5	22.5	21.7	12.5	10.5	14
FAA	2S	18	19.2	M15x1.0	4.0	25.0	25.3	13.8	13.5	17
FAA	3S	22	25.0	M18x1.0	4.0	31.0	29.0	17.0	16.5	22
FAA	4S	28	34.0	M25x1.0	2.5	35.5	39.0	20.5	23.5	30
FAA	5S	40	40.0	M35x1.0	2.5	45.0	—	28.0	33.5	—
FAA	6S	54	54.0	M48x1.5	2.5	45.0	—	28.0	—	—

P1 Panel cut-out (page 152)

P2 Panel cut-out 6S series (page 152)

Note: ¹⁾ unipole model



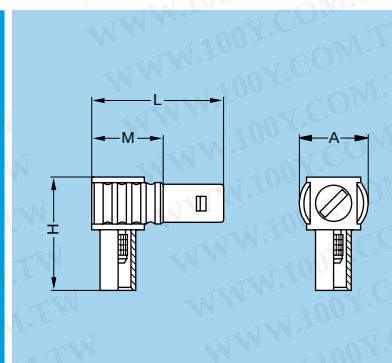
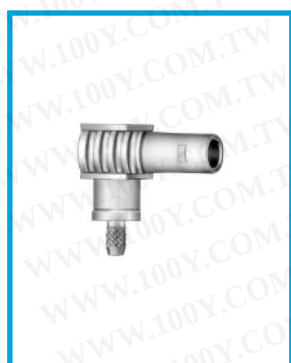
FLA Elbow (90°) plug, cable collet

Reference		Dimensions (mm)						
Model	Series	A	A1	H	L	M	S1	S2
FLA	00	9	–	16.0	17.5	9.5	–	4.5
FLA	0S	13	13	24.5	23.0	13.0	8	6.5
FLA	1S	16	16	28.5	26.5	15.5	10	8.5
FLA	2S	20	20	37.0	31.0	19.0	13	11.0
FLA	3S	21	21	44.0	38.5	23.5	15	14.0
FLA	4S	28	28	56.0	49.0	31.0	20	19.0
FLA	5S	–	37	76.5	65.0	40.0	30	29.0
FLA	6S	–	48	94.0	81.0	56.0	40	38.0

M3 Cable assembly (pages 163 to 165)

Note:
fig. 1 is used for the unipole type, fig. 2 is used for the multipole type.

- Maximum operating temperature: 120°C



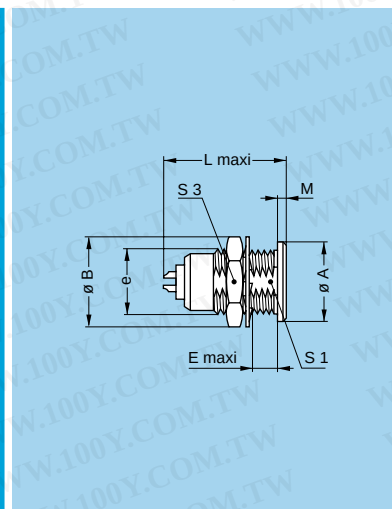
FLS Elbow (90°) plug for cable crimping

Reference		Dimensions (mm)			
Model	Series	A	H	L	M
FLS	00	9	16	17.5	9.5

M6 Cable assembly (page 163)

Note: Model available only with crimp backnut E31 similar to 00.250 series.

- Maximum operating temperature: 120°C



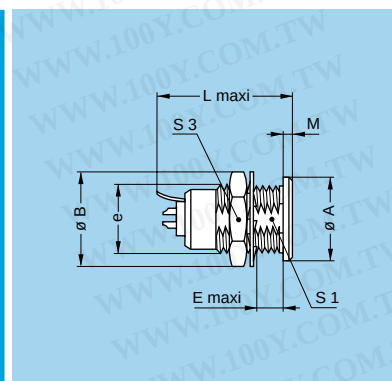
ERA Fixed socket, nut fixing

Reference		Dimensions (mm)								
Model	Series	A	B	e	E	L	L ¹⁾	M	S1	S3
ERA	00	8	10.2	M7x0.5	5.5	–	14.5	1.0	6.3	9
ERA	0S	10	12.4	M9x0.6	7.0	17.5	18.0	1.2	8.2	11
ERA	1S	14	15.8	M12x1.0	7.5	20.2	20.5	1.5	10.5	14
ERA	2S	18	19.2	M15x1.0	8.5	24.5	23.5	1.8	13.5	17
ERA	3S	22	25.0	M18x1.0	11.5	29.0	27.5	2.0	16.5	22
ERA	4S	28	34.0	M25x1.0	12.0	34.0	33.5	2.5	23.5	30
ERA	5S	40	40.0	M35x1.0	15.5	45.0	78.5	3.0	33.5	–
ERA	6S	54	54.0	M48x1.5	16.0	45.0	–	3.5	45.5	–

P1 Panel cut-out (page 152)

Note: ¹⁾ unipole model

Note: the 5S series is delivered with a tapered washer and a round nut. The 6S series is delivered without a locking washer and with a round nut.

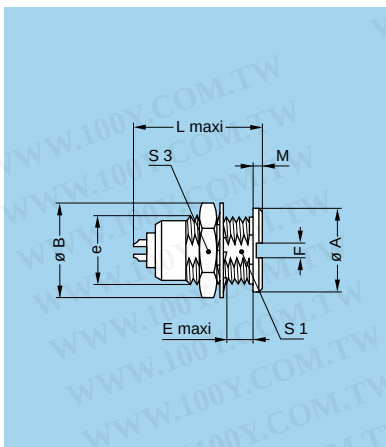


ERN Fixed socket, nut fixing, with earthing tag

Reference		Dimensions (mm)								
Model	Series	A	B	e	E	L	L ¹⁾	M	S1	S3
ERN	0S	10	12.4	M9x0.6	7.0	19.3	19.3	1.2	8.2	11
ERN	1S	14	15.8	M12x1.0	7.5	22.4	22.4	1.5	10.5	14
ERN	2S	18	19.2	M15x1.0	8.5	26.3	26.3	1.8	13.5	17
ERN	3S	22	25.0	M18x1.0	11.5	29.8	29.8	2.0	16.5	22

P1 Panel cut-out (page 152)

Note: ¹⁾ unipole model

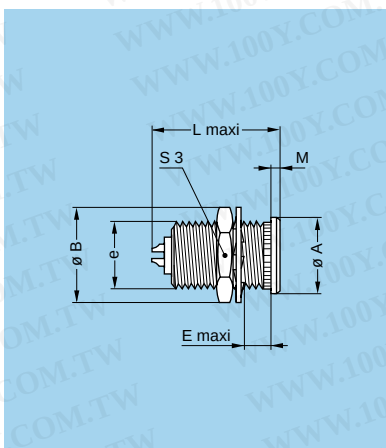


ERC Fixed socket, nut fixing with slot in the flange

Reference		Dimensions (mm)									
Model	Series	A	B	e	E	F	L	L ¹⁾	M	S1	S3
ERC	00	8	10.2	M7x0.5	5.5	1.6	–	14.5	1.0	6.3	9
ERC	0S	10	12.4	M9x0.6	7.0	2.0	17.5	18.0	1.2	8.2	11
ERC	1S	14	15.8	M12x1.0	7.5	2.5	20.2	20.5	1.5	10.5	14

P1 Panel cut-out (page 152)

Note: ¹⁾ unipole model

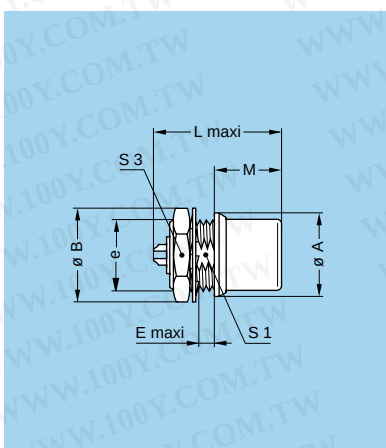


ERS Fixed socket, nut fixing, long threaded shell, without flats

Reference		Dimensions (mm)							
Model	Series	A	B	e	E	L	L ¹⁾	M	S3
ERS	0S	10	12.4	M9x0.6	10.5	17.5	18.0	1.2	11

P2 Panel cut-out (page 152)

Note: ¹⁾ unipole model



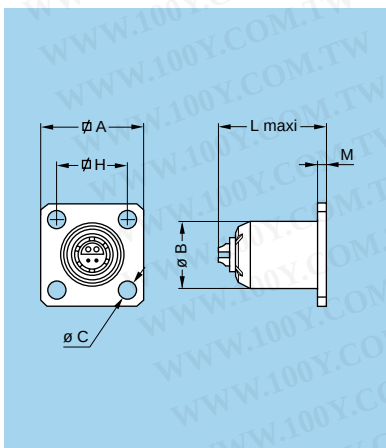
EHP Fixed socket, nut fixing, protruding shell

Reference		Dimensions (mm)								
Model	Series	A	B	e	E	L	L ¹⁾	M	S1	S3
EHP	0S	10	12.4	M9x0.6	2.0	20.5	18.0	12.5	8.2	11
EHP	1S	14	15.8	M12x1.0	3.5	20.2	20.5	12.0	–	14
EHP	3S	22	25.0	M18x1.0	4.0	29.0	29.0	18.7	–	22

P1 Panel cut-out 0S series (page 152)

P2 Panel cut-out (page 152)

Note: ¹⁾ unipole model

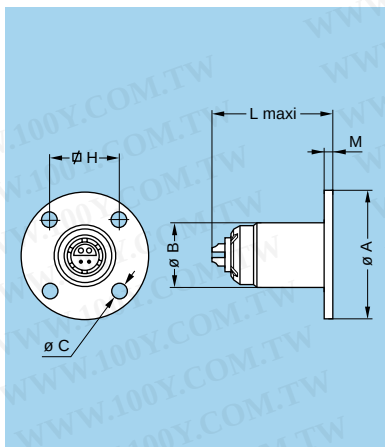


EBD Fixed socket with square flange and screw fixing

Reference		Dimensions (mm)						
Model	Series	A	B	C	H	L	L ¹⁾	M
EBD	2S	22	15	3.2	15.5	24.5	26	2

P6 Panel cut-out (page 152)

Note: ¹⁾ unipole model

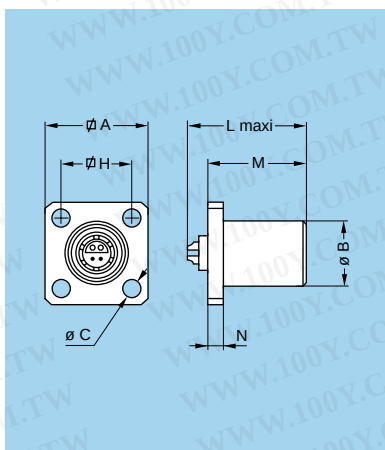


EBS Fixed socket with round flange and screw fixing

Reference		Dimensions (mm)						
Model	Series	A	B	C	H	L	L ¹⁾	M
EBS	1S	22	11	2.5	12.4	20.2	20.5	1.5

P7 Panel cut-out (page 152)

Note: ¹⁾ unipole model

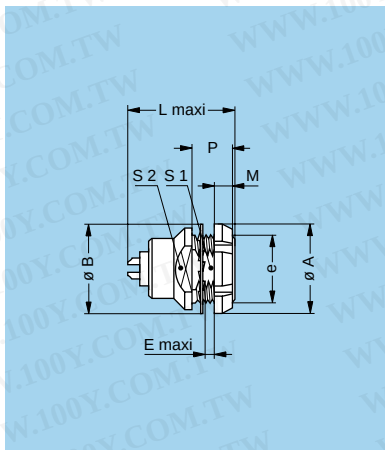


EBC Fixed socket with square flange, protruding shell and screw fixing

Reference		Dimensions (mm)							
Model	Series	A	B	C	H	L	L ¹⁾	M	N
EBC	1S	18	11.5	3.2	12.7	20.2	20.5	16.5	2.8
EBC	2S	22	15.0	3.2	15.5	24.5	23.5	18.5	4.4
EBC	3S	25	18.0	3.2	18.0	29.0	27.5	23.5	3.0
EBC	5S	45	40.0	4.3	36.8	45.0	78.5	15.0	4.0

P6 Panel cut-out (page 152)

Note: ¹⁾ unipole model

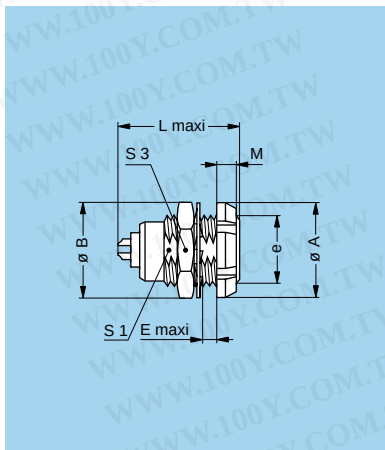


EEP Fixed socket, nut fixing (back panel mounting)

Reference		Dimensions (mm)									
Model	Series	A	B	e	E	L	L ¹⁾	M	P	S1	S2
EEP	2S	20	19.5	M15x1	3.5	24.5	23.5	3.5	9	13.5	15

P1 Panel cut-out (page 152)

Note: ¹⁾ unipole model

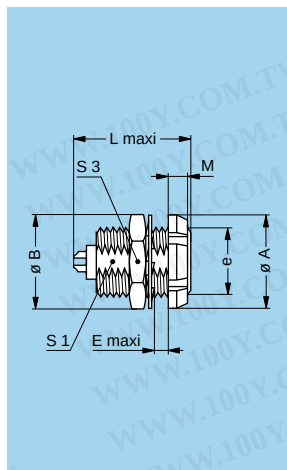


ERD Fixed socket with two nuts (back panel mounting)

Reference		Dimensions (mm)									
Model	Series	A	B	e	E	L	L ¹⁾	M	S1	S3	
ERD	0S	12	12.4	M9x0.6	5.5	17.5	18.0	2.5	8.2	11	
ERD	1S	16	15.8	M12x1.0	6.0	20.2	20.5	3.5	10.5	14	
ERD	2S	20	19.2	M15x1.0	6.5	24.5	23.5	3.5	13.5	17	
ERD	3S	24	25.0	M18x1.0	9.0	29.0	27.5	4.5	16.5	22	
ERD	4S	30	34.0	M25x1.0	10.0	34.0	33.5	4.5	23.5	30	

P1 Panel cut-out (page 152)

Note: ¹⁾ unipole model.
The 3S and 4S series are delivered with a conical nut.

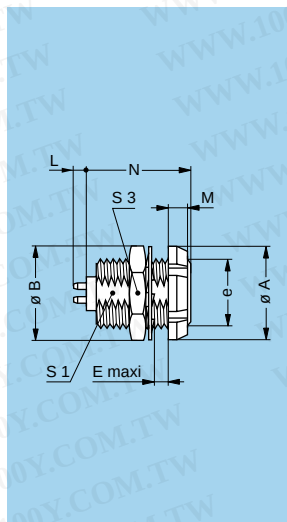


ECP Fixed socket with two nuts, long threaded shell (back panel mounting)

Reference		Dimensions (mm)								
Model	Series	A	B	e	E	L	L ¹⁾	M	S1	S3
ECP	0S	12	12.4	M9x0.6	8.5	17.5	18.5	2.5	8.2	11
ECP	1S	16	15.8	M12x1.0	10.0	20.2	21.5	3.5	10.5	14
ECP	2S	20	19.2	M15x1.0	11.0	24.5	26.0	3.5	13.5	17
ECP	3S	24	25.0	M18x1.0	14.0	29.0	30.0	4.5	16.5	22

P1 Panel cut-out (page 152)

Note: ¹⁾ unipole model.
The 3S series is delivered with a conical nut.



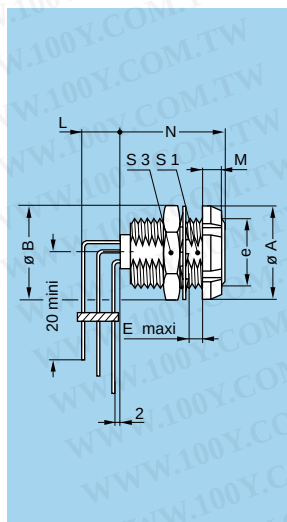
ECP Fixed socket with two nuts, long threaded shell, with straight contact for printed circuit (back panel mounting)

Reference		Dimensions (mm)							
Model	Series	A	B	e	E	M	N	S1	S3
ECP	0S	12	12.4	M9x0.6	8.5	2.5	15.0	8.2	11
ECP	1S	16	15.8	M12x1.0	10.0	3.5	17.5	10.5	14
ECP	2S	20	19.2	M15x1.0	11.0	3.5	20.0	13.5	17
ECP	3S	24	25.0	M18x1.0	14.0	4.5	24.0	16.5	22

P1 Panel cut-out (page 152)

P21 PCB drilling pattern (page 159)

Note: this contact type is available for all E● socket models.
See page 159 for table of available types.
Length «L» depends on the number of contacts, see table on page 159.
The 3S series is delivered with a conical nut.



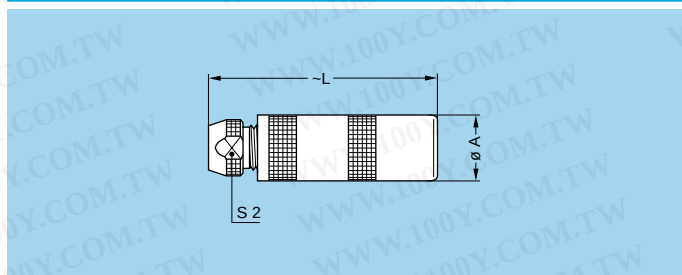
ECP Fixed socket with two nuts, long threaded shell, with elbow (90°) contacts for printed circuit (back panel mounting)

Reference		Dimensions (mm)							
Model	Series	A	B	e	E	M	N	S1	S3
ECP	0S	12	12.4	M9x0.6	8.5	2.5	15.0	8.2	11
ECP	1S	16	15.8	M12x1.0	10.0	3.5	17.5	10.5	14
ECP	2S	20	19.2	M15x1.0	11.0	3.5	20.0	13.5	17
ECP	3S	24	25.0	M18x1.0	14.0	4.5	24.0	16.5	22

P1 Panel cut-out (page 152)

P24 PCB drilling pattern (page 160)

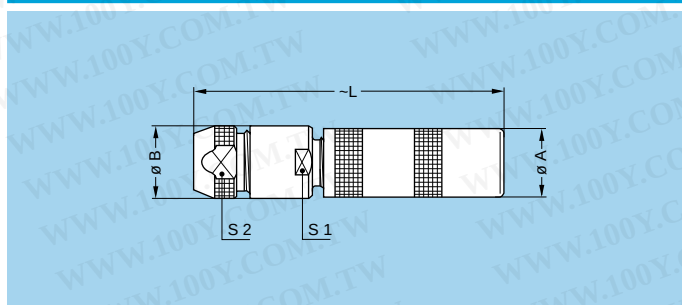
Note: this contact type is available for all back panel mounting socket types.
See page 160 for available types.
Length «L» depends on the number of contacts, see PCB drilling pattern on page 160.
The 3S series is delivered with a conical nut.



PCA Free socket, cable collet

Reference		Dimensions (mm)		
Model	Series	A	L	S2
PCA	00	6.5	25.0	4.5
PCA	0S	8.9	33.5	6.5
PCA	1S	11.9	40.5	8.5
PCA	2S	14.8	50.0	11.0
PCA	3S	17.8	59.0	14.0
PCA	4S	24.8	75.0	19.0
PCA	5S	34.7	99.0	29.0
PCA	6S	46.0	102.0	38.0

M1 Cable assembly (pages 163 to 165)

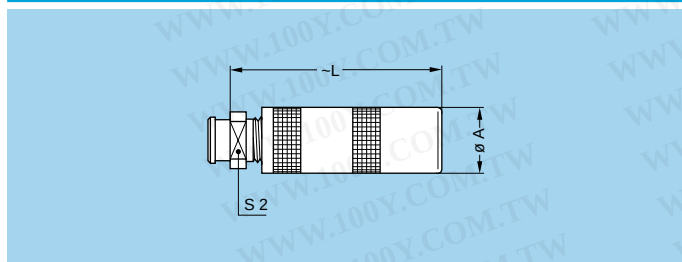


PCA Free socket with oversize cable collet ¹⁾

Reference		Dimensions (mm)				
Model	Series	A	B	L	S1	S2
PCA	00	6.5	8.0	33.0	7.0	6.5
PCA	0S	8.9	10.0	44.5	9.0	8.5
PCA	1S	11.9	13.0	55.0	12.0	11.0
PCA	2S	14.8	18.0	65.0	14.0	14.0
PCA	3S	17.8	21.0	83.0	19.0	19.0
PCA	4S	24.8	31.8	105.0	28.5	29.0

M2 Cable assembly (pages 164 and 166)

Note: ¹⁾ correspond to K type of collet, the fitting of oversize collets onto this model allows them to be fitted to the cables that can be accommodated by the next housing size up (see page 102).

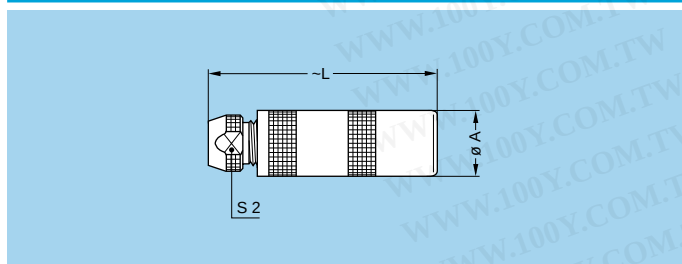


PCA Free socket, cable collet and nut for fitting a bend relief ¹⁾

Reference		Dimensions (mm)		
Model	Series	A	L	S2
PCA	00	6.5	25.0	6
PCA	0S	8.9	33.5	7
PCA	1S	11.9	40.5	9
PCA	2S	14.8	50.0	12
PCA	3S	17.8	59.0	14
PCA	4S	24.8	75.0	20

M1
Cable assembly
(pages 163 and 164)

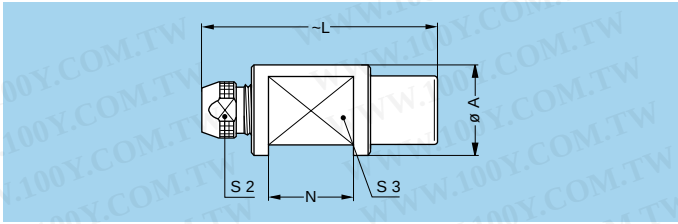
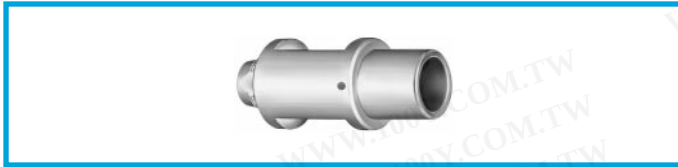
Note: ¹⁾ to order, add a «Z» at the end of the reference. The bend relief must be ordered separately (see page 141).



PCP Free socket, cable collet and inner anti-rotating device

Reference		Dimensions (mm)		
Model	Series	A	L	S2
PCP	0S	8.9	33.5	6.5
PCP	1S	11.9	40.5	8.5
PCP	2S	14.8	50.0	11.0
PCP	3S	17.8	59.0	14.0
PCP	4S	24.8	75.0	19.0

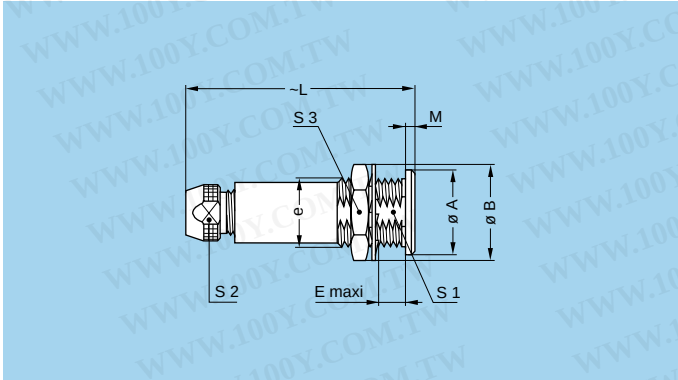
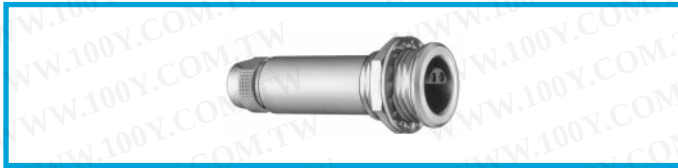
M1 Cable assembly (pages 163 and 164)



PZP Free socket for remote handling with cable collet and inner anti-rotating device

Reference		Dimensions (mm)				
Model	Series	A	L	N	S2	S3
PZP	1S	16	40.5	15	8.5	12
PZP	2S	24	50.0	21	11.0	18
PZP	3S	24	59.0	24	14.0	18

M1 Cable assembly (pages 163 and 164)



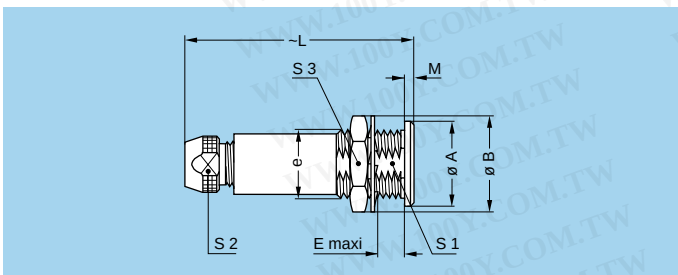
PSA Fixed socket, nut fixing, cable collet

Reference		Dimensions (mm)								
Model	Series	A	B	e	E	L	M	S1	S2	S3
PSA	00	8	10.2	M7x0.5	5.5	25.0	1.0	6.3	4.5	9
PSA	0S	10	12.4	M9x0.6	7.0	33.5	1.2	8.2	6.5	11
PSA	1S	14	15.8	M12x1.0	7.5	40.5	1.5	10.5	8.5	14
PSA	2S	18	19.2	M15x1.0	8.5	50.0	1.8	13.5	11.0	17
PSA	3S	22	25.0	M18x1.0	11.5	59.0	2.0	16.5	14.0	22
PSA	4S	28	34.0	M25x1.0	12.0	75.0	2.5	23.5	19.0	30
PSA	5S	40	40.0	M35x1.0	15.5	99.0	3.0	33.5	29.0	—
PSA	6S	54	54.0	M48x1.5	16.0	102.0	3.5	45.5	38.0	—

M1 Cable assembly (pages 163 to 165)

P1 Panel cut-out (page 152)

Note: the 5S series is delivered with a tapered washer and a round nut. The 6S series is delivered without a locking washer and with a round nut.

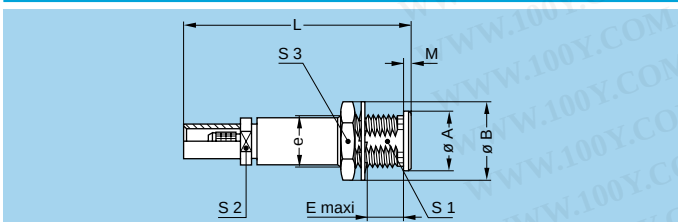
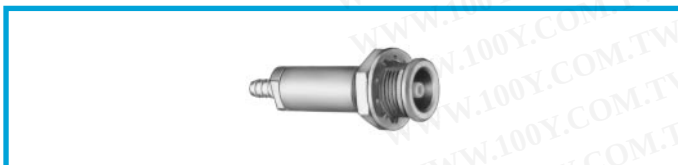


PSP Fixed socket, nut fixing, cable collet and inner anti-rotating device

Reference		Dimensions (mm)								
Model	Series	A	B	e	E	L	M	S1	S2	S3
PSP	0S	10	12.4	M9x0.6	7.0	33.5	1.2	8.2	6.5	11
PSP	1S	14	15.8	M12x1.0	7.5	40.5	1.5	10.5	8.5	14
PSP	2S	18	19.2	M15x1.0	8.5	50.0	1.8	13.5	11.0	17
PSP	3S	22	25.0	M18x1.0	11.5	59.0	2.0	16.5	14.0	22
PSP	4S	28	34.0	M25x1.0	12.0	75.0	2.5	23.5	19.0	30

M1 Cable assembly (pages 163 and 164)

P1 Panel cut-out (page 152)



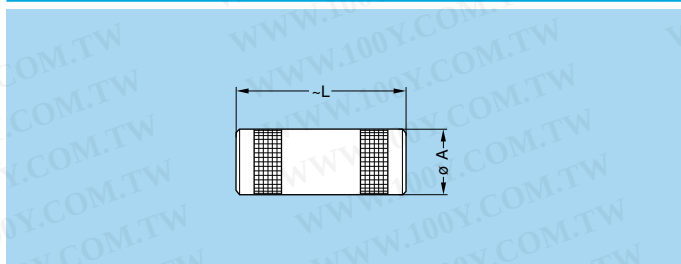
PSS Free socket, nut fixing for cable crimping

Reference		Dimensions (mm)								
Model	Series	A	B	e	E	L	M	S1	S2	S3
PSS	00	8	10.2	M7x0.5	5.5	30	1	6.3	5.5	9

M5 Cable assembly (page 163)

P1 Panel cut-out (page 152)

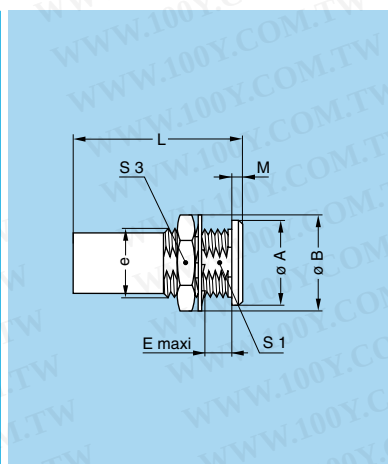
Note: Model available only with crimp backnut E31 similar to 00.250 series.



RMA Free coupler

Reference		Dim. (mm)	
Model	Series	A	L
RMA	00	6.4	22.0
RMA	0S	8.9	25.0
RMA	1S	11.9	28.5
RMA	2S	14.8	31.5
RMA	3S	17.8	38.5
RMA	4S	24.8	46.5
RMA	5S	34.7	60.5

Note: see page 101 for the available plug and contact configurations and in order to ensure correct contact alignment.



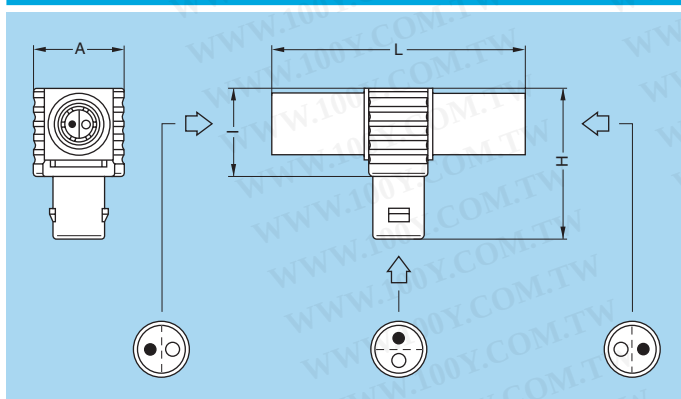
RAD Fixed coupler, nut fixing

Reference		Dimensions (mm)							
Model	Series	A	B	e	E	L	M	S1	S2
RAD	00	8	10.2	M7x0.5	5.5	22.0	1.0	6.3	9
RAD	0S	10	12.4	M9x0.6	7.0	25.0	1.2	8.2	11
RAD	1S	14	15.8	M12x1.0	7.5	28.5	1.5	10.5	14
RAD	2S	18	19.2	M15x1.0	8.5	31.5	1.8	13.5	17
RAD	3S	22	25.0	M18x1.0	11.5	38.5	2.0	16.5	22
RAD	4S	28	34.0	M25x1.0	12.0	46.5	2.5	—	30
RAD	5S	40	40.0	M35x1.0	15.5	60.5	3.0	—	—

P1 Panel cut-out (page 152)

P2 Panel cut-out 4S and 5S series (page 152)

Note: the 5S series is delivered with a tapered washer and a round nut.



FTA T-plug with two in line sockets

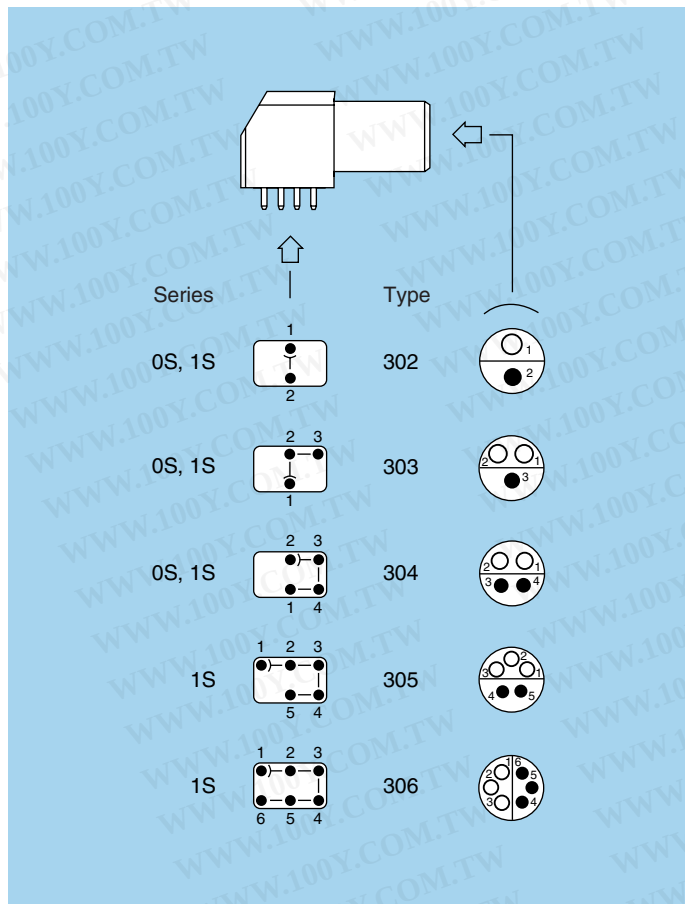
Reference		Dimensions (mm)			
Model	Series	A	H	I	L
FTA	00	9	17.5	9.5	30
FTA	0S	13	23.0	13.0	38
FTA	1S	16	26.5	16.5	45
FTA	3S	21	38.5	23.5	64

Note: multipole version available only with 2 contacts (type 302).

Elbow socket models

Technical Characteristics

Types



Materials and Treatment

Component	Material	Surface Treat. (µm)		
		Cu	Ni	Au
Housing	PPS 1)	–	–	–
Metallic parts	Brass	0.5	3	–
Earthing crown	Brass	0.5	3	–
Insulator	PEEK	–	–	–
Female contact	Bronze	0.5	3	1.5

Note: 1) not used for all sizes.

The surface treatment standards are as follows:

- Nickel FS QQ-N-290A
- Gold: ISO 4523

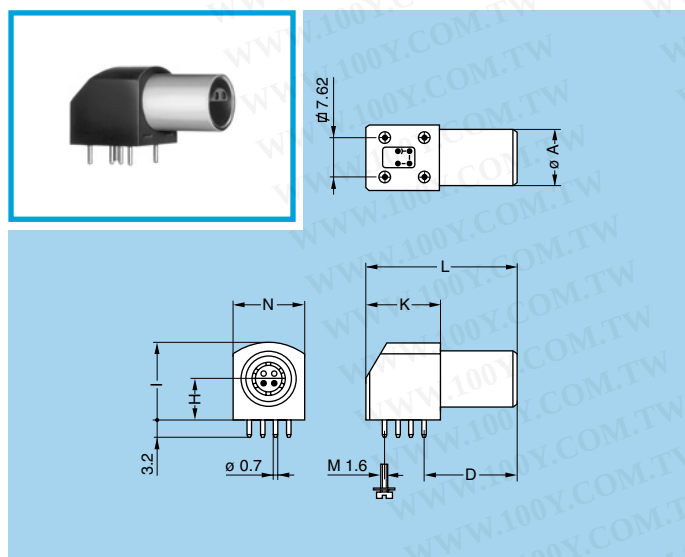
Electrical

Model	Series	Types	Test voltage (kV rms) ¹⁾	Rated current (A)
EPL	0S	302-303-304	1.20	4.5
EXP	0S			
EPL	1S			
EXP	1S	305-306	0.70	4.5
EPL	1S			
EXP	1S			

Note:

1) see calculation method, caution and suggested standard on page 178.

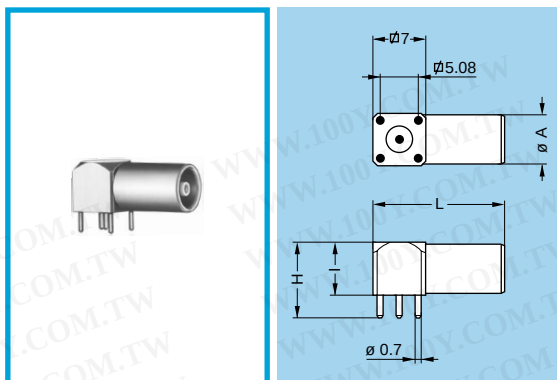
EPL Elbow (90°) socket for printed circuit (solder or screw fixing)



Part Number	Dimensions (mm)						
	A	D	H	I	K	L	N
EPL.0S.302.HLN	9	14.6	6.7	12.7	13.3	25	11.7
EPL.0S.303.HLN							
EPL.0S.304.HLN							
EPL.1S.302.HLN	11	16.6	7.5	14.0	13.3	27	12.6
EPL.1S.303.HLN							
EPL.1S.304.HLN							
EPL.1S.305.HLN							
EPL.1S.306.HLN							

Note: to replace the 4 ground pins by 4 screws (M1.6) add an «S» to the end of the part number. (e.g.: EPL.1S.303.HLNS)

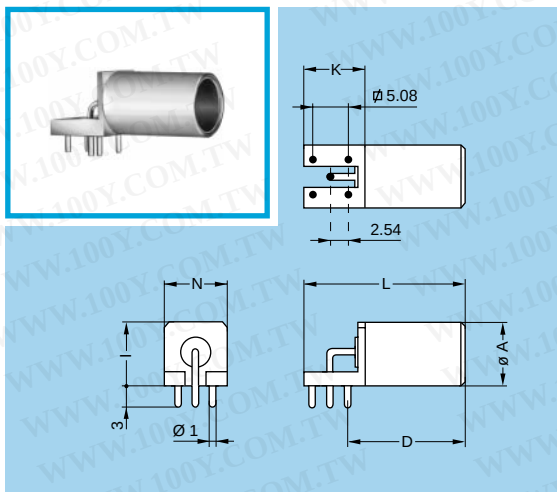
P22 PCB drilling pattern (page 160)



EPL Elbow (90°) socket for printed circuit

Part Number	Dim. (mm)		
	A	H	I
EPL.00.113.NLN	6.8	10	7

P23 PCB drilling pattern (page 160)

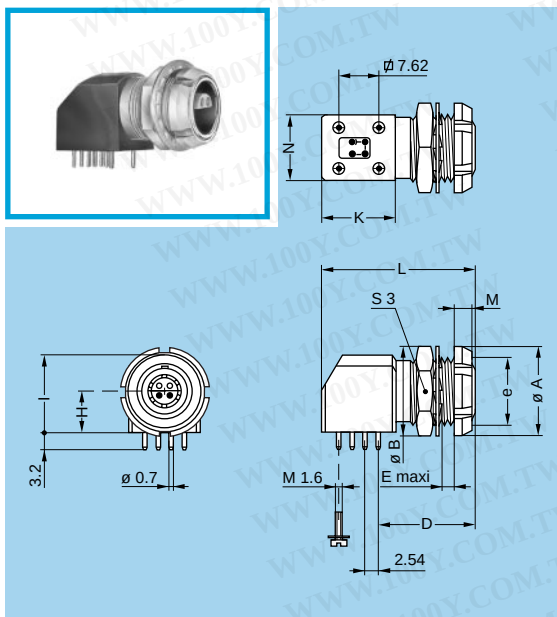


EPL Elbow (90°) socket for printed circuit

Part Number	Dimensions (mm)						
	A	D	H	I	K	L	N
EPL.0S.116.DTL	8.8	16	12	9	7.7	22.7	9

Note: available only in unipole version.

P23 PCB drilling pattern (page 160)



EXP Elbow (90°) socket for printed circuit with two nuts (solder or screw fixing)

Part Number	Dimensions (mm)											
	A	B	D	e	E	H	I	K	L	M	N	S3
EXP.0S.302.HLN												
EXP.0S.303.HLN	12	12.4	14.6	M9x0.6	6.0	6.7	12.7	13.3	25	2.5	11.7	11
EXP.0S.304.HLN												
EXP.1S.302.HLN												
EXP.1S.303.HLN												
EXP.1S.304.HLN	14	15.0	16.6	M11x0.5	7.5	7.5	14.0	13.3	27	3.5	12.6	13
EXP.1S.305.HLN												
EXP.1S.306.HLN												

Note: to replace the 4 ground pins by 4 screws (M1.6) add an «S» to the end of the part number. (e.g.: EXP.1S.303.HLNS).

P2 Panel cut-out 0S series (page 152)

P10 Panel cut-out 1S series (page 152)

P22 PCB drilling pattern (page 160)

Plastic housing models

These connectors are particularly recommended for all applications requiring maximum electrical insulation when mated. The design, including a latch sleeve and a metal earthing crown, guarantees EMC screening efficiency to meet most requirements.

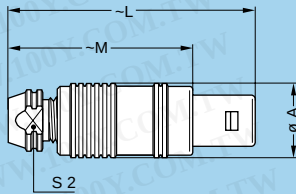
Technical Characteristics

Mechanical and Climatical

Characteristics	Value				Standard
	PEEK	POM	PSU	PPSU	
Colour	natural (beige)	black	white or grey	cream	—
Endurance	> 5000 cycles	> 5000 cycles	> 5000 cycles	> 5000 cycles	IEC 60512-5 test 9a
Humidity	up to 95% at 60° C				—
Temperature range	- 50° C/+250° C	- 50° C/+115° C	- 50° C/+150° C	- 50° C/+180° C	—
Sterilization resistance ¹⁾	> 200 cycles	none	~20 cycles	> 100 cycles	IEC 60601-1 § 44.7
Resistance to organic solvents	very good	very good	limited	good	—

Note:

¹⁾ Steam sterilization



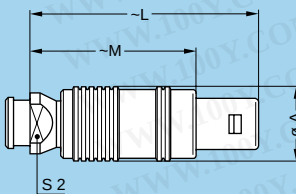
FFA Straight plug, cable collet, PEEK or POM outer shell

FFP Straight plug, cable collet, PEEK or POM outer shell and inner anti-rotating device

Reference		Dimensions (mm)			
Model	Series	A	L	M	S2
FFA	00	7.0	33.5	25.5	6.0
FFP	0S	9.5	34.5	24.5	8.0
FFP	1S	12.0	42.5	31.5	10.0
FFP	2S	15.0	52.0	40.0	12.0
FFP	3S	18.0	61.0	46.0	14.0

M1

Cable assembly (pages 163 and 164)

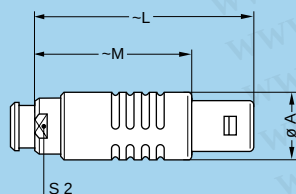


FFP Straight plug, cable collet, PEEK or POM outer shell, inner anti-rotating device and nut for fitting a bend relief ¹⁾

Reference		Dimensions (mm)			
Model	Series	A	L	M	S2
FFP	0S	9.5	33.5	23.5	7.0
FFP	1S	12.0	41.5	30.5	10.0
FFP	2S	15.0	51.0	39.0	12.0
FFP	3S	18.0	61.0	46.0	14.0

M1 Cable assembly (pages 163 and 164)

Note: ¹⁾ to order, add a «Z» at the end of the reference. The bend relief must be ordered separately (see page 141).

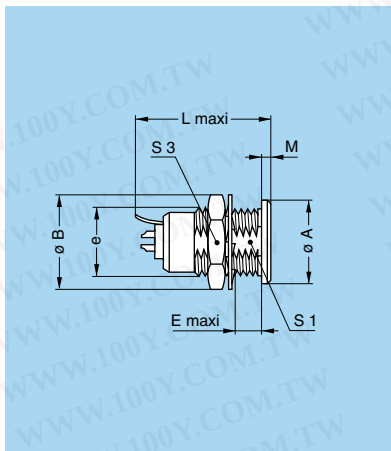


FFL Straight plug, cable collet, with PSU and PPSU outer shell, inner anti-rotating device and nut for fitting a bend relief ¹⁾

Reference		Dimensions (mm)			
Model	Series	A	L	M	S2
FFL	2S	16.5	51.5	39.5	13

M4 Cable assembly (page 165)

Note: ¹⁾ to order, add a «Z» at the end of the reference. The bend relief must be ordered separately (see page 141). This model is fitted with a «D or M» type collet system. It is also adapted for crimp contacts. Available only for multipole.



ERN Fixed socket, nut fixing, with earthing tag, PEEK or POM outer shell

Reference		Dimensions (mm)								
Model	Series	A	B	e	E	L	L ¹⁾	M	S1	S3
ERN	00	9	10.2	M7x0.5	5.5	—	14.5	1.0	6.3	9
ERN	0S	11	12.4	M9x0.6	6.4	19.3	19.3	1.8	8.2	11
ERN	1S	14	15.8	M12x1.0	7.5	22.4	22.4	1.5	10.5	14
ERN	2S	18	19.2	M15x1.0	8.5	26.3	26.3	2.0	13.5	17
ERN	3S	22	25.0	M18x1.0	11.5	29.8	29.8	2.0	16.5	22

P1 Panel cut-out (page 152)

Note: ¹⁾ unipole model

Watertight or vacuumtight models

These socket or coupler models allow the device on which they are fitted to reach a protection index of IP68 as per IEC 60529. They are fully compatible with plugs of the same series and are widely used for portable radios, military, laboratory equipment, aviation, etc.

These models are identified by a letter «P» at the end of the reference.

Most of these models are also available in a vacuumtight version. Such models are identified by an additional letter «V» at the end of the part number (certificate on request).

Epoxy resin is used to seal these models.

Technical Characteristics

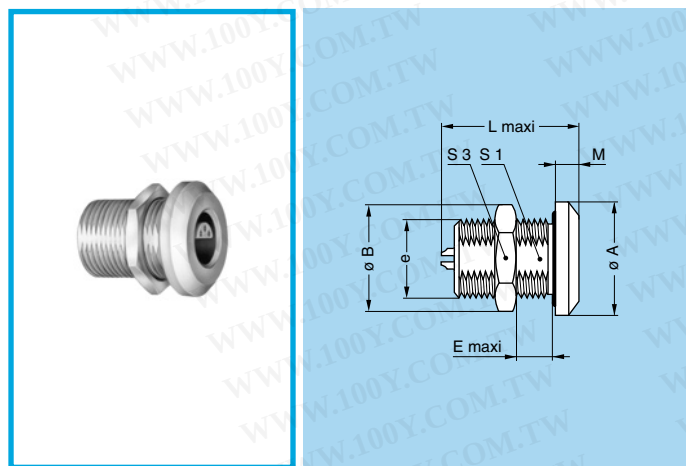
Mechanical and Climatical

Characteristics	Value	Standard
Endurance	> 5000 cycles	IEC 60512-5 test 9a
Humidity	up to 95% at 60° C	
Temperature range (0S-1S)	- 20° C/+100° C	
Temperature range (2S-6S)	- 20° C/+80° C	
Salt spray corrosion test	> 144h	IEC 60512-6 test 11f
Climatical category	20/80/21	IEC 60068-1
Leakage rate (He) ¹⁾	< 10 ⁻⁷ mbar.l.s ⁻¹	IEC 60512-7 test 14b

Note: ¹⁾ only for vacuumtight models.

Characteristics	Value	Standard
Maximum operating pressure ²⁾	0S	60 bars
	1S	60 bars
	2S	40 bars
	3S	30 bars
	4S	15 bars
	5S	5 bars
	6S	5 bars
		IEC 60512-7 test 14d

Note: ²⁾ this value corresponds to the maximum allowed pressure difference for the assembled socket.



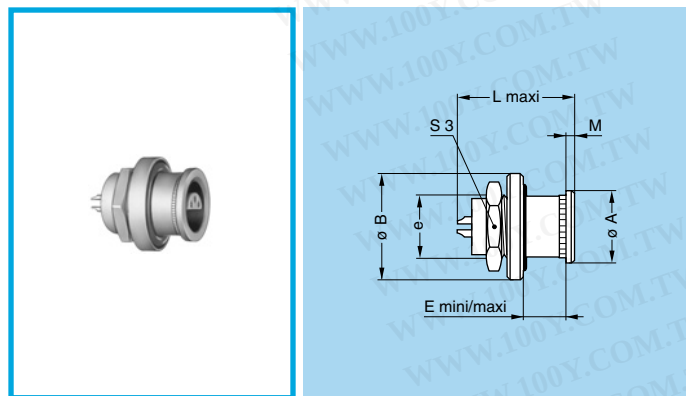
HGP Fixed socket, nut fixing, watertight or vacuumtight

Reference		Dimensions (mm)								
Model	Series	A	B	e	E	L	L ¹⁾	M	S1	S3
HGP	0S	18	15.8	M12x1.0	11.5	20.5	21.5	4.0	10.5	14
HGP	1S	20	19.2	M14x1.0	15.5	25.0	22.0	4.0	12.5	17
HGP	2S	20	21.5	M16x1.0	17.0	29.5	28.0	4.0	14.5	19
HGP	3S	28	27.0	M20x1.0	18.0	33.0	34.0	6.0	18.5	24
HGP	4S	34	34.0	M25x1.0	22.5	39.0	43.0	6.5	23.5	30
HGP	5S	45	40.0	M35x1.0	28.0	50.5	78.5	7.5	33.5	—
HGP	6S	58	54.0	M48x1.5	22.0	51.0	—	6.0	45.5	—

P3 Panel cut-out (page 152)

Note: ¹⁾ unipole model

Note: the 5S and 6S series are delivered with a round nut.

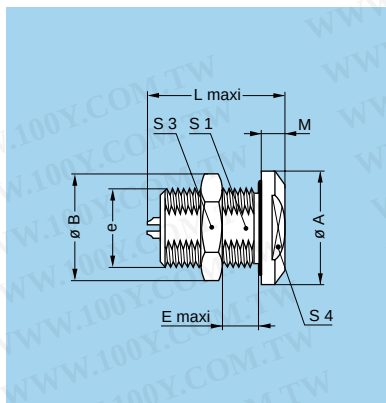


HGW Fixed socket, nut fixing, with back washer, watertight or vacuumtight

Reference		Dimensions (mm)							
Model	Series	A	B	e	E _{mini}	E _{maxi}	L	M	S3
HGW	0S	10	15	M9x0.6	2.0	3.0	17.5	1.2	11
HGW	1S	14	18	M12x1.0	2.0	4.0	25.0	1.5	14

P11 Panel cut-out (page 152)

Note: vacuumtight version is only available in the 0S series.

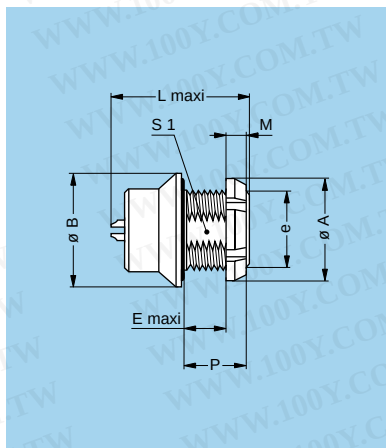


EWB Fixed socket, nut fixing, with two flats on the flange, watertight or vacuumtight

Reference		Dimensions (mm)									
Model	Series	A	B	e	E	L	L ¹⁾	M	S1	S3	S4
EWB	0S	18	15.8	M12x1.0	11.0	20.5	—	4.0	10.5	14	14
EWB	1S	20	19.2	M14x1.0	15.5	25.5	25.5	4.0	12.5	17	16
EWB	2S	20	21.5	M16x1.0	17.0	28.0	26.5	4.0	14.5	19	16
EWB	4S	34	34.0	M25x1.0	22.5	43.0	—	6.5	23.5	30	27

P3 Panel cut-out (page 152)

Note: ¹⁾ unipole model

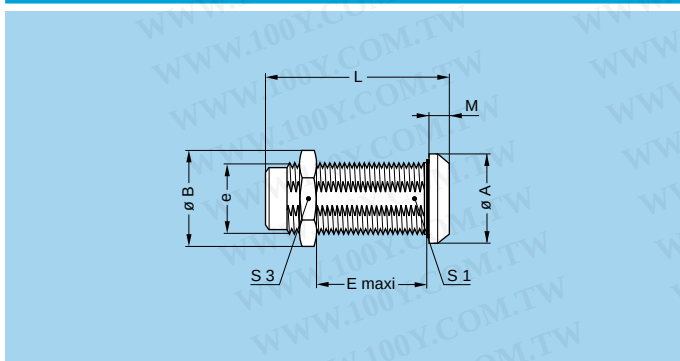


HCP Fixed socket, nut fixing, watertight or vacuumtight (back panel mounting)

Reference		Dimensions (mm)							
Model	Series	A	B	e	E	L	M	P	S1
HCP	1S	18	20	M14x1.0	8.6	25.5	3.5	12.0	—
HCP	2S	20	20	M16x1.0	12.5	29.0	3.5	16.5	14.5
HCP	4S	27	34	M25x1.0	15.5	41.0	4.5	20.0	23.5

P3 Panel cut-out (page 152)

Note: the 4S series is delivered with a conical nut.



SWH Fixed coupler, nut fixing, watertight or vacuumtight

Reference		Dimensions (mm)							
Model	Series	A	B	e	E	L	M	S1	S3
SWH	0S	14	13.8	M10x0.75	17	34	2.0	9.0	12
SWH	1S	17	15.8	M12x1.00	28	39	2.5	10.5	14
SWH	2S	20	21.5	M16x1.00	25	44	4.0	15.0	19
SWH	3S	25	27.0	M20x1.00	30	53	4.0	18.5	24
SWH	4S	34	34.0	M25x1.00	50	65	4.0	23.5	30
SWH	5S	45	40.0	M35x1.00	58	80	5.0	33.5	—
SWH	6S	58	54.0	M48x1.50	55	81	6.0	45.5	—

P4 Panel cut-out (page 152)

Note: see page 101 for the available plug and contact configurations and in order to ensure correct contact alignment.
The 5S and 6S series are delivered with a round nut.

E Series

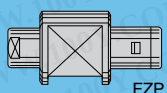
E series connectors have been specifically designed for outdoor applications.

They include an inner sleeve and two seals to prevent penetration of solids or liquids into the housing formed by the plug, free socket, fixed socket or coupler. All models of these series are watertight when mated and give a protection index of IP 68 as per IEC 60529 standard (in mated condition) when correctly assembled to an appropriate cable (IP 66 otherwise).

- security of the Push-Pull latching system
- unipole types transmitting current up to 230 A and multipole types with up to 106 contacts
- wide range of models satisfying most applications
- 360° screening for full EMC shielding
- watertight connection (IP 68/IP 66)
- polarization by stepped insert (half-moon) fitted with male and female contacts
- solder or print contacts (straight or elbow)
- rugged housing for extreme working condition.

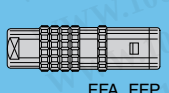
Metal housing models (page 76)

Straight plug



FZP

Straight plugs



FFA, FFP

Fixed sockets

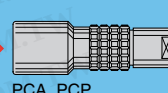


ERA



EEP

Free sockets

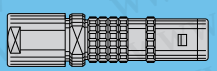


PCA, PCP

Fixed plug



FAA



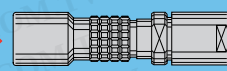
FFA



ERC

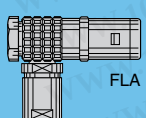


EEP

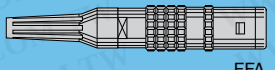


PCA

Elbow plug



FLA



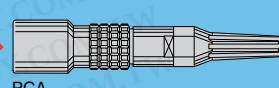
FFA



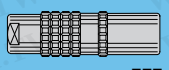
ERB



EEP



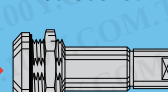
PCA



FFF



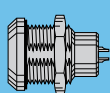
EHP



PSA

Watertight or vacuumtight models (page 82)

Fixed sockets

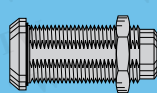


HGP



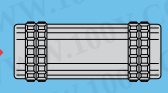
EBR

Fixed coupler



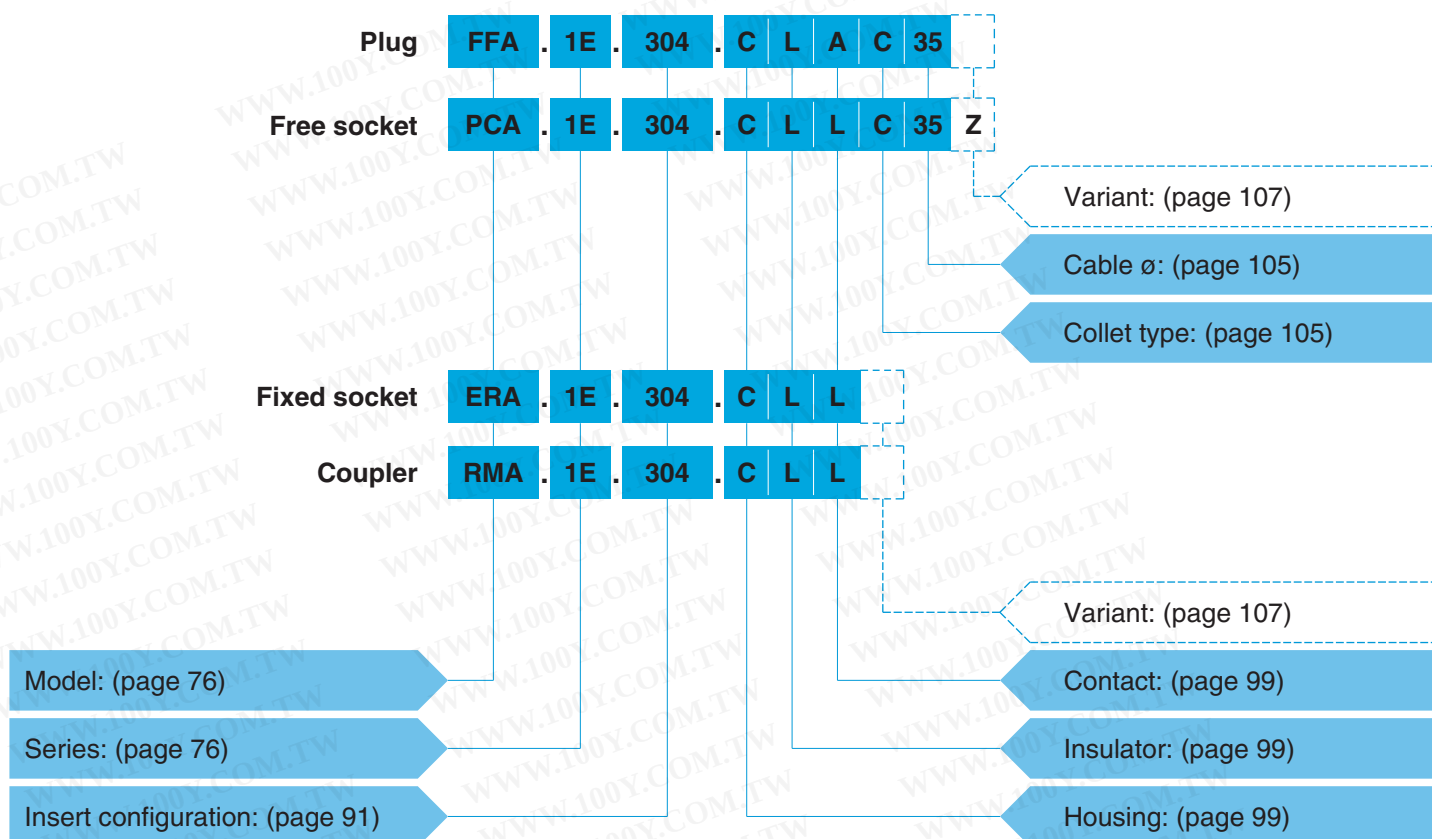
SWH

Free coupler



RMA

Part Numbering System



Part Number Example

Straight plug with cable collet:

FFA.1E.304.CLAC35 = straight plug with cable collet, 1E series, multipole type with 4 contacts, outer shell in chrome-plated brass, PEEK insulator, 2 male and 2 female solder contacts, C type collet for a 3.5 mm diameter cable.

Free socket:

PCA.1E.304.CLLC35Z = free socket with cable collet, 1E series, multipole type with 4 contacts, outer shell in chrome-plated brass, PEEK insulator, 2 female and 2 male solder contacts, C type collet for a 3.5 mm diameter cable and collet nut for fitting a bend relief.

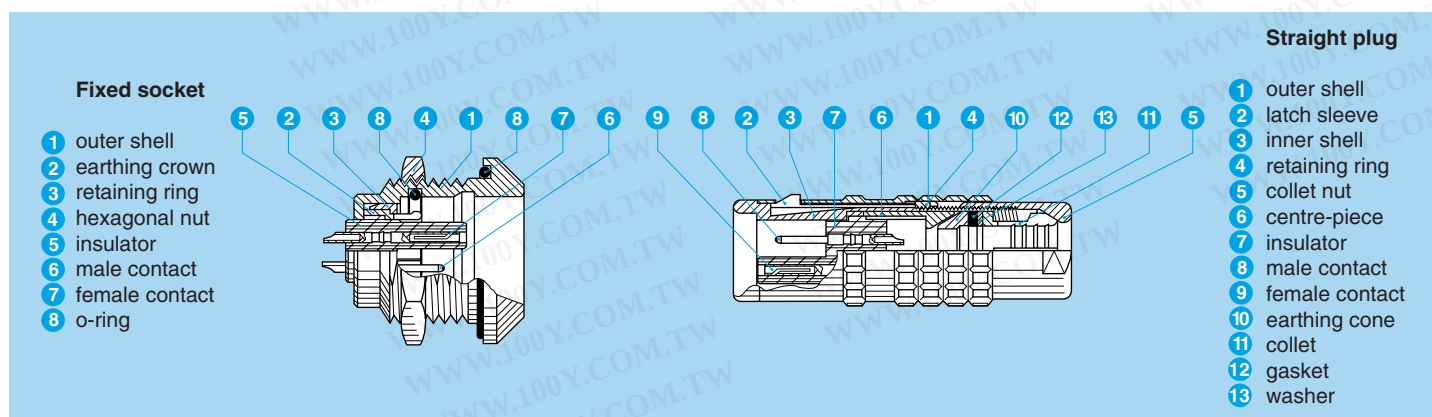
Fixed socket:

ERA.1E.304.CLL = fixed socket, nut fixing, 1E series, multipole type with 4 contacts, outer shell in chrome-plated brass, PEEK insulator, 2 female and 2 male solder contacts.

Free coupler:

RMA.1E.304.CLL = straight coupler, 1E series, multipole type with 4 contacts, outer shell in chrome-plated brass, PEEK insulator, 2 female and 2 male contacts each end.

Part Section Showing Internal Components



Metal housing models

Technical Characteristics

Mechanical and Climatical

Characteristics	Value	Standard
Endurance	> 5000 cycles	IEC 60512-5 test 9a
Humidity	up to 95% at 60° C	
Temperature range ¹⁾	-55° C, +200° C	
Resistance to vibrations	10-2000 Hz, 15 g	IEC 60512-4 test 6d
Shock resistance	100 g, 6 ms	IEC 60512-4 test 6c
Salt spray corrosion test	> 144h	IEC 60512-6 test 11f
Protection index (mated) ²⁾	IP 68/IP 66	IEC 60529
Climatical category	50/175/21	IEC 60068-1

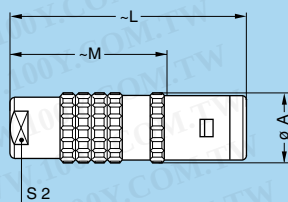
Electrical

Characteristics	Value	Standard
Shielding efficiency	at 10 MHz	> 95 dB
	at 1 GHz	> 80 dB
		IEC 60169-1-3
		IEC 60169-1-3

Note: the various tests have been carried out with FFA and ERA connector pairs, with chrome-plated brass shell, PEEK insulator and silicone O-ring. Detailed electrical characteristics, as well as materials and treatment are presented in the chapter Technical Characteristics on page 171.

¹⁾ minimum operating temperature is -20°C for sockets fitted with an FPM (Viton®) O-ring.

²⁾ IP68 achieved providing that the cable is perfectly circular and that assembly process ensures a high integrity seal.



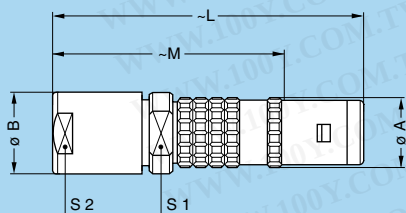
FFA Straight plug, cable collet

Reference		Dimensions (mm)			
Model	Series	A	L	M	S2
FFA	0E	11	34	23.0	8
FFA	1E	13	42	28.0	9
FFA	2E	16	52	36.0	12
FFA	3E	19	61	41.0	15
FFA	4E	25	71	50.5	19
FFA	5E	38	92	67.0	32
FGG ¹⁾	6E	47	118	89.0	38

M1

Cable assembly (pages 167 and 168)

Note: ¹⁾ with key (G)

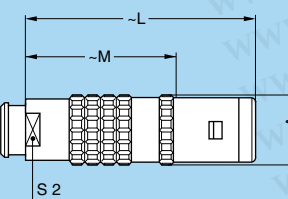


FFA Straight plug with oversize cable collet ¹⁾

Reference		Dimensions (mm)					
Model	Series	A	B	L	M	S1	S2
FFA	1E	13	14.5	55	41	12	12
FFA	2E	16	17.0	65	49	15	15
FFA	3E	19	22.0	80	60	19	19
FFA	4E	25	36.0	118	84	30	32

M2 Cable assembly (pages 167 and 169)

Note: ¹⁾ correspond to K type of collet, the fitting of oversize collets onto this model allows them to be fitted to the cables that can be accommodated by the next housing size up (see page 105).



FFA Straight plug, cable collet and nut for fitting a bend relief ¹⁾

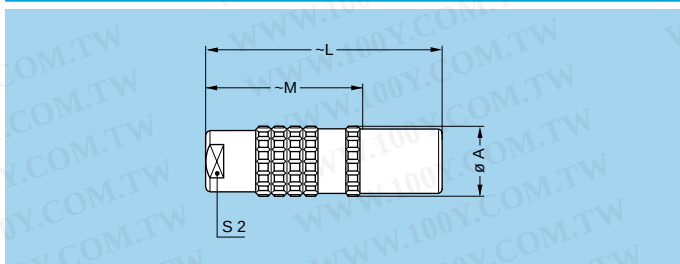
Reference		Dimensions (mm)			
Model	Series	A	L	M	S2
FFA	0E	11	34	23.0	7
FFA	1E	13	42	28.0	9
FFA	2E	16	52	36.0	12
FFA	3E	19	60	40.0	15
FFA	4E	25	71	50.5	19

M1

Cable assembly (pages 167 and 168)

Note: ¹⁾ to order, add a «Z» at the end of the reference.

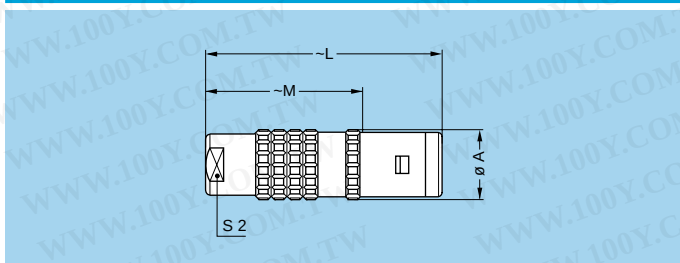
The bend relief must be ordered separately (see page 141).



FFF Straight plug non-latching, cable collet

Reference		Dimensions (mm)			
Model	Series	A	L	M	S2
FFF	0E	11	34	23	8
FFF	1E	13	42	28	9

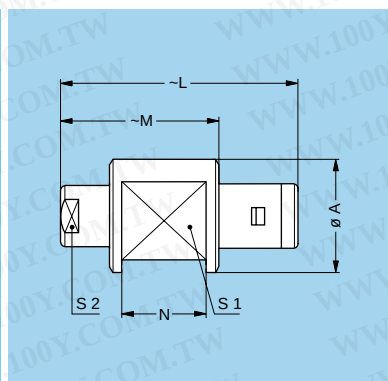
M1 Cable assembly (page 167)



FFP Straight plug, cable collet and inner anti-rotating device

Reference		Dimensions (mm)			
Model	Series	A	L	M	S2
FFP	3E	19	61	41.0	15
FFP	4E	25	71	50.5	19

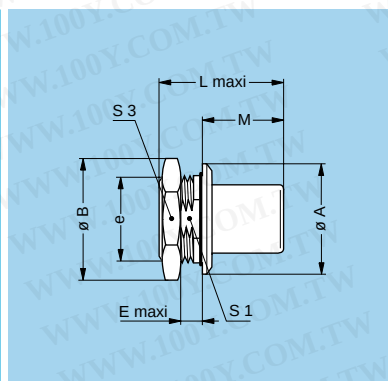
M1 Cable assembly (pages 167 and 168)



FZP Straight plug for remote handling, cable collet and inner anti-rotating device

Reference		Dimensions (mm)					
Model	Series	A	L	M	N	S1	S2
FZP	1E	20	42	28.0	15	15	9
FZP	2E	22	52	36.0	16	16	12
FZP	3E	23	61	41.0	20	19	15
FZP	4E	32	71	50.5	29	25	19
FZP	5E	44	92	67.0	40	36	32

M1 Cable assembly (pages 167 and 168)

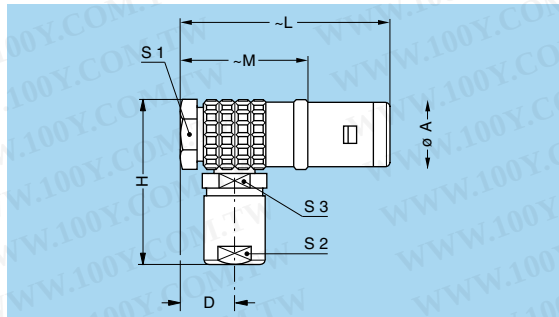
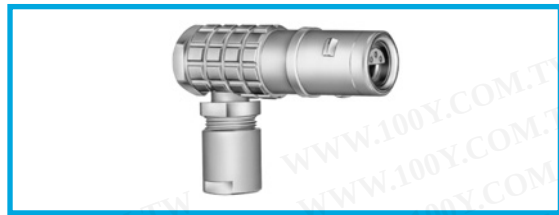


FAA Fixed plug non-latching, nut fixing

Reference		Dimensions (mm)								
Model	Series	A	B	e	E	L	L ¹⁾	M	S1	S3
FAA	0E	18	19.2	M14x1.0	3.5	19.5	19.5	13.0	12.5	17
FAA	1E	20	21.5	M16x1.0	3.5	23.0	23.0	16.0	14.5	19
FAA	2E	25	27.0	M20x1.0	4.0	27.0	27.0	18.0	18.5	24
FAA	3E	31	34.0	M24x1.0	4.5	32.5	32.5	22.5	22.5	30

P1 Panel cut-out (page 153)

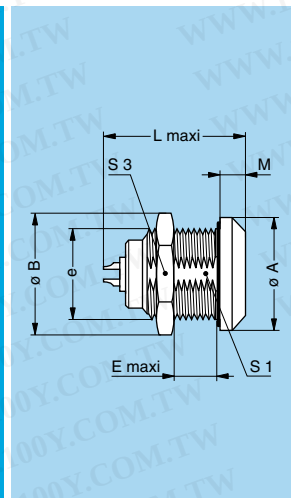
Note: ¹⁾ unipole model



FLA Elbow (90°) plug, cable collet

Reference		Dimensions (mm)							
Model	Series	A	D	H	L	M	S1	S2	S3
FLA	0E	11.5	7.6	27	36	25.0	10	8	8
FLA	1E	14.0	8.8	33	43	29.0	12	9	10
FLA	2E	17.5	10.5	40	51	35.0	15	12	13
FLA	3E	21.0	11.5	47	60	40.0	18	15	15
FLA	4E	27.5	15.5	57	72	51.5	24	19	20

M3 Cable assembly (pages 167 and 168)



ERA Fixed socket, nut fixing

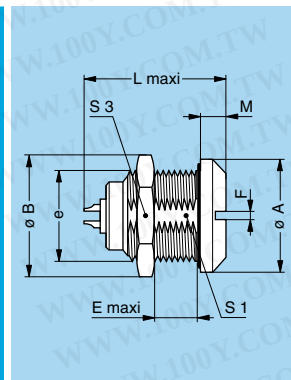
Reference		Dimensions (mm)								
Model	Series	A	B	e	E	L	L ¹⁾	M	S1	S3
ERA	0E	18	19.2	M14x1.0	5.5	19.5	20.5	4.0	12.5	17
ERA	1E	20	21.5	M16x1.0	9.0	24.0	25.3	4.5	14.5	19
ERA	2E	25	27.0	M20x1.0	9.0	28.5	30.0	5.0	18.5	24
ERA	3E	31	34.0	M24x1.0	11.0	34.0	35.0	6.0	22.5	30
ERA	4E	37	40.5	M30x1.0	9.0	36.0	38.0	6.5	28.5	36
ERA	5E	55	54.0	M45x1.5	10.0	44.5	78.0	9.0	42.5	—
EGG ²⁾	6E	65	65.0	M55x2.0	10.5	48.5	—	10.0	52.0	—

P1 Panel cut-out (page 153)

Note: The 5E and 6E series are delivered with a round nut.

¹⁾ unipole model.

²⁾ with key (G).

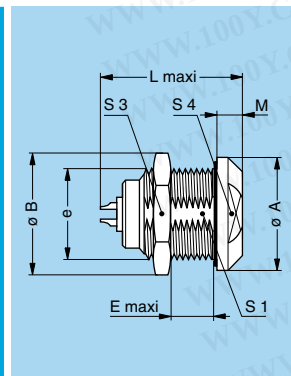


ERC Fixed socket, nut fixing with slot in the flange

Reference		Dimensions (mm)									
Model	Series	A	B	e	E	F	L	L ¹⁾	M	S1	S3
ERC	0E	18	19.2	M14x1.0	5.5	1.5	19.5	20.5	4.0	12.5	17
ERC	3E	31	34.0	M24x1.0	11	3.0	34.0	35.0	6.0	22.5	30
ERC	4E	37	40.5	M30x1.0	9	3.0	36.0	38.0	6.5	28.5	36

P1 Panel cut-out (page 153)

Note: ¹⁾ unipole model

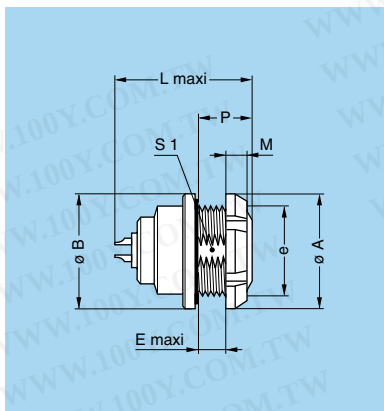


ERB Fixed socket, nut fixing with two flats in the flange

Reference		Dimensions (mm)									
Model	Series	A	B	e	E	L	L ¹⁾	M	S1	S3	S4
ERB	0E	18	19.2	M14x1.0	5.5	19.5	20.5	4.0	12.5	17	14
ERB	1E	20	21.5	M16x1.0	9	24.0	25.3	4.5	14.5	19	17
ERB	2E	25	27.0	M20x1.0	9	28.5	30.0	5.0	18.5	24	20
ERB	3E	31	34.0	M24x1.0	11	34.0	35.0	6.0	22.5	30	24

P1 Panel cut-out (page 153)

Note: ¹⁾ unipole model



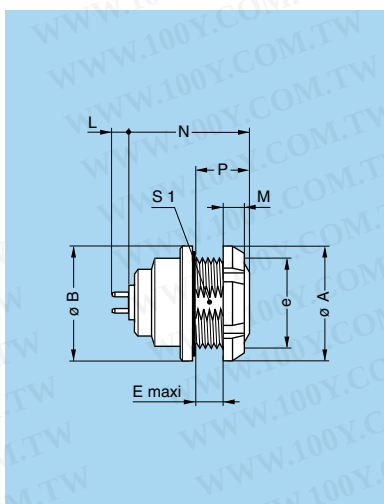
EEP Fixed socket, nut fixing (back panel mounting)

Reference		Dimensions (mm)								
Model	Series	A	B	e	E	L	L ¹⁾	M	P	S1
EEP	0E	18	18	M14x1.0	3.5	19.5	20.5	3.5	7	12.5
EEP	1E	20	20	M16x1.0	6.5	24.0	25.3	3.5	10	14.5
EEP	2E	25	25	M20x1.0	6.5	28.5	30.0	3.5	10	18.5
EEP	3E	30	31	M24x1.0	7.5	34.0	35.0	4.5	12	22.5

P1 Panel cut-out (page 153)

Note: ¹⁾ unipole model

Note: the 3E series is delivered with a conical nut.



EEP Fixed socket, nut fixing, with straight contact for printed circuit (back panel mounting)

Reference		Dimensions (mm)							
Model	Series	A	B	e	E	M	N	P	S1
EEP	0E	18	18	M14x1.0	3.5	3.5	16.0	7	12.5
EEP	1E	20	20	M16x1.0	6.5	3.5	21.5	10	14.5
EEP	2E	25	25	M20x1.0	6.5	3.5	24.0	10	18.5
EEP	3E	30	31	M24x1.0	7.5	4.5	29.5	12	22.5

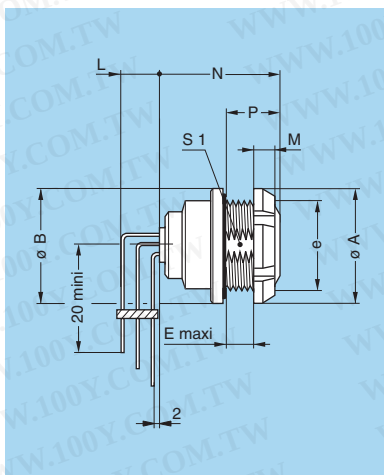
P1 Panel cut-out (page 153)

P21 PCB drilling pattern (page 159)

Note: this contact type is available for all E●● socket models.

See page 159 for table of available types.

Length «L» depends on the number of contacts, see PCB drilling pattern on page 159. The 3E series is delivered with a conical nut.



EEP Fixed socket, nut fixing, with elbow (90°) contacts for printed circuit (back panel mounting)

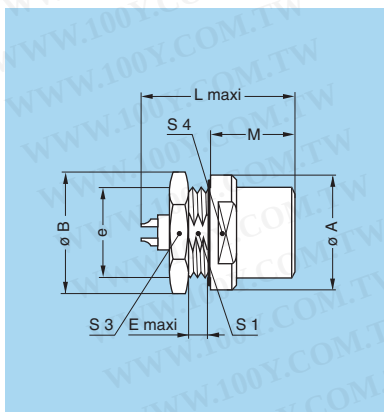
Reference		Dimensions (mm)							
Model	Series	A	B	e	E	M	N	P	S1
EEP	1E	20	20	M16x1.0	6.5	3.5	16.0	10	14.5
EEP	2E	25	25	M20x1.0	6.5	3.5	24.0	10	18.5

P1 Panel cut-out (page 153)

P24 PCB drilling pattern (page 160)

Note: this contact type is available for all back panel mounting socket types. See page 160 for available types.

Length «L» depends on the number of contacts, see PCB drilling pattern on page 160.

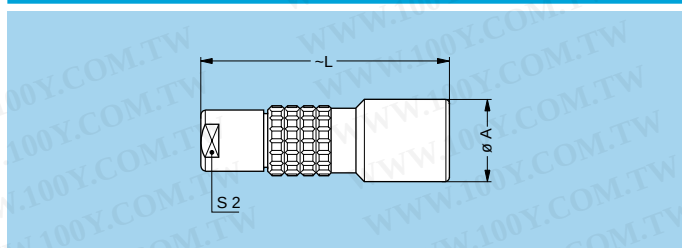
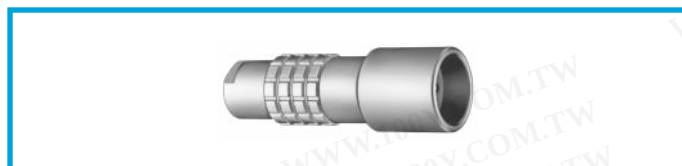


EHP Fixed socket, nut fixing, protruding shell

Reference		Dimensions (mm)									
Model	Series	A	B	e	E	L	L ¹⁾	M	S1	S3	S4
EHP	0E	18	19.2	M14x1.0	1.5	19.5	20.5	10.5	12.5	17	15
EHP	1E	20	21.5	M16x1.0	1.5	24.0	25.3	15.5	14.5	19	17
EHP	2E	25	27.0	M20x1.0	1.5	28.5	30.0	17.0	18.5	24	20

P1 Panel cut-out (page 153)

Note: ¹⁾ unipole model



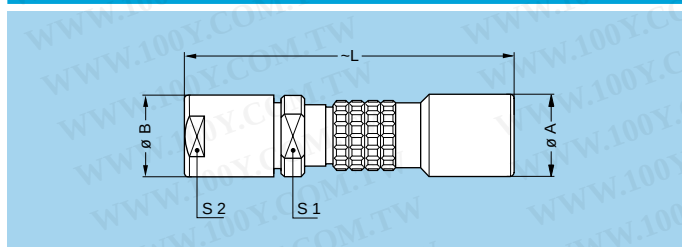
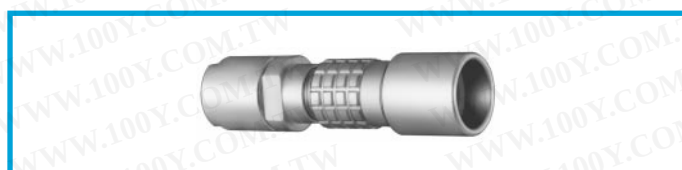
PCA Free socket, cable collet

Reference		Dimensions (mm)		
Model	Series	A	L	S2
PCA	0E	13	34.0	8
PCA	1E	15	45.0	9
PCA	2E	19	54.0	12
PCA	3E	23	65.0	15
PCA	4E	29	75.5	19
PCA	5E	42	95.0	32
PHG ¹⁾	6E	52	125.0	38

M1

Cable assembly
(pages 167 and 168)

Note: ¹⁾ with key (G)

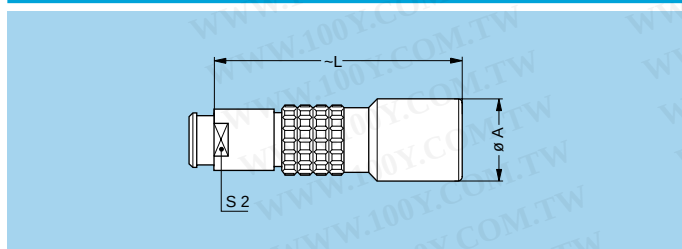
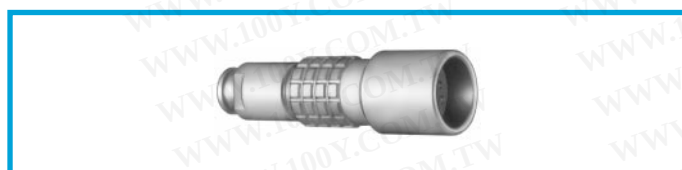


PCA Free socket with oversize cable collet ¹⁾

Reference		Dimensions (mm)				
Model	Series	A	B	L	S1	S2
PCA	1E	15	14.5	58.0	12	12
PCA	2E	19	17.0	67.0	15	15
PCA	3E	23	22.0	84.0	19	19
PCA	4E	29	36.0	109.0	30	32

M2 Cable assembly (pages 167 and 169)

Note: ¹⁾ correspond to K type of collet, the fitting of oversize collets onto this model allows them to be fitted to the cables that can be accommodated by the next housing size up (see page 105).



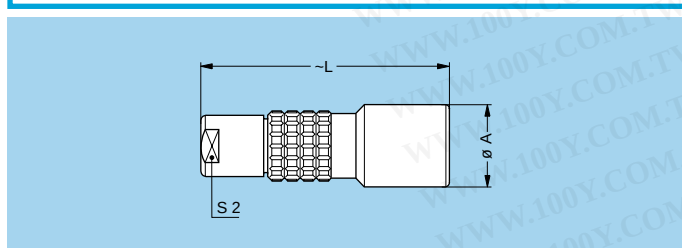
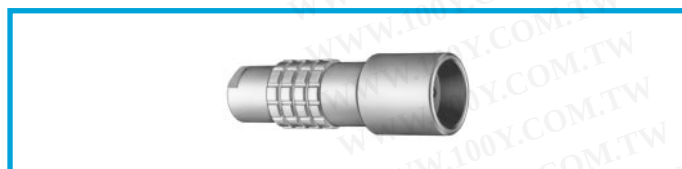
PCA Free socket, cable collet and nut for fitting a bend relief ¹⁾

Reference		Dimensions (mm)		
Model	Series	A	L	S2
PCA	0E	13	34.0	7
PCA	1E	15	45.0	9
PCA	2E	19	54.0	12
PCA	3E	23	64.0	15
PCA	4E	29	75.5	19

M1

Cable assembly
(pages 167 and 168)

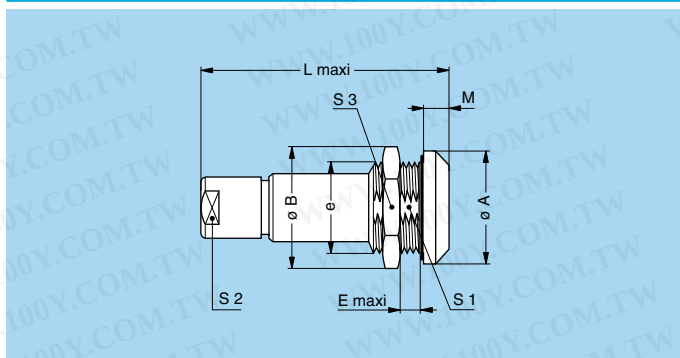
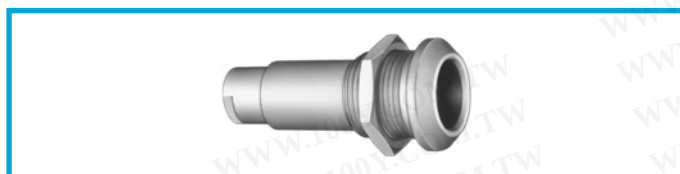
Note: ¹⁾ to order, add a «Z» at the end of the reference.
The bend relief must be ordered separately (see page 141).



PCP Free socket, cable collet and inner anti-rotating device

Reference		Dimensions (mm)		
Model	Series	A	L	S2
PCP	3E	23	65.0	15
PCP	4E	29	75.5	19

M1 Cable assembly (pages 167 and 168)



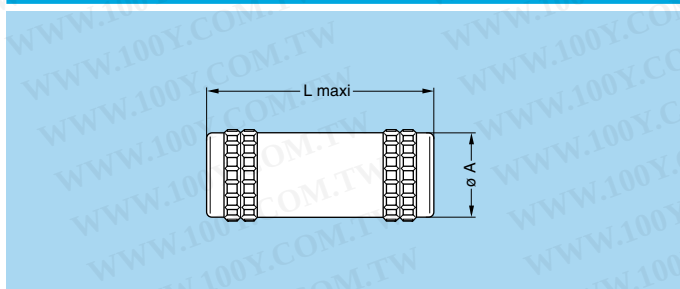
PSA Fixed socket, nut fixing, cable collet

Reference		Dimensions (mm)									
Model	Series	A	B	e	E	L	M	S1	S2	S3	
PSA	0E	18	19.2	M14x1.0	5.5	34.0	4.0	12.5	8	17	
PSA	1E	20	21.5	M16x1.0	9.0	45.0	4.5	14.5	9	19	
PSA	2E	25	27.0	M20x1.0	9.0	54.0	5.0	18.5	12	24	
PSA	3E	31	34.0	M24x1.0	11.0	65.0	6.0	22.5	15	30	
PSA	4E	37	40.5	M30x1.0	9.0	75.5	6.5	28.5	19	36	
PSA	5E	51	54.0	M45x1.5	10.0	95.0	9.0	–	32	54	
PKG ¹⁾	6E	65	65.0	M55x2.0	10.5	125.0	10.0	–	38	–	

P1 Panel cut-out (page 153)

M1 Cable assembly (pages 167 and 168)

Note: ¹⁾ with key (G).
The 5E and 6E series are delivered with a round nut.



RMA Free coupler

Reference		Dim. (mm)	
Model	Series	A	L
RMA	0E	14	30
RMA	1E	16	40
RMA	2E	20	44
RMA	3E	25	54
RMA	4E	30	57
RMA	5E	44	67

Note: see page 101 for the available plug and contact configurations and in order to ensure correct contact alignment.

Watertight or vacuumtight models

These socket or coupler models allow the device on which they are fitted to reach a protection index of IP 68 as per IEC 60529. They are fully compatible with plugs of the same series and are widely used for portable radios, military, laboratory equipment, aviation, etc.

These models are identified by a letter «P» at the end of the reference.

Most of these models are also available in a vacuumtight version. Such models are identified by an additional letter «V» at the end of the part number (certificate on request).

Epoxy resin is used to seal these models.

Technical Characteristics

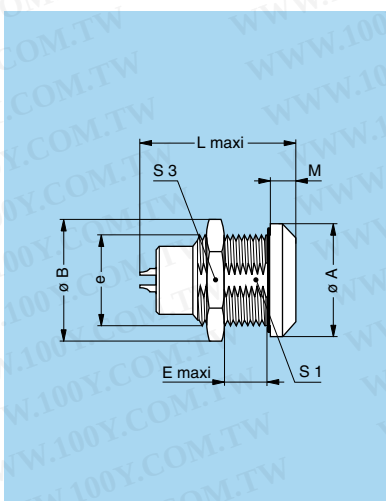
Mechanical and Climatical

Characteristics	Value	Standard
Endurance	> 5000 cycles	IEC 60512-5 test 9a
Humidity	up to 95% at 60° C	
Temperature range (0E-1E)	- 20° C/+100° C	
Temperature range (2E-6E)	- 20° C/+80° C	
Salt spray corrosion test	> 144h	IEC 60512-6 test 11f
Climatical category	20/80/21	IEC 60068-1
Leakage rate (He) ¹⁾	< 10 ⁻⁷ mbar.l.s ⁻¹	IEC 60512-7 test 14b

Note: ¹⁾ only for vacuumtight models.

Characteristics	Value	Standard
Maximum operating pressure ²⁾	0E	60 bars
	1E	60 bars
	2E	40 bars
	3E	30 bars
	4E	15 bars
	5E	5 bars
	6E	5 bars
		IEC 60512-7 test 14d

Note: ²⁾ this value corresponds to the maximum allowed pressure difference for the assembled socket.



HGP Fixed socket, nut fixing, watertight or vacuumtight

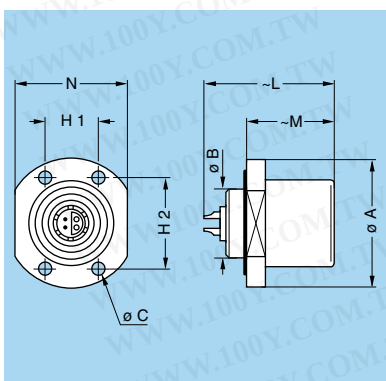
Reference		Dimensions (mm)								
Model	Series	A	B	e	E	L	L ¹⁾	M	S1	S3
HGP	0E	18	19.2	M14x1.0	5.5	23.5	22.0	4.0	12.5	17
HGP	1E	20	21.5	M16x1.0	9.0	28.0	28.0	4.5	14.5	19
HGP	2E	25	27.0	M20x1.0	10.5	32.5	28.0	5.0	18.5	24
HGP	3E	31	34.0	M24x1.0	15.5	39.5	38.5	6.0	22.5	30
HGP	4E	37	40.5	M30x1.0	17.5	43.0	44.0	6.5	28.5	36
HGP	5E	55	54.0	M45x1.5	20.0	52.0	76.0	9.0	42.5	—
HGP ²⁾	6E	65	65.0	M55x2.0	20.5	52.0	—	10.0	52.0	—

P1 Panel cut-out (page 153)

Note: The 5E and 6E series are delivered with a round nut.

¹⁾ unipole model.

²⁾ with key (G).



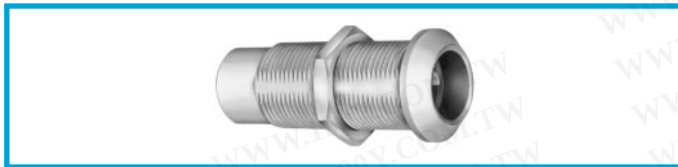
EBR Fixed socket with round flange, watertight, protruding shell and screw fixing

Reference		Dimensions (mm)								
Model	Series	A	B	C	H1	H2	L	L ¹⁾	M	N
EBR	2E	28	15	2.8	11.8	20.4	32.5	28.0	19	25

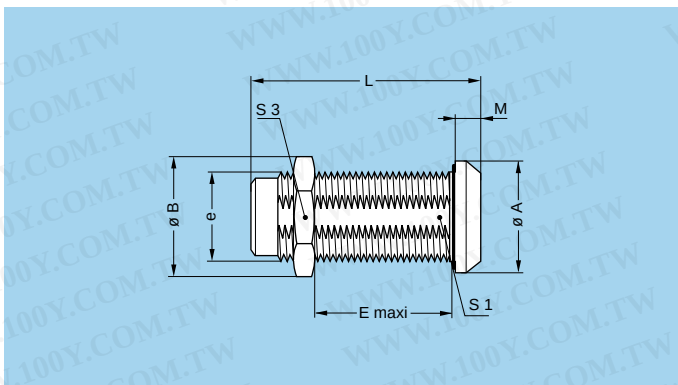
P6 Panel cut-out (page 153)

Note: ¹⁾ unipole model.

This model is only available in a watertight version.



SWH Fixed coupler, nut fixing, watertight or vacuumtight



Reference		Dimensions (mm)							
Model	Series	A	B	e	E	L	M	S1	S3
SWH	0E	18	19.2	M14x1.0	22.5	36.0	4.0	12.5	17
SWH	1E	20	21.5	M16x1.0	30.5	47.0	4.5	14.5	19
SWH	2E	25	27.0	M20x1.0	28.0	52.4	5.0	18.5	24
SWH	3E	31	34.0	M24x1.0	33.0	64.2	6.0	22.5	30
SWH	4E	37	40.5	M30x1.0	44.5	70.0	6.5	28.5	36
SWH	5E	55	54.0	M45x1.5	47.0	81.0	9.0	42.5	–
SWH ¹⁾	6E	65	65.0	M55x2.0	12.0	76.0	10.0	–	–

P1 Panel cut-out (page 153)

Note: ¹⁾ with key (G). The 5E and 6E series are delivered with a round nut. See page 101 for the available plug and contact configurations and in order to ensure correct contact alignment.

L Series

L series connectors have been specifically designed for outdoor applications. This series offer superior polarization combining the stepped insert (half-moon) of the S/E series with the keying system of the K series.

They include an inner sleeve and two seals to prevent penetration of solids or liquids into the housing formed by the plug, free socket, fixed socket or coupler. All models of this series are watertight when mated to give a protection index of IP68 as per IEC 60529 standard (in mated condition) when correctly assembled to an appropriate cable (IP66 otherwise).

L series connectors have the same insulators as the S series and have the following main features:

- security of the Push-Pull latching system
- multipole types 2 to 10 contacts
- stepped insert (half-moon) fitted with male and female contacts
- high packing density for space savings
- keying system («G» key standard) for connector alignment
- watertight connection (IP 68/IP 66)
- solder, crimp or print (straight) contacts
- multiple key options to avoid cross mating of similar connectors
- 360° screening for full EMC shielding
- rugged housing for extreme working conditions.

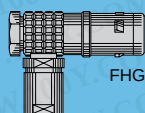
Metal housing models (page 86)

Fixed plug



FAG

Elbow plug

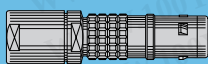


FHG

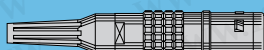
Straight plugs



FGG

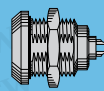


FGG

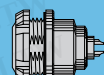


FGG

Fixed sockets

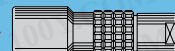


EGG

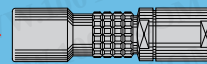


EEG

Free sockets



PHG



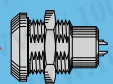
PHG



PHG

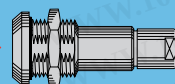
Vacuumtight model (page 89)

Fixed socket



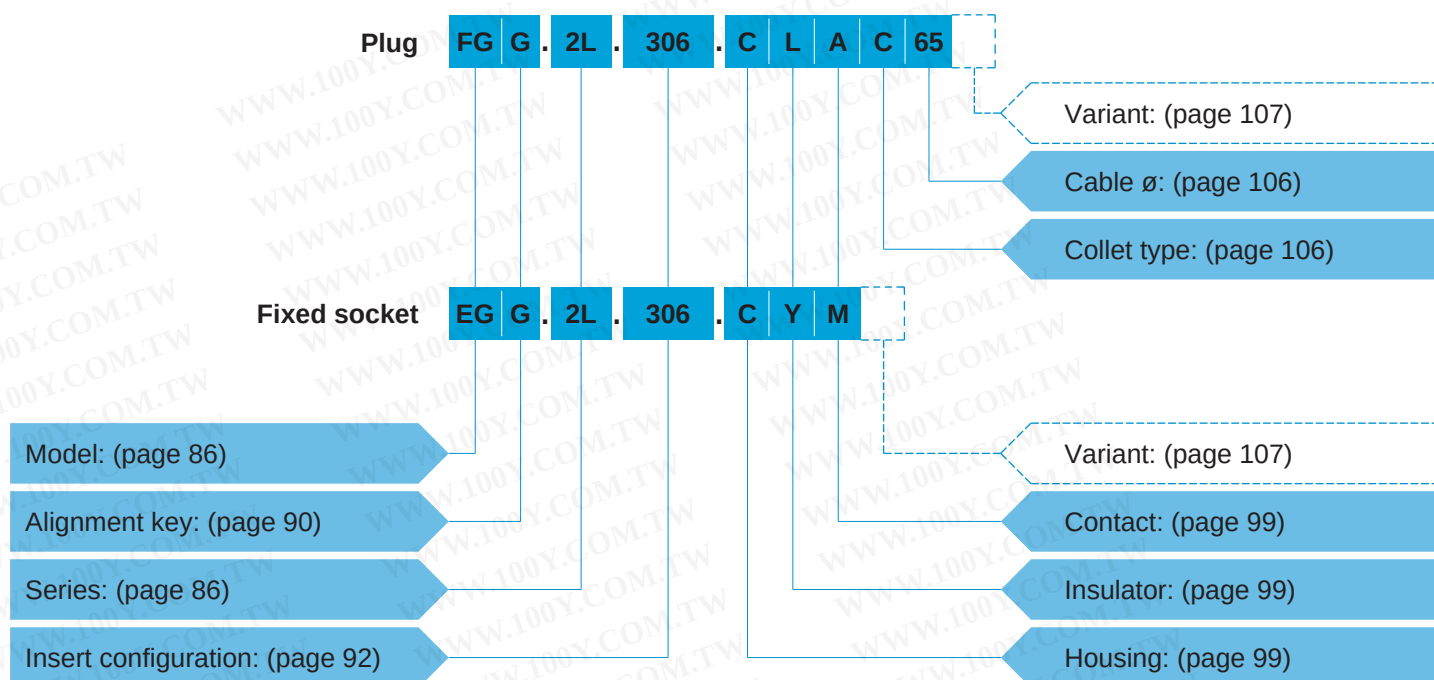
HGG

Fixed socket



PKG

Part Numbering System



Part Number Example

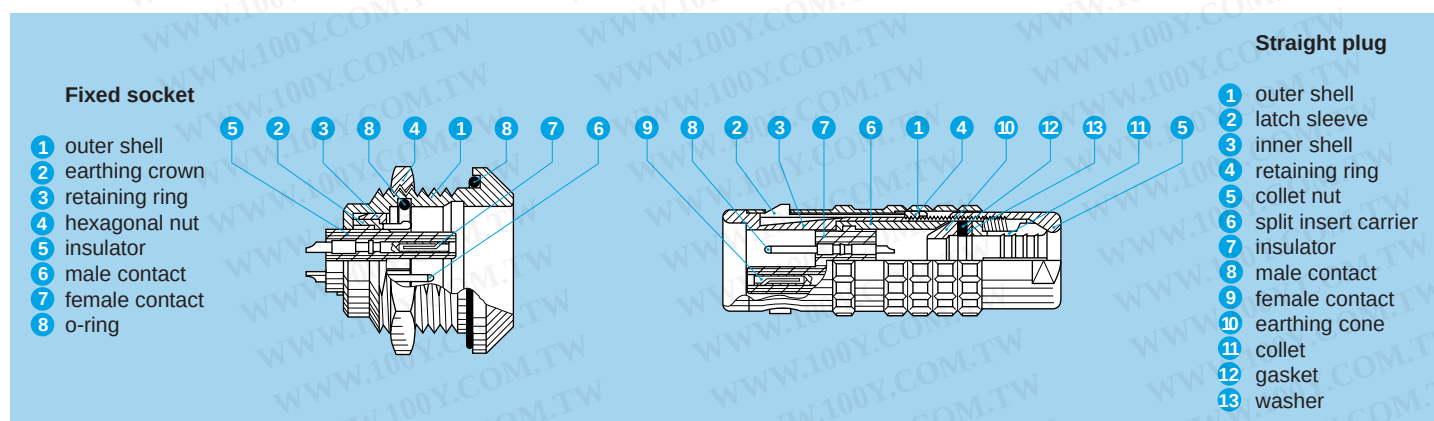
Straight plug with cable collet:

FGG.2L.306.CLAC65 = straight plug with key (G) and cable collet, 2L series, multipole type with 6 contacts, outer shell in chrome-plated brass, PEEK insulator, with 3 male and 3 female solder contacts, C type collet for 6.5 mm diameter cable.

Fixed socket:

EGG.2L.306.CYM = fixed socket, nut fixing, with key (G), 2L series, multipole type with 6 contacts, outer shell in chrome-plated brass, PEEK extended insulator, with 3 female and 3 male crimp contacts.

Part Section Showing Internal Components



Metal housing models

Technical Characteristics

Mechanical and Climatical

Characteristics	Value	Standard
Endurance	> 5000 cycles	IEC 60512-5 test 9a
Humidity	up to 95% at 60° C	
Temperature range ¹⁾	- 55° C, +200° C	
Resistance to vibrations	10-2000 Hz, 15 g	IEC 60512-4 test 6d
Shock resistance	100 g, 6 ms	IEC 60512-4 test 6c
Salt spray corrosion test	> 144h	IEC 60512-6 test 11f
Protection index (mated) ²⁾	IP 68/IP 66	IEC 60529
Climatical category	50/175/21	IEC 60068-1

Electrical

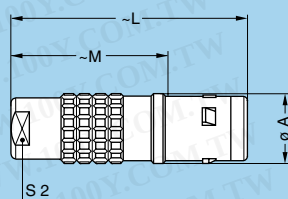
Characteristics	Value	Standard
Shielding efficiency	at 10 MHz	> 95 dB
	at 1 GHz	> 80 dB
		IEC 60169-1-3

Note:

The various tests have been carried out with FGG and EGG connector pairs, with chrome-plated brass shell, PEEK insulator and silicone O-ring. Detailed electrical characteristics, as well as materials and treatment are presented in the chapter Technical Characteristics on page 171.

¹⁾ minimum operating temperature is -20°C for sockets fitted with an FPM (Viton®) O-ring.

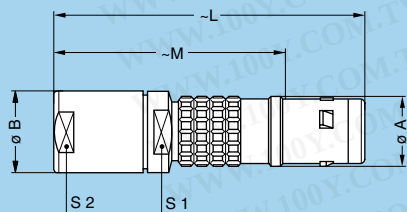
²⁾ IP68 achieved providing that the cable is perfectly circular and that assembly process ensures a high integrity seal.



FGG Straight plug, key (G) or keys (A to C and L), cable collet

Reference		Dimensions (mm)			
Model	Series	A	L	M	S2
FGG	0L	11	34	23.0	8
FGG	1L	13	42	28.0	9
FGG	2L	16	52	36.0	12

M1 Cable assembly (page 170)

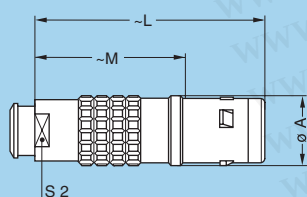
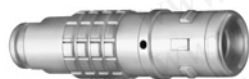


FGG Straight plug, key (G) or keys (A to C and L), cable collet and oversize cable collet ¹⁾

Reference		Dimensions (mm)					
Model	Series	A	B	L	M	S1	S2
FGG	1L	13	14.5	60	46	12	12
FGG	2L	16	17.0	68	52	15	15

M2 Cable assembly (page 170)

Note: ¹⁾ correspond to K type of collet, the fitting of oversize collets onto this model allows them to be fitted to the cables that can be accommodated by the next housing size up (see page 106).

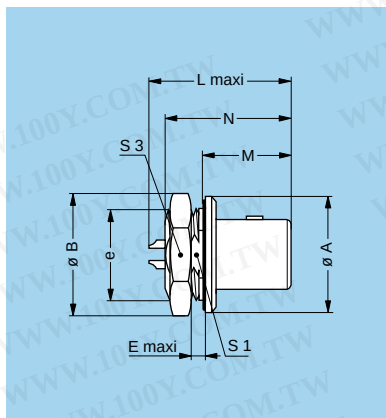


FGG Straight plug, key (G) or keys (A to C and L), cable collet and nut for fitting a bend relief ¹⁾

Reference		Dimensions (mm)			
Model	Series	A	L	M	S2
FGG	0L	11	34	23	7
FGG	1L	13	42	28	9
FGG	2L	16	52	36	12

M1 Cable assembly (page 170)

Note: ¹⁾ to order, add a «Z» at the end of the reference. The bend relief must be ordered separately (see page 141).

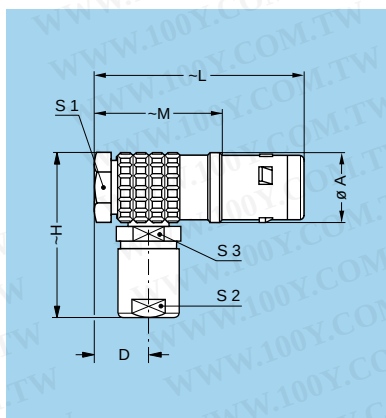


FAG Fixed plug, nut fixing, non-latching, key (G) or keys (A to C and L)

Reference		Dimensions (mm)								
Model	Series	A	B	e	E	L	M	N ¹⁾	S1	S3
FAG	2L	25	27.0	M20x1.0	4.5	28.2	18.0	28.3	18.5	24

P1 Panel cut-out (page 153)

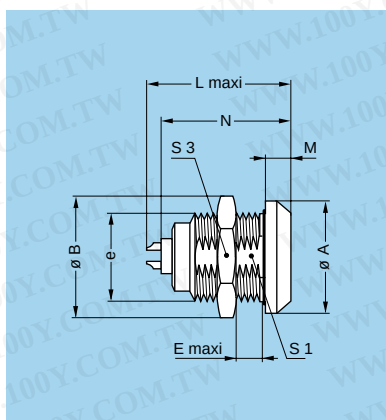
Note: ¹⁾ maximum length with crimp contacts.



FHG Elbow (90°) plug, key (G) or keys (A to C and L), cable collet

Reference		Dimensions (mm)							
Model	Series	A	D	H	L	M	S1	S2	S3
FHG	0L	11.5	7.6	27	36	25.0	10	8	8
FHG	1L	14.0	8.8	33	43	29.0	12	9	10
FHG	2L	17.5	10.5	40	51	35.0	15	12	13

M3 Cable assembly (page 170)

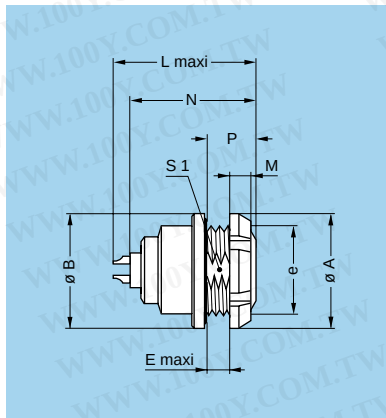


EGG Fixed socket, nut fixing, key (G) or keys (A to C and L)

Reference		Dimensions (mm)								
Model	Series	A	B	e	E	L	M	N ¹⁾	S1	S3
EGG	0L	18	19.2	M14x1.0	6	21.7	4.0	20.1	12.5	17
EGG	1L	20	21.5	M16x1.0	9	27.0	4.5	25.1	14.5	19
EGG	2L	25	27.0	M20x1.0	9	30.7	5.0	28.6	18.5	24

P1 Panel cut-out (page 153)

Note: ¹⁾ maximum length with crimp contacts.

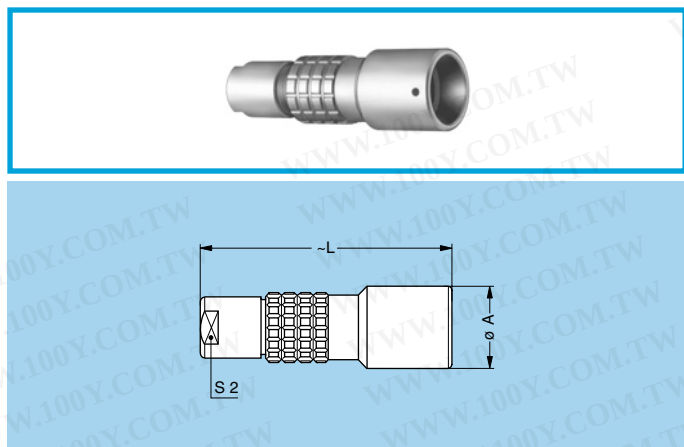


EEG Fixed socket, nut fixing, key (G) or keys (A to C and L) (back panel mounting)

Reference		Dimensions (mm)								
Model	Series	A	B	e	E	L	M	N ¹⁾	P	S1
EEG	0L	18.0	18	M14x1.0	3.4	21.7	3.5	20.1	7.0	12.5
EEG	1L	20.0	20	M16x1.0	6.2	27.0	3.5	25.1	10.0	14.5
EEG	2L	25.0	25	M20x1.0	5.0	30.7	3.5	28.6	10.0	18.5

P1 Panel cut-out (page 153)

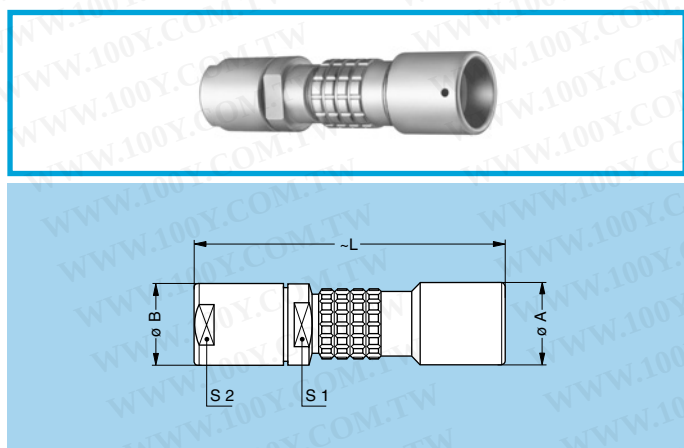
Note: ¹⁾ maximum length with crimp contacts.



PHG Free socket, key (G) or keys (A to C and L), cable collet

Reference		Dimensions (mm)		
Model	Series	A	L	S2
PHG	0L	13	34.0	8
PHG	1L	15	45.0	9
PHG	2L	19	54.0	12

M1 Cable assembly (page 170)

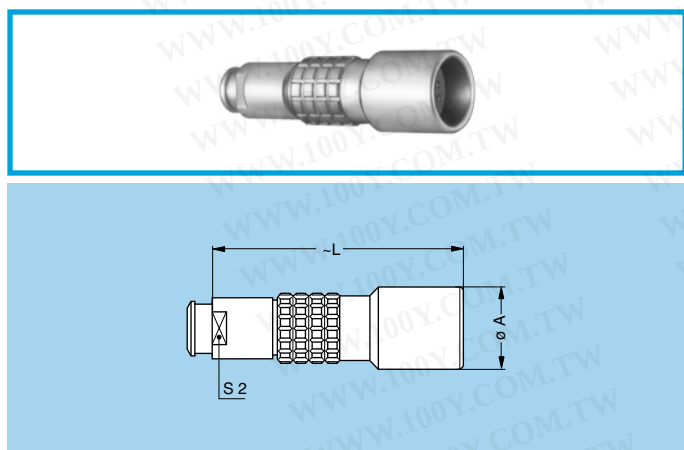


PHG Free socket, key (G) or keys (A to C and L), cable collet and oversize cable collet ¹⁾

Reference		Dimensions (mm)				
Model	Series	A	B	L	S1	S2
PHG	1L	15	14.5	63	12	12
PHG	2L	19	17.0	70	15	15

M2 Cable assembly (page 170)

Note: ¹⁾ correspond to K type of collet, the fitting of oversize collets onto this model allows them to be fitted to the cables that can be accommodated by the next housing size up (see page 106).

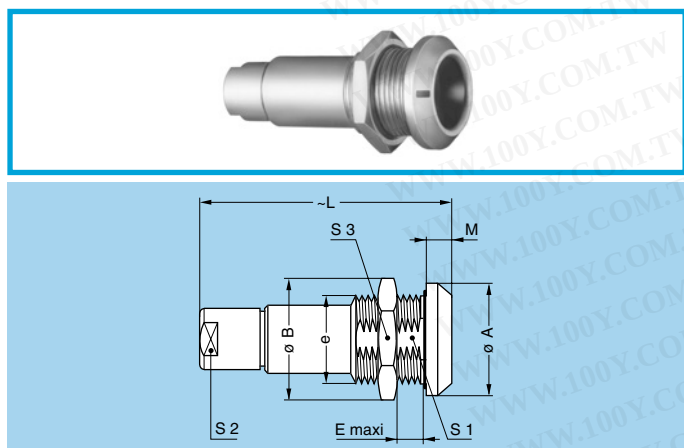


PHG Free socket, key (G) or keys (A to C and L), cable collet and nut for fitting a bend relief ¹⁾

Reference		Dimensions (mm)		
Model	Series	A	L	S2
PHG	0L	13	34.0	7
PHG	1L	15	45.0	9
PHG	2L	19	54.0	12

M1 Cable assembly (page 170)

Note: ¹⁾ to order, add a «Z» at the end of the reference. The bend relief must be ordered separately (see page 141).



PKG Fixed socket, nut fixing, key (G) or keys (A to C and L), cable collet

Reference		Dimensions (mm)								
Model	Series	A	B	e	E	L	M	S1	S2	S3
PKG	0L	18	19.2	M14x1.0	6	34.0	4.0	12.5	8	17
PKG	1L	20	21.5	M16x1.0	9	45.0	4.5	14.5	9	19
PKG	2L	25	27.0	M20x1.0	9	54.0	5.0	18.5	12	24

M1 Cable assembly (page 170)

P1 Panel cut-out (page 153)



Watertight or vacuumtight models

This socket model allow the device on which they are fitted to reach a protection index of IP68 as per IEC 60529. This model is also available in a vacuumtight version. It is identified by the letter «PV» at the end of the part number (certificate on request). Epoxy resin is used to seal this model.

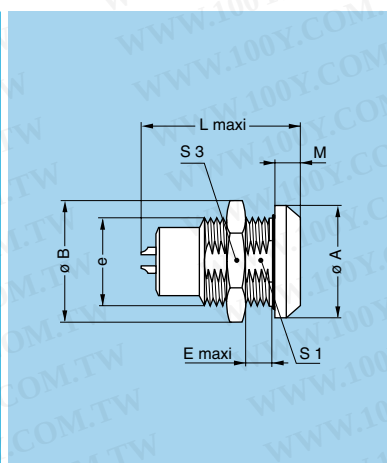
Technical Characteristics

Mechanical and Climatical

Characteristics	Value	Standard
Endurance	> 5000 cycles	IEC 60512-5 test 9a
Humidity	up to 95% at 60° C	
Temperature range (0L-1L)	- 20° C/+100° C	
Temperature range (2L)	- 20° C/+80° C	
Salt spray corrosion test	> 144h	IEC 60512-6 test 11f

Characteristics	Value	Standard
Climatical category	20/80/21	IEC 60068-1
Leakage rate (He)	< 10 ⁻⁷ mbar.l.s ⁻¹	IEC 60512-7 test 14b
Maximum operating pressure ¹⁾	0L	60 bars
	1L	60 bars
	2L	40 bars
		IEC 60512-7 test 14d

Note: ¹⁾ this value corresponds to the maximum allowed pressure difference for the assembled socket.



HGG Fixed socket, nut fixing, key (G) or keys (A to C and L), vacuumtight

Reference		Dimensions (mm)							
Model	Series	A	B	e	E	L	M	S1	S3
HGG	0L	18	19.2	M14x1.0	5.5	21.7	4.0	12.5	17
HGG	1L	20	21.5	M16x1.0	9.0	30.0	4.5	14.5	19
HGG	2L	25	27.0	M20x1.0	13.0	33.7	5.0	18.5	24

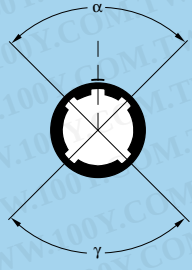
P1 Panel cut-out (page 153)



Alignment Key (L series)

Alignment Key and Polarized Keying System

L series connector model part numbers are composed of three letters. The LAST LETTER indicates the key position and the contact type (male or female).

Front view of a socket 	Reference	Nb of keys	Angles	Series			Contact type		Note
				0L	1L	2L	Plug	Socket	
	G	1	α	0°	0°	0°	male	female	●
	A	2		30°	30°	30°	male	female	●
	B	2		45°	45°	45°	male	female	○
	J	2	γ	105°	105°	105°	female	male	○
	L	2		75°	75°	75°	male	female	● ¹⁾

Note: ¹⁾ that contact type is not as for the K series.

- First choice alternative
- Special order alternative

Insert configuration (S, E and L series)

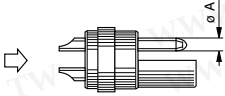
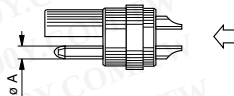
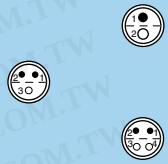
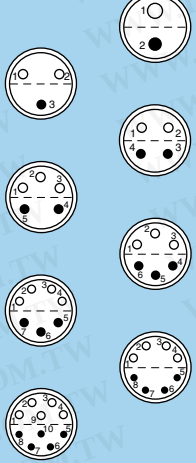
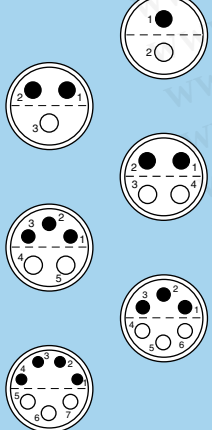
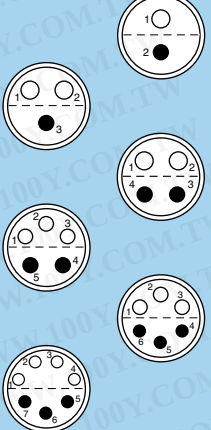
Unipole

	 Male solder contacts	 Female solder contacts	Reference	Series		ø A (mm)	Contact type		Test voltage (kV rms) ¹⁾	Test voltage (kV dc) ¹⁾	Rated current (A) ¹⁾
				Standard	Watertight		Solder	Crimp			
00			113	00	–	1.3	● ²⁾	●	0.8	1.2	8
0S 0E			116	0S	0E	1.6	● ²⁾	–	1.5	2.1	12
1S 1E			120	1S	1E	2.0	● ²⁾	–	1.7	2.4	18
			130	1S	1E	3.0	●	–	1.5	2.1	25
2S 2E			130	2S	2E	3.0	●	–	2.1	3.0	30
			140	2S	2E	4.0	●	–	1.7	2.4	40
3S 3E			140	3S	3E	4.0	●	–	2.3	3.3	43
			160	3S	3E	6.0	●	–	1.7	2.4	65
4S 4E			140	4S	–	4.0	●	–	3.0	4.2	46
			160	4S	4E	6.0	●	–	2.7	3.9	70
5S 5E			112	5S	5E	12.0	●	–	1.5	2.1	230

Note: ¹⁾ see calculation method, caution and suggested standard on page 178.

²⁾ also available with inversed contacts: plug = female, socket = male.

Multipole

				Reference	Series		Number of contacts	ø A (mm)	Contact type				Test voltage (kV rms) ^{1) 2)}	Test voltage (kV dc) ^{1) 2)}	Rated current (A) ¹⁾	
					Standard	Watertight			Solder	Crimp	Print (straight)	Print (elbow)				
																
		Male solder contacts		Female solder contacts												
0S 0E 0L					302	0S	0E	2	0.9	●	●	●	●	1.5	2.1	10 ³⁾
					303	0S	0E	3	0.7	●	○	●	●	1.0	1.5	7 ³⁾
					304	0S	0E	4	0.7	●	●	●	●	1.0	1.5	7 ³⁾
1S 1E 1L					302	1S	1E	2	1.3	●	●	●	●	1.2	1.8	15 ³⁾
					303	1S	1E	3	0.9	●	○	●	●	1.2	1.8	10 ³⁾
					304	1S	1E	4	0.9	●	●	●	●	1.2	1.8	10 ³⁾
					305	1S	1E	2 3	0.9 0.7	●	○	●	●	1.5 1.5	2.1 2.1	10 ³⁾ 7 ³⁾
					306	1S	1E	6	0.7	●	○	●	●	1.5	2.1	7 ³⁾
2S 2E 2L					302	2S	2E	2	1.6	●	○	○	○	1.7	2.4	20 ⁴⁾
					303	2S	2E	3	1.3	●	○	●	○	1.5	2.1	15 ⁴⁾
					304	2S	2E	4	1.3	●	○	●	●	1.7	2.4	15 ⁴⁾
					305	2S	2E	5	1.3	●	○	●	●	1.5	2.1	13 ⁴⁾
					306	2S	2E	6	1.3	●	● ⁵⁾	●	●	1.5	2.1	12
					307	2S	2E	3 4	1.3 0.9	●	○	●	●	0.8 0.8	1.2 1.2	12 ³⁾ 9 ³⁾
					308	2S	2E	8	0.9	●	○	●	●	0.8	1.2	9 ³⁾
					310	2S	2E	10	0.9	●	○	●	●	0.8	1.2	7 ³⁾
3S 3E					302	3S	3E	2	2.0	●	—	○	—	3.0	4.2	23
					303	3S	3E	3	2.0	●	—	○	—	1.5	2.1	20
					304	3S	3E	4	2.0	●	—	○	—	1.5	2.1	18
					305	3S	3E	2 3	2.0 1.3	●	—	○	—	1.5 1.5	2.1 2.1	18 14
					306	3S	3E	6	1.3	●	—	●	—	2.1	3.0	14
					307	3S	3E	7	1.3	●	—	●	—	1.0	1.5	12

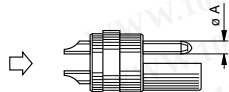
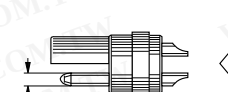
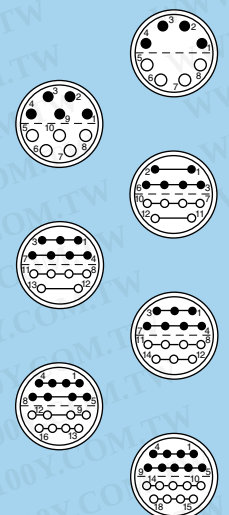
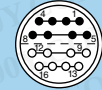
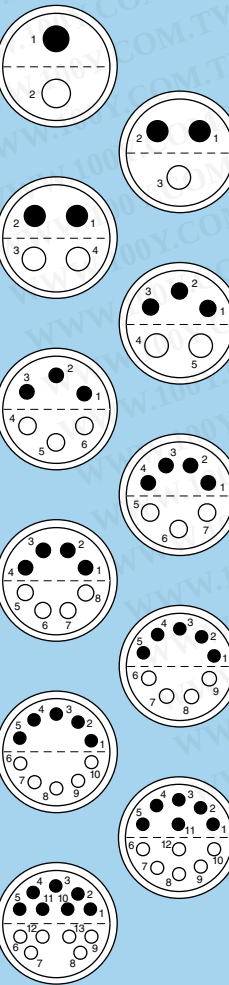
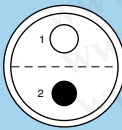
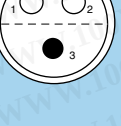
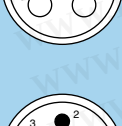
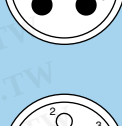
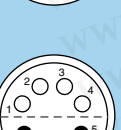
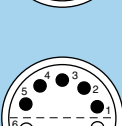
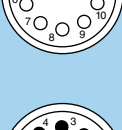
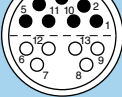
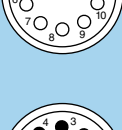
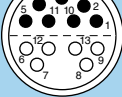
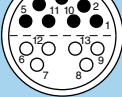
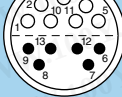
Note:

- 1) see calculation method, caution and suggested standard on page 178.
- 2) lowest measured value; contact to contact or contact to shell.
- 3) rated current = 6A for socket with elbow (90°) contacts for printed circuit.
- 4) rated current = 12A for socket with elbow (90°) contacts for printed circuit.
- 5) only for FFL model.

- First choice alternative
○ Special order alternative



Multipole

				Reference	Series		Number of contacts	ø A (mm)	Contact type				Test voltage (kV rms) ^(1) 2)	Test voltage (kV dc) ^(1) 2)	Rated current (A ⁽¹⁾)
					Standard	Watertight			Solder	Crimp	Print (straight)	Print (elbow)			
 Male solder contacts		 Female solder contacts													
			308	3S	3E	8	1.3	●	—	●	○	1.0	1.5	10	
			310	3S	3E	10	1.3	●	—	●	●	1.0	1.5	9	
			312	3S	3E	12	0.9	●	—	●	●	1.5	2.1	8	
			313	3S	3E	13	0.9	●	—	●	○	1.5	2.1	8	
			314	3S	3E	14	0.9	●	—	●	●	1.5	2.1	7	
			316	3S	3E	16	0.9	●	—	●	●	1.0	1.5	7	
			318	3S	3E	18	0.9	●	—	●	○	1.0	1.5	6	
			302	4S	4E	2	4.0	●	—	○	—	2.1	3.0	35	
			303	4S	4E	3	3.0	●	—	○	—	2.1	3.0	25	
			304	4S	4E	4	3.0	●	—	○	—	2.1	3.0	22	
			305	4S	4E	2 3	3.0 2.0	●	—	○	—	2.1 2.1	3.0 3.0	22 16	
			306	4S	4E	6	2.0	●	—	○	—	2.1	3.0	16	
			307	4S	4E	3 4	2.0 1.3	●	—	○	—	2.1 2.1	3.0 3.0	16 13	
			308	4S	4E	8	1.3	●	—	○	—	2.7	3.9	13	
			309	4S	4E	9	1.3	●	—	○	—	2.1	3.0	12	
			310	4S	4E	10	1.3	●	—	○	—	2.1	3.0	11	
			312	4S	4E	12	1.3	●	—	○	—	2.1	3.0	9	
			313	4S	—	13	1.3	●	—	○	—	2.1	3.0	9	

Note: ¹⁾ see calculation method, caution and suggested standard on page 178.
²⁾ lowest measured value; contact to contact or contact to shell.

● First choice alternative
 ○ Special order alternative

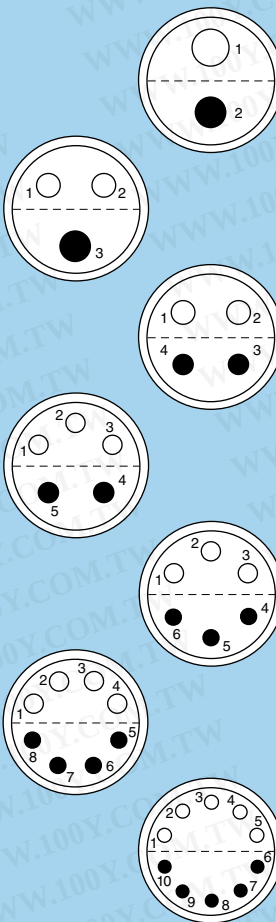
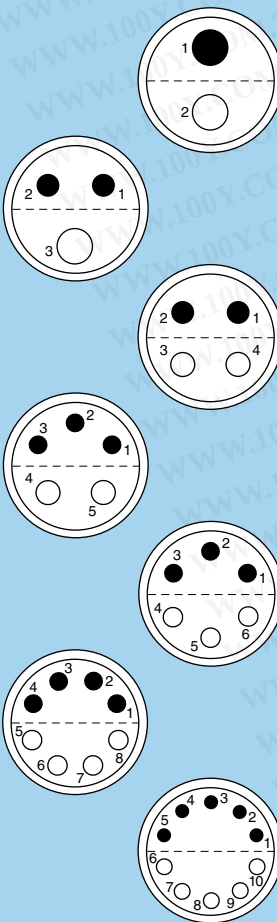
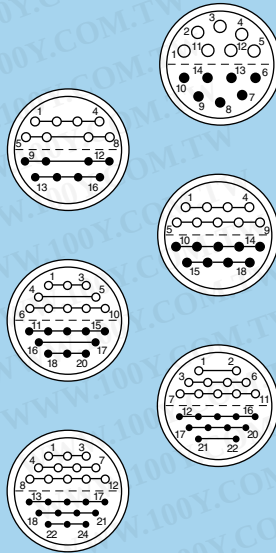
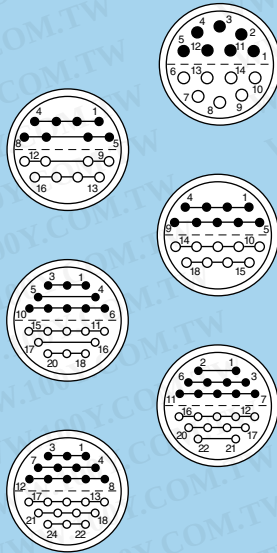
4S
4E



Ø A



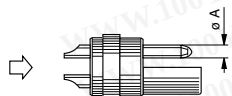
5S
5E



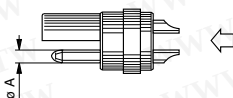
Note: 1) see calculation method, caution and suggested standard on page 178.
2) lowest measured value; contact to contact or contact to shell.



Multipole

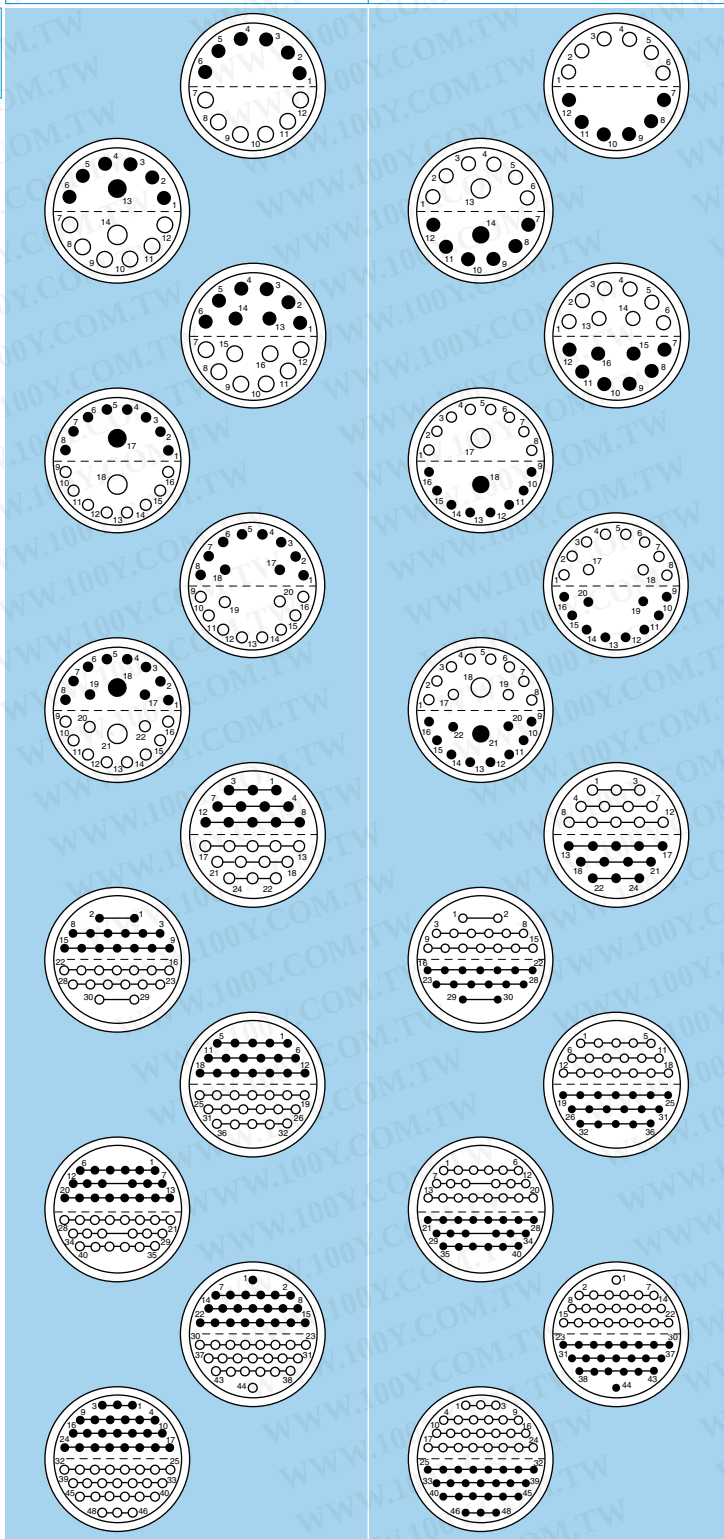


Male solder contacts



Female solder contacts

5S
5E



Reference	Series		Number of contacts	ø A (mm)	Contact type			Test voltage (kV rms) ^{1) 2)}	Test voltage (kV dc) ^{1) 2)}	Rated current (A) ¹⁾
	Standard	Watertight			Solder	Print (straight)	Print (elbow)			
312	5S	5E	12	2.0	●	—	—	2.1	3.0	18
314	5S	5E	2 12	3.0 2.0	●	—	—	1.8 1.8	2.4 2.4	20 15
316	5S	5E	16	2.0	●	—	—	1.8	2.4	15
318	5S	5E	2 16	3.0 1.6	●	—	—	1.8 1.8	2.4 2.4	18 11
320	5S	5E	20	1.6	●	—	—	1.8	2.4	11
322	5S	5E	2 20	3.0 1.6	●	—	—	1.8 1.8	2.4 2.4	16 9
324	5S	5E	24	1.6	●	—	—	2.7	3.9	9
330	5S	5E	30	1.3	●	—	—	1.8	2.4	8
336	5S	5E	36	1.3	●	—	—	1.8	2.4	7
340	5S	5E	40	1.3	●	—	—	1.2	1.8	7
344	5S	5E	44	1.3	●	—	—	1.2	1.8	6
348	5S	5E	48	1.3	●	—	—	1.2	1.8	6

Note: ¹⁾ see calculation method, caution and suggested standard on page 178.

²⁾ lowest measured value; contact to contact or contact to shell.

Multipole

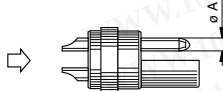
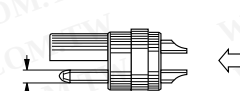
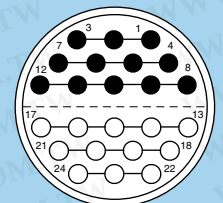
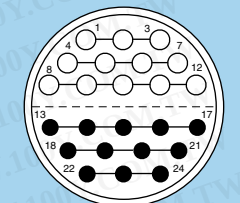
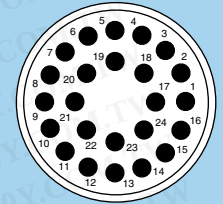
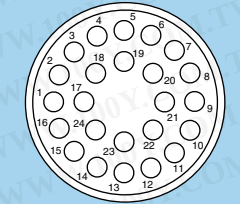
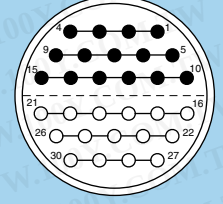
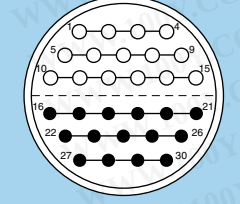
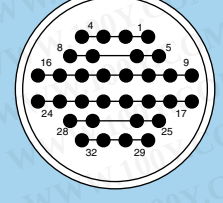
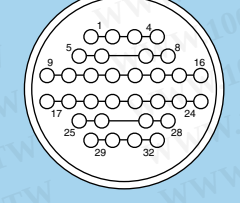
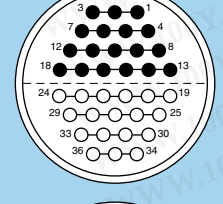
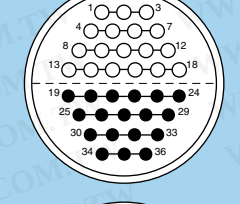
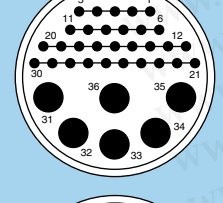
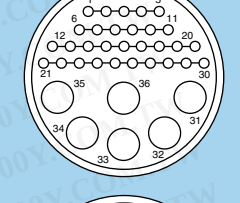
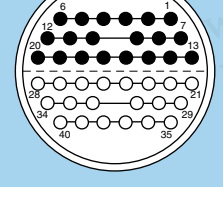
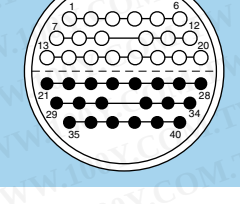
6S
6E

	 Male solder contacts	 Female solder contacts	Reference	Series		Number of contacts	ø A (mm)	Solder contacts	Test voltage (kV rms) ^{1) 2)}	Test voltage (kV dc) ^{1) 2)}	Rated current (A) ¹⁾
				Standard	Watertight						
			303	—	6E	3	6.0	●	3.0	4.2	50
			304	6S	6E	4	8.0	●	3.0	4.2	60
			312	6S	—	12	4.0	●	2.1	3.0	22
				—	6E	12	5.0				
			316	—	6E	16	3.0	●	1.5	2.1	14
			318	6S	—	18	4.0	●	1.2	1.8	16
			320	6S	—	20	3.0	●	1.5	2.1	14
			320	—	6E	20	3.0	●	1.5	2.1	14

Note: 1) see calculation method, caution and suggested standard on page 178.
2) lowest measured value; contact to contact or contact to shell.



Multipole

	 Male solder contacts	 Female solder contacts	Reference	Series		Number of contacts	ø A (mm)	Solder contacts	Test voltage (kV rms) ^{1) 2)}	Test voltage (kV dc) ^{1) 2)}	Rated current (A) ¹⁾
				Standard	Watertight						
6S 6E			324	6S	—	24	3.0	●	1.2	1.8	12
			324	—	6E	24	3.0	●	1.2	1.8	12
			330	6S	6E	30	2.0	●	2.1	3.0	10
			332	—	6E	32	2.0	●	1.5	2.1	10
			336	6S	—	36	2.0	●	1.5	2.1	8
			336	—	6E	30 6	1.3 5.0	●	1.5 1.5	2.1 2.1	4 22
			340	—	6E	40	2.0	●	1.5	2.1	8

Note: ¹⁾ see calculation method, caution and suggested standard on page 178.

²⁾ lowest measured value; contact to contact or contact to shell.

Multipole

6S
6E

	 Male solder contacts	 Female solder contacts	Reference	Series		Number of contacts	ø A (mm)	Solder contacts	Test voltage (kV rms) ^{1) 2)}	Test voltage (kV dc) ^{1) 2)}	Rated current (A) ¹⁾
				Standard	Watertight						
			348	6S	6E	48	2.0	●	1.5	2.1	7
			360	6S	6E	60	1.6	●	1.5	2.1	5
			362	—	6E	62	1.6	●	1.5	2.1	5
			364	6S	6E	64	1.3	●	1.2	1.8	4
			372	6S	6E	72	1.3	●	1.2	1.8	4
			106	—	6E	106	0.9	●	0.8	1.2	2
			106	6S	—	106	0.9	●	0.8	1.2	2

Note: 1) see calculation method, caution and suggested standard on page 178.

2) lowest measured value; contact to contact or contact to shell.

Housings (S, E and L series)

Ref.	Outer shell and collet nut		Latch sleeve + earthing crown		Other metallic components		Remarks	Note
	Material	Surf. treatment	Material	Surf. treatment	Material	Surf. treatment		
C	Brass	chrome	brass/bronze	nickel ²⁾	brass	nickel		●
D	Brass	gold-plated	brass/bronze	nickel ²⁾	brass	nickel		○
N	Brass	nickel	brass/bronze	nickel ²⁾	brass	nickel		○
K	Brass	black chrome	brass/bronze	nickel ²⁾	brass	nickel		●
S	Stainless steel	–	brass/bronze	nickel ²⁾	brass	nickel		○
T	Stainless steel	–	stainless steel	–	brass	nickel		○
U	Stainless steel	–	stainless steel	–	stainless steel	–		○
L	Aluminium alloy	anodized	brass/bronze	nickel ²⁾	brass	nickel	¹⁾	○
B	POM (black)	–	brass/bronze	nickel ²⁾	brass	nickel	Only for FFP, ERN and PCP (S series)	●
G	PEEK (natural)	–	brass/bronze	nickel ²⁾	brass	nickel	Only for FFP, ERN and PCP (S series)	●
P	PSU	–	brass/bronze	nickel ²⁾	brass	nickel	Only for FFL (S series) ¹⁾	●
R	PPSU	–	brass/bronze	nickel ²⁾	brass	nickel	Only for FFL (S series) ¹⁾	●
H	PPS/brass	–/nickel	brass/bronze	nickel ²⁾	brass	nickel	Only for EPL and EXP (S series)	●

Note: detailed characteristics of these materials and treatments are presented on page 171.

¹⁾ see «variant» for the colour.

²⁾ in the E and L series, the latch sleeve is chrome-plated.

● First choice alternative

○ Special order alternative

Insulators (S, E and L series)

Ref.	Material	Contact type	Remarks	Note
L	PEEK	Solder or print		●
Y	PEEK	Crimp		●
T	PTFE	Solder	only for unipole types	●
T	FEP	Solder	only for multipole types of the S or E series	○
V	PI	Solder	only for multipole types of the S or E series	○
N	PA6.6	Solder	material for 5S/5E and 6S/6E series multipole inserts	●

Note: detailed characteristics of these materials are presented on page 175.

● First choice alternative

○ Special order alternative

Contacts (S, E and L series)

Soldering characteristics

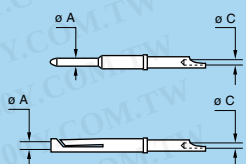
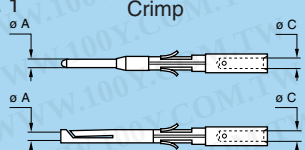
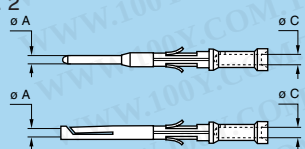
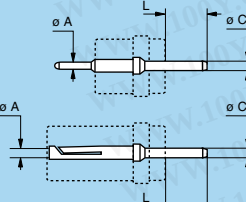
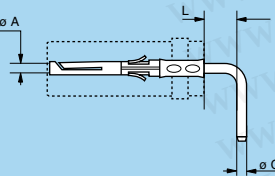
- no need to order specific tools, a simple soldering iron is sufficient
- ideal for very small and fragile conductors
- contacts with solder cups to allow the solder to flow

Crimping characteristics

- practical, quick contact fixing outside the insulator
- possible use at high temperature
- need to order specific tools
- no risk of heating the insulator during the conductor-contact fixing
- high tensile strength
- totally lead-free solution

Note: see page 176 for more information.

Contacts reference for plugs, free or fixed sockets

Contact type	Reference		Contact			Conductor						F _r ¹⁾ (N)	Notes
	Male	Female	ø A (mm)	ø C (mm)	Form per fig.	Solid		Stranded					
						AWG max.	Section max. (mm ²)	AWG		Section (mm ²)			
								min.	max.	min.	max.		
Solder 	A	L	0.7	0.60	—	24	0.25	—	26	—	0.14	—	●
			0.9	0.80	—	22	0.34	—	22 ²⁾	—	0.34	—	
			1.3	1.00	—	20	0.50	—	20 ²⁾	—	0.50	—	
			1.6	1.40	—	16	1.00	—	18	—	1.00	—	
			2.0	1.80	—	14	1.50	—	16	—	1.50	—	
			3.0	2.70	—	10	4.00	—	12	—	4.00	—	
			4.0	3.70	—	10	6.00	—	10	—	6.00	—	
			5.0	5.20	—	—	—	—	8	—	10.00	—	
			6.0	5.20	—	—	—	—	8	—	10.00	—	
			8.0	7.00	—	—	—	—	4	—	21.00	—	
			12.0	11.50	—	—	—	—	0	—	50.00	—	
Crimp fig. 1  fig. 2 	C	M	0.7	0.80	1	—	—	26	22 ²⁾	0.140	0.34	22	●
	B	P		0.45	2	—	—	32	28	0.035	0.09	30	○
	C	M	0.9	1.10	1	—	—	24	20	0.250	0.50		●
	B	P		0.80	2	—	—	26	22 ²⁾	0.140	0.34		○
	G	U	1.3	0.45	2	—	—	32	28	0.035	0.09	40	○
	C	M		1.40	1	—	—	20	18	0.500	1.00		●
	B	P		1.10	2	—	—	24	20	0.250	0.50		○
	G	U		0.80	2	—	—	26	22 ²⁾	0.140	0.34		○
	C	M	1.6	1.90	1	—	—	18	14 ²⁾	1.000	1.50	50	●
	B	P		1.40	2	—	—	22	18	0.340	1.00		○
	C	M	2.0	2.40	1	—	—	16	12 ²⁾	1.500	2.50	65	●
	B	P		1.90	2	—	—	18	14	1.000	1.50		○
Print 	D	N	L dimensions and C are detailed in the section on PCB drilling pattern. See page 159.										●
Print (elbow) 	V	V	L dimensions and C are detailed in the section on PCB drilling pattern. See page 160.										●

Note: 1) contact retention force in the insulator (according to IEC 60512-8 test 15 a).

2) for a given AWG, the diameter of some stranded conductor designs is larger than the solder cup diameter.
Make sure that the maximum conductor diameter is smaller than ø C.

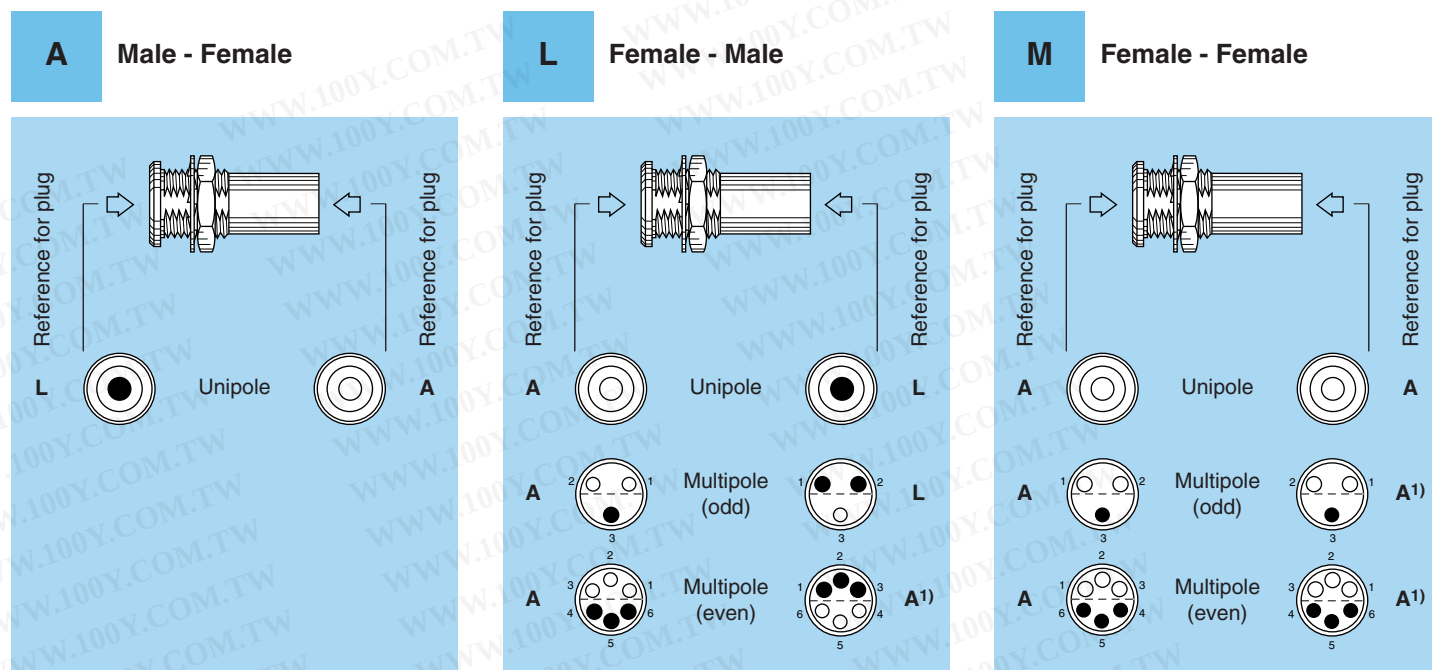
- First choice alternative
- Special order alternative

Contacts reference for coupler and plug with socket

Ref.	Contact type	Remarks
A	Male - Female	contact configuration is explained on page 101
L	Female - Male	contact configuration is explained on page 101
M	Female - Female	contact configuration is explained on page 101
F	Female - Female - Male	for the FTA model of the S series



Contacts reference for fixed and free couplers RMA, RAD and SWH



Use of plugs for mating with RAD, RMA and SWH couplers

Unipole type:

- Reference M for coupling two identical plugs fitted with male contact (contact reference A).
- Reference L for coupling a plug fitted with male contacts (contact reference A) at the flange end for RAD and SWH and an inverted plug fitted with female contacts (contact reference L) at the other end.
- Reference A for the inverted version of code L.

Multipole type:

- Reference L for coupling a standard plug (contact reference A) at the flange end for RAD and SWH and an inverted plug (contact reference as indicated in the above table) at the other end.
- Reference M for coupling two standard plugs (contact type A). Only available for RAD and RMA models.

Note: ¹⁾ this connector combination does not allow for contact numbering. One of the plugs has to be cable mounted in a way to ensure correct signal continuity.

Collets (S, E and L series)

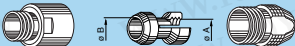
C, K and L type collets for S series

C type



K type

oversize
cable collet



L type



Reference		Collet ø		Cable ø		Notes
Type	Code	ø A	ø B	max.	min.	
00	C 17	1.7	1.5	1.7	1.3	NEW
	C 22	2.2	—	2.2	> 1.7	NEW
	C 27	2.7	—	2.7	> 2.2	NEW
	C 31	3.1	2.7	3.1	> 2.7	NEW
	K 37	3.7	—	3.6	3.0	
	K 42	4.2	3.7	4.4	> 3.7	NEW
	L 27	2.7	—	2.6	2.2	
0S	L 31	3.1	—	3.0	2.6	
	C 22	2.2	—	2.1	1.7	
	C 32	3.2	—	3.2	> 2.2	NEW
	C 37	3.7	—	3.6	3.0	
	C 44	4.4	3.7	4.4	> 3.7	NEW
	K 47	4.7	—	4.6	3.8	
	K 52	5.2	—	5.2	> 4.2	NEW
	K 62	6.2	5.2	6.2	> 5.2	NEW
	K 66	6.6	5.4	6.5	5.9	1)
	K 68	6.8	—	6.7	6.0	1)
	L 22	2.2	—	2.2	1.3	NEW
	L 32	3.2	—	3.2	> 2.2	NEW
	L 37	3.7	—	3.7	> 3.2	NEW
	L 44	4.4	—	4.3	3.5	1)
	L 48	4.8	—	4.8	4.4	1)

1S

Reference		Collet ø		Cable ø		Notes
Type	Code	ø A	ø B	max.	min.	
C	22	2.2	—	2.1	1.7	
C	32	3.2	—	3.2	> 2.2	NEW
C	42	4.2	—	4.2	> 3.2	NEW
C	52	5.2	—	5.2	> 4.2	NEW
C	62	6.2	5.2	6.1	5.3	
C	68	6.8	—	6.7	6.0	1)
K	72	7.2	—	7.2	> 6.2	NEW
K	77	7.7	6.7	7.5	7.1	
K	82	8.2	6.7	8.0	7.6	
K	87	8.7	6.7	8.5	8.1	
L	22	2.2	—	2.2	1.2	NEW
L	32	3.2	—	3.1	2.6	
L	42	4.2	—	4.2	> 3.2	NEW
L	52	5.2	—	5.2	> 4.2	NEW
L	62	6.2	—	6.2	> 5.2	NEW
L	66	6.6	—	6.5	5.9	1)

Note:

¹⁾ these collets cannot be used for connectors models with nut for fitting a bend relief.

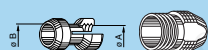
²⁾ these collets are used for the FLA model.

All dimensions are in millimetres.



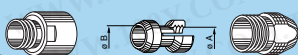
C, K and L type collets for S series

C type



K type

oversize
cable collet



L type



Reference		Collet ø		Cable ø		Notes
Type	Code	ø A	ø B	max.	min.	
2S	C 27	2.7	—	2.5	1.7	
	C 32	3.2	—	3.0	2.5	
	C 42	4.2	—	4.2	> 3.2	NEW
	C 52	5.2	—	5.2	> 4.2	NEW
	C 62	6.2	—	6.2	> 5.2	NEW
	C 72	7.2	6.7	7.2	> 6.2	NEW
	C 82	8.2	6.7	8.0	7.6	
	C 87	8.7	6.7	8.5	8.1	
	K 97	9.7	8.7	9.7	> 8.7	NEW
	K 10	10.2	8.7	10.0	9.6	
	K 11	10.7	9.0	10.5	10.1	
	L 32	3.2	—	3.2	2.5	NEW
	L 42	4.2	—	4.2	> 3.2	NEW
	L 52	5.2	—	5.2	> 4.2	NEW
3S	L 62	6.2	—	6.2	> 5.2	NEW
	L 72	7.2	—	7.2	> 6.2	NEW
	L 82	8.2	—	8.2	> 7.2	NEW
	L 87	8.7	—	8.5	8.1	1)
	C 42	4.2	—	4.2	2.7	NEW
	C 57	5.7	—	5.7	> 4.2	NEW
	C 72	7.2	—	7.0	6.1	
	C 87	8.7	—	8.7	> 7.2	NEW
	C 97	9.7	8.7	9.7	> 8.7	NEW
	C 11	10.7	9.0	10.5	10.1	
	K 12	12.2	—	12.0	11.1	
	K 13	13.2	12.2	13.0	12.1	
	L 42	4.2	—	4.2	2.7	NEW
	L 57	5.7	—	5.7	> 4.2	NEW
	L 72	7.2	—	7.0	6.1	
	L 87	8.7	—	8.7	> 7.2	NEW
	L 97	9.7	—	9.5	9.1	
	L 11	10.7	—	10.7	> 9.7	NEW ¹⁾

4S

Reference		Collet ø		Cable ø		Notes
Type	Code	ø A	ø B	max.	min.	
4S	C 52	5.2	—	5.0	4.1	
	C 62	6.2	—	6.0	5.1	
	C 72	7.2	—	7.0	6.1	
	C 82	8.2	—	8.0	7.1	
	C 92	9.2	—	9.0	8.1	
	C 10	10.2	—	10.0	9.1	
	C 11	11.2	—	11.0	10.1	
	C 12	12.2	—	12.0	11.1	
	C 13	13.2	12.2	13.0	12.6	
	K 14	14.2	—	14.0	13.1	1)
	K 15	15.2	—	15.0	14.1	1)
	K 16	16.2	—	16.0	15.1	1)
	K 17	17.2	—	17.0	16.1	1)
	K 18	18.2	—	18.0	17.1	1)
	K 19	19.2	—	19.0	18.1	1)
	K 20	20.2	19.7	20.0	19.1	1)
	K 21	21.2	19.7	21.0	20.1	1)
	K 22	22.2	19.7	22.0	21.1	1)
	L 52	5.2	—	5.0	4.1	
	L 62	6.2	—	6.0	5.1	
	L 72	7.2	—	7.0	6.1	
	L 82	8.2	—	8.0	7.1	
	L 92	9.2	—	9.0	8.1	
	L 10	10.2	—	10.0	9.1	
	L 11	11.2	—	11.0	10.1	
	L 12	12.2	—	12.0	11.1	
	L 13	13.2	—	13.0	12.6	

Note:

¹⁾ these collets cannot be used for connectors models with nut for fitting a bend relief.
All dimensions are in millimetres.

C, K and L type collets for S series

C type



K type

oversize
cable collet



L type



5S

Reference		Collet ø		Cable ø	
Type	Code	ø A	ø B	max.	min.
C	72	7.2	—	7.0	6.1
C	82	8.2	—	8.0	7.1
C	92	9.2	—	9.0	8.1
C	10	10.2	—	10.0	9.1
C	11	11.2	—	11.0	10.1
C	12	12.2	—	12.0	11.1
C	13	13.2	—	13.0	12.1
C	14	14.2	—	14.0	13.1
C	15	15.2	—	15.0	14.1
C	16	16.2	—	16.0	15.1
C	17	17.2	—	17.0	16.1
C	18	18.2	—	18.0	17.1
C	19	19.2	—	19.0	18.1
C	20	20.2	19.7	20.0	19.1
C	21	21.2	19.7	21.0	20.1
C	22	22.2	19.7	22.0	21.1
K	23	23.2	—	23.0	22.1
K	24	24.2	—	24.0	23.1
K	25	25.2	—	25.0	24.1
K	26	26.2	—	26.0	25.1
K	27	27.2	—	27.0	26.1
K	28	28.2	27.2	28.0	27.1
K	29	29.2	27.2	29.0	28.1
K	30	30.2	27.2	30.0	29.1
L	92	9.2	—	9.0	8.1
L	10	10.2	—	10.0	9.1
L	11	11.2	—	11.0	10.1
L	12	12.2	—	12.0	11.1
L	13	13.2	—	13.0	12.1
L	14	14.2	—	14.0	13.1
L	15	15.2	—	15.0	14.1
L	16	16.2	—	16.0	15.1
L	17	17.2	—	17.0	16.1
L	18	18.2	—	18.0	17.1
L	19	19.2	—	19.0	18.1
L	20	20.2	—	20.0	19.1
L	21	21.2	—	21.0	20.1

6S

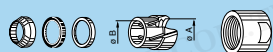
Reference		Collet ø		Cable ø	
Type	Code	ø A	ø B	max.	min.
C	12	12.2	—	12.0	11.1
C	13	13.2	—	13.0	12.1
C	14	14.2	—	14.0	13.1
C	15	15.2	—	15.0	14.1
C	16	16.2	—	16.0	15.1
C	17	17.2	—	17.0	16.1
C	18	18.2	—	18.0	17.1
C	19	19.2	—	19.0	18.1
C	20	20.2	—	20.0	19.1
C	21	21.2	—	21.0	20.1
C	22	22.2	—	22.0	21.1
C	23	23.2	—	23.0	22.1
C	24	24.2	—	24.0	23.1
C	25	25.2	—	25.0	24.1
C	26	26.2	—	26.0	25.1
C	27	27.2	—	27.0	26.1
C	28	28.2	27.2	28.0	27.1
C	29	29.2	27.2	29.0	28.1
C	30	30.2	27.2	30.0	29.1
L	12	12.2	—	12.0	11.1
L	13	13.2	—	13.0	12.1
L	14	14.2	—	14.0	13.1
L	15	15.2	—	15.0	14.1
L	16	16.2	—	16.0	15.1
L	17	17.2	—	17.0	16.1
L	18	18.2	—	18.0	17.1
L	19	19.2	—	19.0	18.1
L	20	20.2	—	20.0	19.1
L	21	21.2	—	21.0	20.1
L	22	22.2	—	22.0	21.1
L	23	23.2	—	23.0	22.1
L	24	24.2	—	24.0	23.1
L	25	25.2	—	25.0	24.1
L	26	26.2	—	26.0	25.1
L	27	27.2	—	27.0	26.1
L	28	28.2	—	28.0	27.1
L	29	29.2	—	29.0	28.1
L	30	30.2	—	30.0	29.1

Note: the 5S.112 is only available with L type of collet
All dimensions are in millimetres.



C and K type collets for E series

C type



K type

oversize
cable collet



	Reference		Collet ø		Cable ø	
	Type	Code	ø A	ø B	max.	min.
0E	C	10	1.6	—	1.2	1.0
	C	15	1.6	—	1.5	1.3
	C	20	2.1	—	2.0	1.6
	C	25	3.1	—	2.5	2.1
	C	30	3.1	—	3.0	2.6
	C	35	4.2	4.2	3.5	3.1
	C	40	4.2	4.2	4.0	3.6
	C	45	5.2	5.2	4.5	4.1
	C	50	5.2	5.2	5.0	4.6
1E	C	15	1.6	—	1.5	1.3
	C	20	2.2	—	2.0	1.6
	C	25	3.2	—	2.5	2.1
	C	30	3.2	—	3.0	2.6
	C	35	4.2	—	3.5	3.1
	C	40	4.2	—	4.0	3.6
	C	45	5.2	—	4.5	4.1
	C	50	5.2	—	5.0	4.6
	C	55	6.2	6.2	5.5	5.1
	C	60	6.2	6.2	6.0	5.6
	C	65	7.2	6.7	6.5	6.1
	K	70	7.2	—	7.0	6.6
	K	75	8.2	8.2	7.5	7.1
	K	80	8.2	8.2	8.0	7.6
	K	85	9.2	8.6	8.5	8.1
2E	C	15	2.2	—	1.5	1.3
	C	20	2.2	—	2.0	1.6
	C	25	3.2	—	2.5	2.1
	C	30	3.2	—	3.0	2.6
	C	35	4.2	—	3.5	3.1
	C	40	4.2	—	4.0	3.6
	C	45	5.2	—	4.5	4.1
	C	50	5.2	—	5.0	4.6
	C	55	6.2	—	5.5	5.1
	C	60	6.2	—	6.0	5.6
	C	65	7.2	—	6.5	6.1
	C	70	7.2	—	7.0	6.6
	C	75	8.2	8.2	7.5	7.1
	C	80	8.2	8.2	8.0	7.6
	C	85	9.2	8.6	8.5	8.1
	K	90	9.2	—	9.0	8.6
	K	95	10.2	10.2	9.5	9.1
	K	10	10.2	10.2	10.0	9.6
	K	11	11.2	10.6	10.5	10.1

Note: all dimensions are in millimetres.

	Reference		Collet ø		Cable ø	
	Type	Code	ø A	ø B	max.	min.
3E	C	30	3.2	—	3.0	2.6
	C	35	4.2	—	3.5	3.1
	C	40	4.2	—	4.0	3.6
	C	45	5.2	—	4.5	4.1
	C	50	5.2	—	5.0	4.6
	C	55	6.2	—	5.5	5.1
	C	60	6.2	—	6.0	5.6
	C	65	7.2	—	6.5	6.1
	C	70	7.2	—	7.0	6.6
	C	75	8.2	—	7.5	7.1
	C	80	8.2	—	8.0	7.6
	C	85	9.2	—	8.5	8.1
	C	90	9.2	—	9.0	8.6
	C	95	10.2	10.2	9.5	9.1
	C	10	10.2	10.2	10.0	9.6
4E	C	11	11.2	10.6	10.5	10.1
	K	11	12.3	—	12.0	10.6
	K	12	13.8	13.8	12.8	12.1
	K	13	13.8	13.8	13.5	12.9
	K	14	15.3	15.3	14.0	13.6
	K	15	15.3	15.3	15.0	14.1
	C	50	6.3	—	5.0	4.8
	C	55	6.3	—	5.5	5.1
	C	60	6.3	—	6.0	5.6
	C	65	7.3	—	6.5	6.1
	C	70	7.3	—	7.0	6.6
	C	75	8.3	—	7.5	7.1
	C	80	8.3	—	8.0	7.6
	C	85	9.3	—	8.5	8.1
	C	90	9.3	—	9.0	8.6
	C	95	10.8	—	9.5	9.1
	C	10	10.8	—	10.5	9.6
	C	11	12.3	—	12.0	10.6
	C	12	13.8	13.8	12.8	12.1
	C	13	13.8	13.8	13.5	12.9
	C	14	15.3	15.3	14.0	13.6
	C	15	15.3	15.3	15.0	14.1
	K	16	17.8	—	16.5	15.6
	K	17	17.8	—	17.5	16.6
	K	18	19.8	—	18.5	17.6
	K	19	19.8	—	19.5	18.6
	K	20	21.8	—	20.5	19.6
	K	21	21.8	—	21.5	20.6
	K	22	23.8	23.8	22.5	21.6
	K	23	23.8	23.8	23.5	22.6

C and K type collets for E series

C type



K type

oversize
cable collet



Reference		Collet ø		Cable ø	
Type	Code	ø A	ø B	max.	min.
C	10	11.8	—	10.5	9.6
C	11	11.8	—	11.5	10.6
C	12	13.8	—	12.5	11.6
C	13	13.8	—	13.5	12.6
C	14	15.8	—	14.5	13.6
C	15	15.8	—	15.5	14.6
C	16	17.8	—	16.5	15.6
C	17	17.8	—	17.5	16.6
C	18	19.8	—	18.5	17.6
C	19	19.8	—	19.5	18.6
C	20	21.8	—	20.5	19.6
C	21	21.8	—	21.5	20.6
C	22	23.8	23.8	22.5	21.6
C	23	23.8	23.8	23.5	22.6

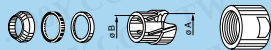
5E

Reference		Collet ø		Cable ø	
Type	Code	ø A	ø B	max.	min.
C	14	14.2	—	14.0	13.0
C	15	15.2	—	15.0	14.1
C	16	15.7	—	15.5	14.6
C	17	16.7	—	16.5	15.6
C	18	18.2	—	18.0	17.1
C	21	23.2	—	21.5	20.6
C	22	23.2	—	22.0	21.1
C	23	23.2	—	23.0	22.1
C	27	27.2	—	27.0	26.1
L	30	30.2	—	30.0	29.5

Note: all dimensions are in millimetres.

C and K type collets for L series

C type



K type

oversize
cable collet



Reference		Collet ø		Cable ø	
Type	Code	ø A	ø B	max.	min.
C	10	1.6	—	1.2	1.0
C	15	1.6	—	1.5	1.3
C	20	2.1	—	2.0	1.6
C	25	3.1	—	2.5	2.1
C	30	3.1	—	3.0	2.6
C	35	4.2	4.2	3.5	3.1
C	40	4.2	4.2	4.0	3.6
C	45	5.2	5.2	4.5	4.1
C	50	5.2	5.2	5.0	4.6
C	15	1.6	—	1.5	1.3
C	20	2.2	—	2.0	1.6
C	25	3.2	—	2.5	2.1
C	30	3.2	—	3.0	2.6
C	35	4.2	—	3.5	3.1
C	40	4.2	—	4.0	3.6
C	45	5.2	—	4.5	4.1
C	50	5.2	—	5.0	4.6
C	55	6.2	6.2	5.5	5.1
C	60	6.2	6.2	6.0	5.6
C	65	7.2	6.7	6.5	6.1
K	70	7.2	—	7.0	6.6
K	75	8.2	8.2	7.5	7.1
K	80	8.2	8.2	8.0	7.6
K	85	9.2	8.6	8.5	8.1

0L

1L

2L

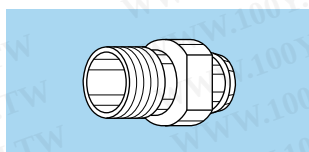
Reference		Collet ø		Cable ø	
Type	Code	ø A	ø B	max.	min.
C	15	2.2	—	1.5	1.3
C	20	2.2	—	2.0	1.6
C	25	3.2	—	2.5	2.1
C	30	3.2	—	3.0	2.6
C	35	4.2	—	3.5	3.1
C	40	4.2	—	4.0	3.6
C	45	5.2	—	4.5	4.1
C	50	5.2	—	5.0	4.6
C	55	6.2	—	5.5	5.1
C	60	6.2	—	6.0	5.6
C	65	7.2	—	6.5	6.1
C	70	7.2	—	7.0	6.6
C	75	8.2	8.2	7.5	7.1
C	80	8.2	8.2	8.0	7.6
C	85	9.2	8.6	8.5	8.1
K	90	9.2	—	9.0	8.6
K	95	10.2	10.2	9.5	9.1
K	10	10.2	10.2	10.0	9.6
K	11	11.2	10.6	10.5	10.1

Note: all dimensions are in millimetres.

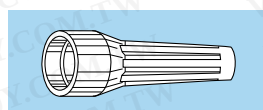


Variant (S, E and L series)

Bend relief for S series models with collet

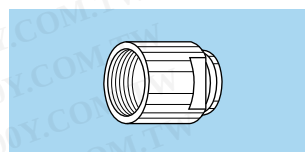


Need to be ordered

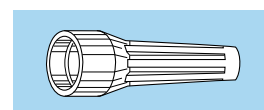


	Ref.	Collet		Need to be ordered separately (see pages 141 and 142)
		Type	Code	
00	Z	C	15 to 31	GMA.00.0●●.D●
		K	37 to 42	GMA.0B.0●●.D●
		L	17 to 31	GMA.00.0●●.D●
0S	Z	C	27 to 42	GMA.0B.0●●.D●
		K	47 to 62	GMA.1B.0●●.D●
		L	27 to 42	GMA.0B.0●●.D●
1S	Z	C	27 to 62	GMA.1B.0●●.D●
		K	72 to 82	GMA.2B.0●●.D●
		L	27 to 62	GMA.1B.0●●.D●
2S	Z	C	42 to 82	GMA.2B.0●●.D●
		K	92 to 10	GMA.3B.0●●.D●
		L	42 to 82	GMA.2B.0●●.D●
3S	Z	C	52 to 10	GMA.3B.0●●.D●
		K	12 to 13	GMA.4B.0●●.D●
		L	52 to 10	GMA.3B.0●●.D●
4S	Z	C	82 to 13	GMA.4B.0●●.D●
		L	82 to 13	GMA.4B.0●●.D●

Bend relief for E and L series models with collet



Need to be ordered



	Ref.	Collet		Need to be ordered separately (see pages 141 and 142)
		Type	Code	
0E 0L	Z	C	10 to 50	GMA.0B.●●●.●●
1E 1L	Z	C	15 to 65	GMA.1B.●●●.●●
		K	70 to 85	GMA.2B.●●●.●●
2E 2L	Z	C	15 to 85	GMA.2B.●●●.●●
		K	90 to 10	GMA.3B.●●●.●●
3E	Z	C	30 to 10	GMA.3B.●●●.●●
		K	11 to 15	GMA.4B.●●●.●●
4E	Z	C	50 to 15	GMA.4B.●●●.●●

Note: All dimensions are in millimetres.

Colour of connectors shell made of plastic material and aluminium alloys

Reference	Colour	Plastic shell			Aluminium alloys	
		PSU	PPSU	PA.6	Anodized colour	Anodized colour for bend relief collet nut
A	blue			●	●	
B	white	●		●		
G	grey	●		●		
J	yellow			●	●	
M	brown			●		
N	black			●	●	
R	red			●	●	
S	orange			●		
T	natural				●	
V	green			●	●	
L	black					●
X	natural					●
F	cream		●			

Note: other anodizing colours are available for connectors with collet nut for bend relief. Please consult us.

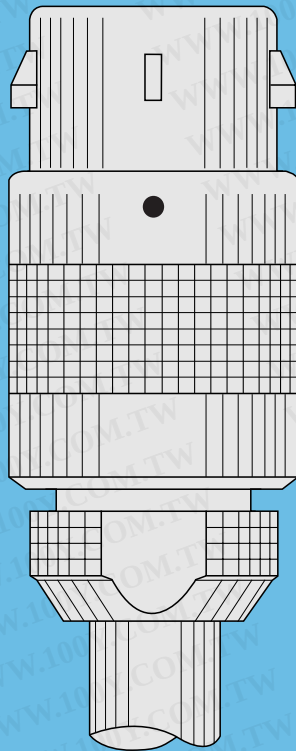
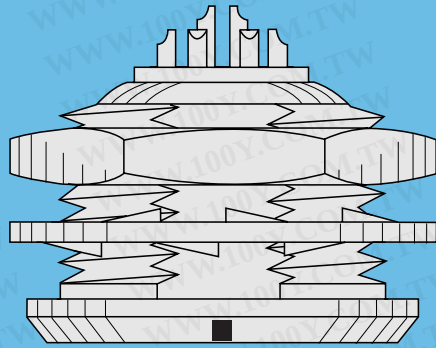
Watertight and vacuumtight socket and coupler models (S, E and L series)

	Model	Reference	
		Watertight	Vacuumtight
S	EWB, HCP, HGP, HGW, SWH	P	PV
E	EBR, HGP, SWH	P	PV
L	HGG	P	PV

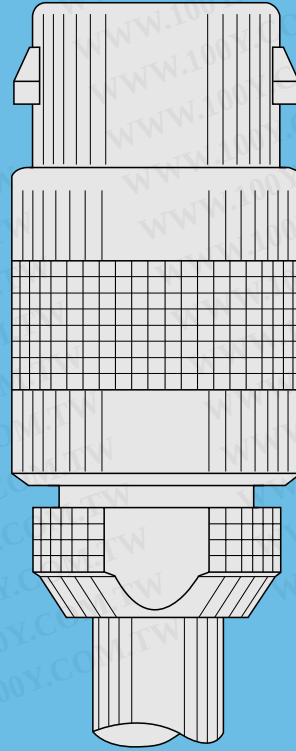
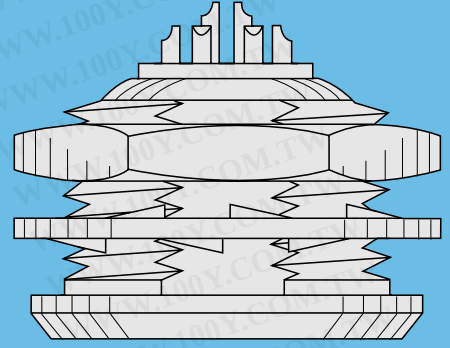
O-ring and gasket material (E and L series)

Standard connectors are delivered with silicone o-ring and gaskets. The vacuumtight models, identified with the letter «PV», are delivered with Viton® gaskets. Other gaskets material can be delivered upon special request.

O-ring material	Reference
FPM (Viton®)	H
EPDM	E
FPM (Viton®) and collet nut for bend relief	D



2G SERIES



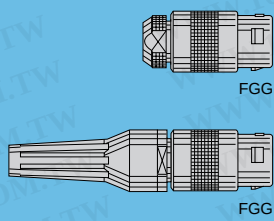
2C SERIES

2G Series

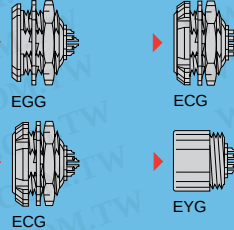
The 2G series with key (G) provides the same advantages of space saving due to its small dimensions as the 2C series and is available in multipole type with 18 contacts.

Metal housing models (page 111)

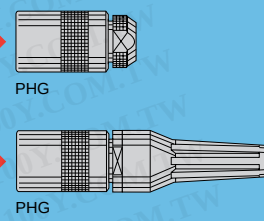
Straight plugs



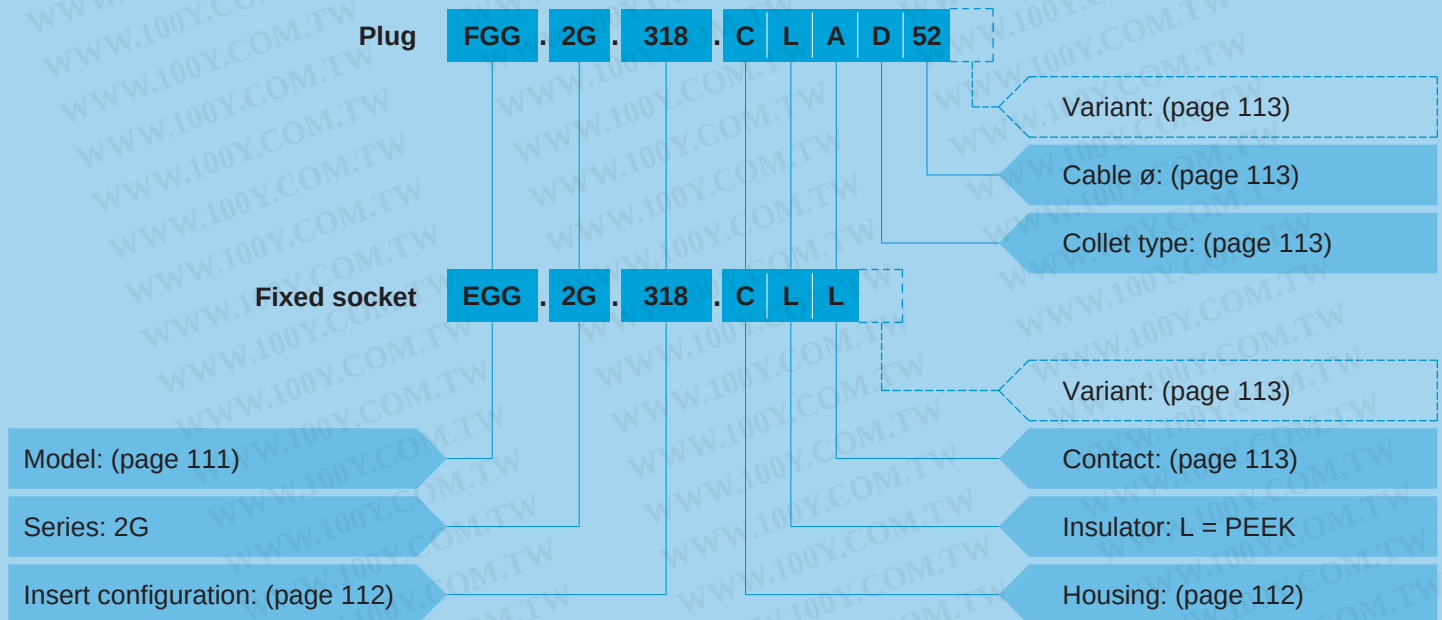
Fixed sockets



Free sockets



Part Numbering System



Part Number Example

Straight plug with cable collet:

FGG.2G.318.CLAD52 = straight plug with cable collet, 2G series, multipole type with 18 contacts, outer shell in chrome-plated brass, PEEK insulator, male solder contacts, D type collet for 5.2 mm diameter cable.

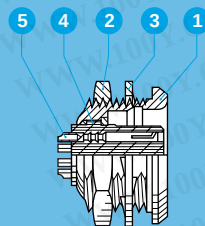
Fixed socket:

EGG.2G.318.CLL = fixed socket, 2G series, multipole type with 18 contacts, outer shell in chrome-plated brass, PEEK insulator, female solder contacts.

Part Section Showing Internal Components

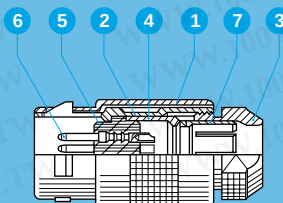
Fixed socket

- 1 outer shell
- 2 hexagonal nut
- 3 locking washer
- 4 insulator
- 5 female contact



Straight plug

- 1 outer shell
- 2 latch sleeve
- 3 collet nut
- 4 split centre-piece
- 5 insulator
- 6 male contact
- 7 collet





Metal housing models

Technical Characteristics

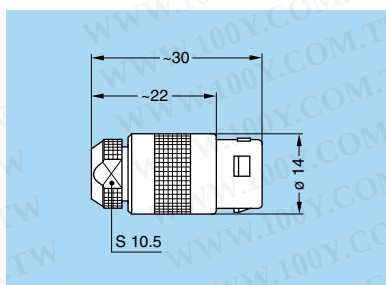
Mechanical and Climatical

Characteristics	Value	Standard
Endurance	> 500 cycles	IEC 60512-5 test 9a
Humidity	up to 95% at 60° C	
Temperature range	- 55° C + 250° C	
Salt spray corrosion test	> 144 h	IEC 60512-6 test 11f
Protection index	IP50	IEC 60529
Climatical category	55/175/21	IEC 60068-1

Note:

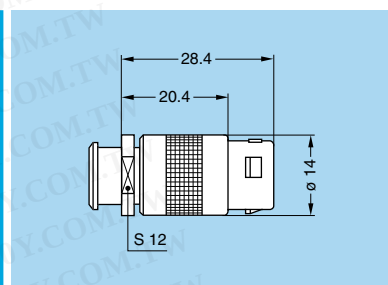
The various tests have been carried out with FGG and EGG connector pairs, with chrome-plated brass shell and PEEK insulator. Detailed electrical characteristics, as well as materials and treatment are presented in the chapter Technical Characteristics on page 171.

FGG.2G Straight plug, key (G), cable collet



Cable assembly (page 115)

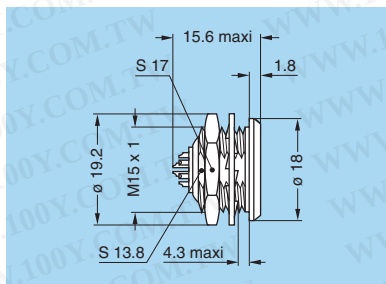
FGG.2G Straight plug, key (G), cable collet and nut for fitting a bend relief ¹⁾



Cable assembly (page 115)

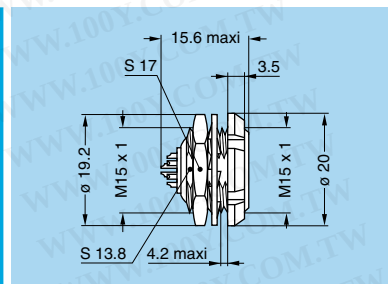
Note: ¹⁾ to order, add a «Z» at the end of the reference. The bend relief must be ordered separately (see page 141).

EGG.2G Fixed socket, nut fixing, key (G)



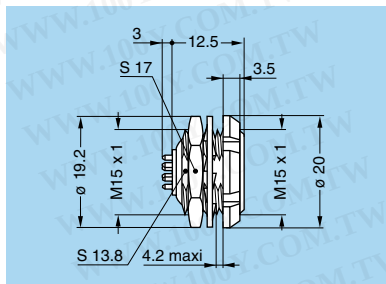
Panel cut-out (page 115)

ECG.2G Fixed socket with two nuts, key (G) (back panel mounting)



Panel cut-out (page 115)

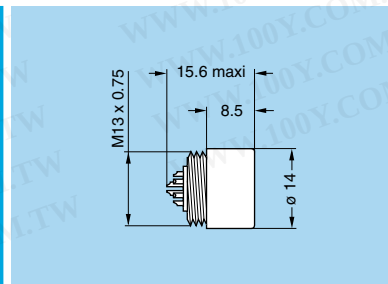
ECG.2G Fixed socket with two nuts, key (G), straight contact for printed circuit (back panel mounting)



Panel cut-out (page 115)

PCB drilling pattern (page 115)

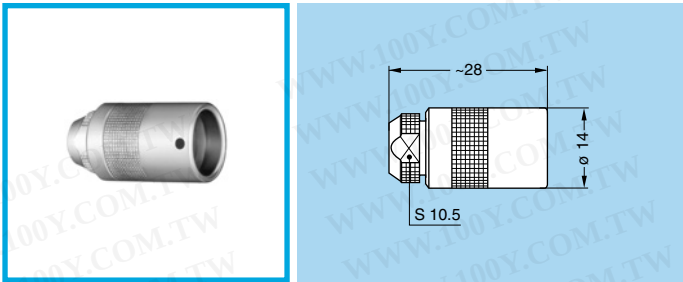
EYG.2G Fixed socket, key (G), protruding shell (screw fixing on the panel)



Panel cut-out (page 115)

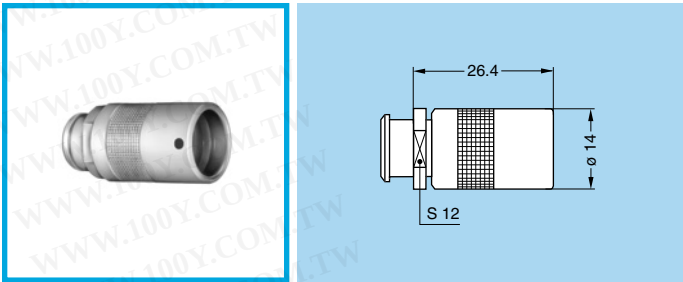
Note: all dimensions are in millimetres.

PHG.2G Free socket, key (G), cable collet



Cable assembly (page 115)

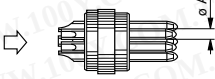
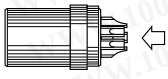
PHG.2G Free socket, key (G), cable collet and nut for fitting a bend relief ¹⁾



Cable assembly (page 115)

Note: ¹⁾ to order, add a «Z» at the end of the reference.
The bend relief must be ordered separately (see page 141).

Insert configuration (2G series)

			Reference	Number of contacts	ø A (mm)	Contact type		Test voltage (kV rms) ²⁾	Test voltage (kV dc) ²⁾	Rated current (A) ¹⁾
						Solder	Print			
2G			318	18	0.7	●	●	0.85	1.2	5.5

Note: ¹⁾ see calculation method, caution and suggested standard on page 178.
²⁾ lowest measured value; contact to contact or contact to shell.

Housings (2G series)

Ref.	Outer shell and collet nut		Latch sleeve		Other metallic components		Note
	Material	Surf. treatment	Material	Surf. treatment	Material	Surf. treatment	
C	Brass	chrome	brass/bronze	nickel	brass	nickel	●
N	Brass	nickel	brass/bronze	nickel	brass	nickel	○
K	Brass	black chrome	brass/bronze	nickel	brass	nickel	●

● First choice alternative
○ Special order alternative

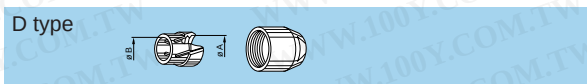
Note: detailed characteristics of these materials and treatments are presented on page 171.

Contacts (2G series)

Ref.	Contact type
A	Male solder
L	Female solder
N	Female print

Collets (2G series)

D type collets for 2G series

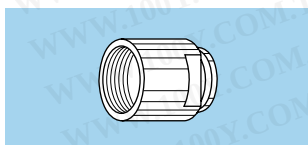


Reference			Collet ø		Cable ø	
Type	Code		ø A	ø B	max.	min.
2G	D	52	5.2	—	5.1	4.5
	D	62	6.2	—	6.1	5.5
	D	72	7.2	6.2	7.1	6.5
	D	80	8.0	6.2	7.9	7.5

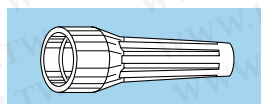
Note: all dimensions are in millimetres.

Variant (2G series)

Bend relief for 2G series models with collet



Need to be ordered

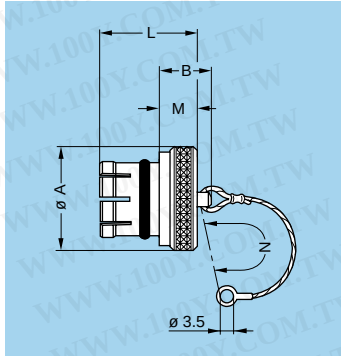


Ref.	Collet	
	Type	Code
2G	Z	D 52 to 80

Need to be ordered separately
(see pages 141 and 142)

GMA.2B.

Accessories (2G series)



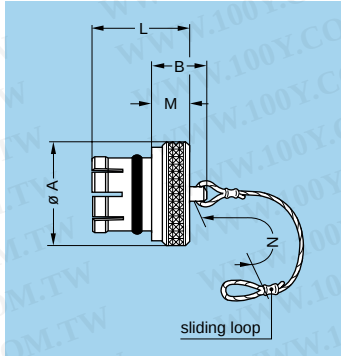
BRE Blanking caps for fixed and free sockets

Part number	Dimensions (mm)				
	A	B	L	M	N
BRE.2G.200.NAS	18	12	10.6	6.0	85

Note: these caps are suitable for use with any alignment key configuration. The last letter «S» of the part number stands for the material of the O ring (silicone rubber). O-ring's made from FPM are also available; if required, replace the letter «S» by «V».

- Body material: Nickel-plated brass (Ni 3 µm)
- Lanyard material: Stainless steel
- O-ring material: Silicone rubber or FPM

- Maximum operating temperature: 200°C
- Watertightness: IP61 according to IEC 60529



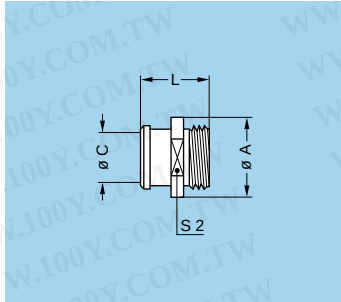
BRF Blanking caps for fixed sockets

Part number	Dimensions (mm)				
	A	B	L	M	N
BRF.2G.200.NAS	18	12	14.0	6.0	85

Note: this caps are suitable for use with any alignment key configuration. The last letter «S» of the part number stands for the material of the O ring (silicone rubber). O-ring's made from FPM are also available; if required, replace the letter «S» by «V».

- Body material: Nickel-plated brass (Ni 3 µm)
- Lanyard material: Stainless steel
- O-ring material: Silicone rubber or FPM

- Maximum operating temperature: 200°C
- Watertightness: IP61 according to IEC 60529



FFM Nut for bend relief

Part number	Dimensions (mm)			
	A	C	L	S2
FFM.2C.130.LC	14	8	12.2	12

Note: for bend reliefs to be used with this nut see section «Accessories» page 141.

- Material: Chrome-plated brass (0.3 µm)

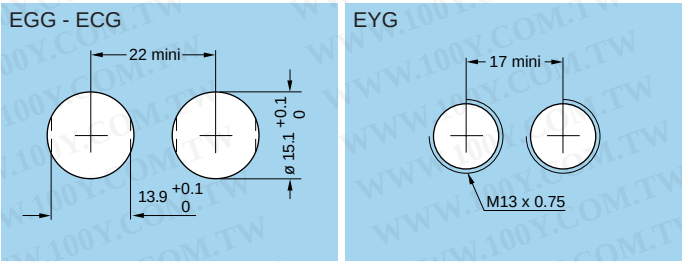
Note: other accessories are also available. See section «Accessories» on page 135.

Tooling (2G series)

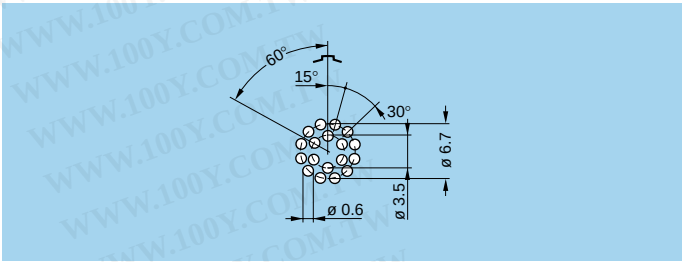
Please consult the «Tooling» section (page 146).

Panel cut-outs (2G series)

Panel cut-outs



PCB drilling pattern



Note: mounting nut torque: 6 Nm (1N = 0.102 kg)

Cable assembly (2G series)

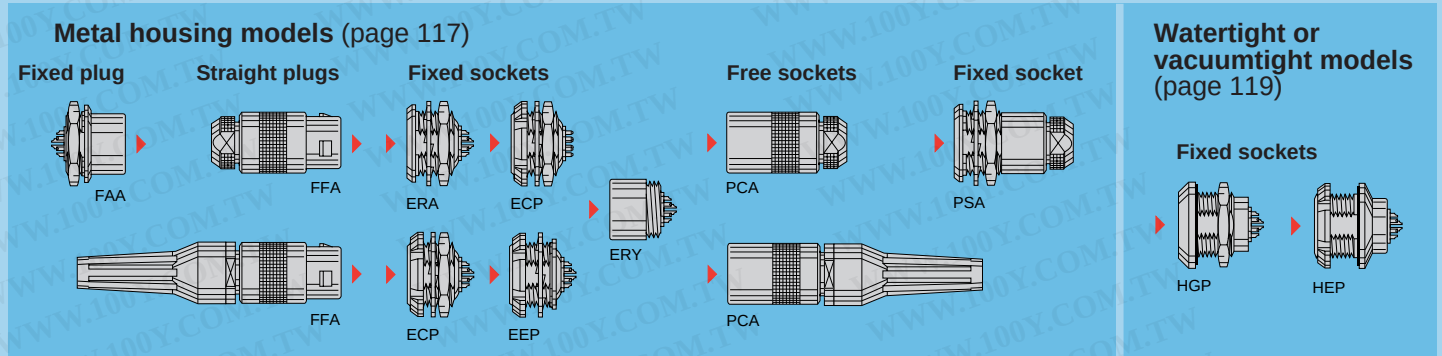
Cable stripping lengths (2G series)

Connector		Ø contact A (mm)	Cable stripping lengths (mm)		
Series	Type		L	S	T
2G	318	0.7	9	7	3

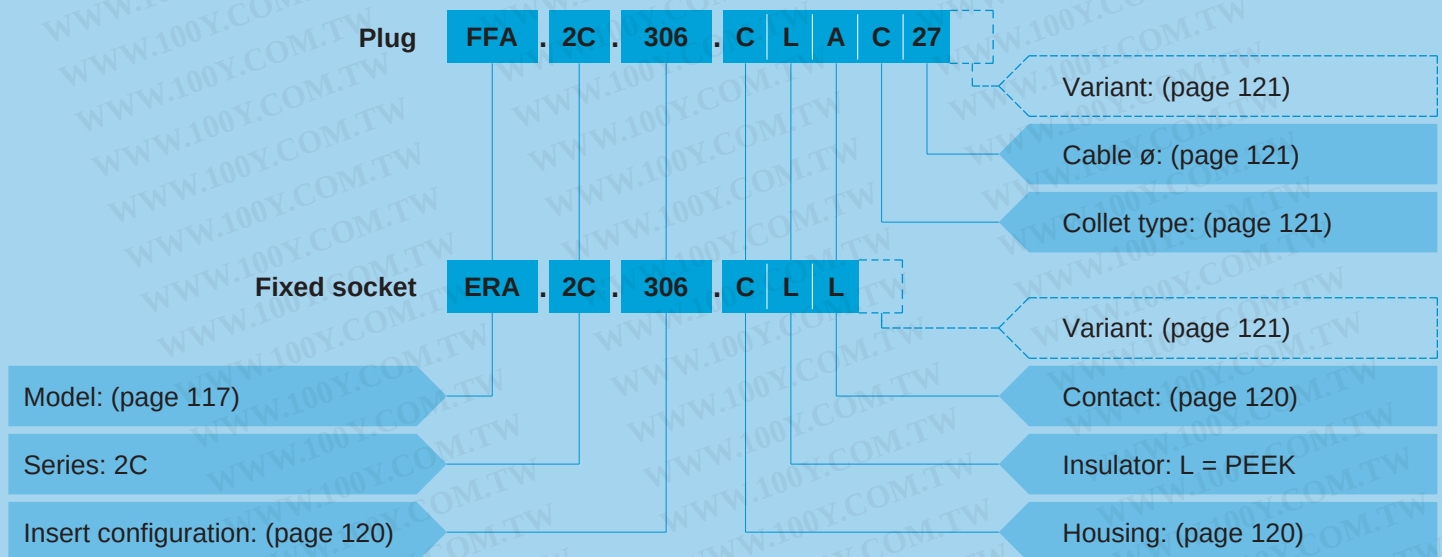
Note: the tolerances on these dimensions are: L: ± 0.5 mm; S: ± 0.5 mm; T: ± 0.2 mm.

2C Series

In many applications, it is necessary to use multipole connectors which have shortened dimensions but require high contact density. LEMO short series connectors, which are shorter than 30 mm, perfectly meet these needs. The 2C series, featuring a hermaphroditic insert, is available in multipole type up to 14 contacts.



Part Numbering System



Part Number Example

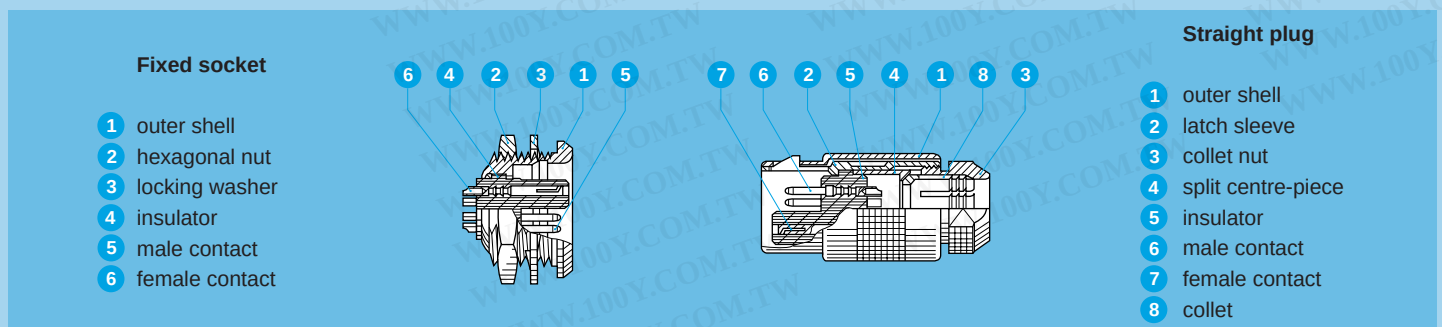
Straight plug with cable collet:

FFA.2C.306.CLAC27 = straight plug with cable collet, 2C series, multipole type with 6 contacts, outer shell in chrome-plated brass, PEEK insulator, male solder contacts, C type collet for 2.7 mm diameter cable.

Fixed socket:

ERA.2C.306.CLL = fixed socket, nut fixing, 2C series, multipole type with 6 contacts, outer shell in chrome-plated brass, PEEK insulator, female solder contacts.

Part Section Showing Internal Components





Metal housing models

Technical Characteristics

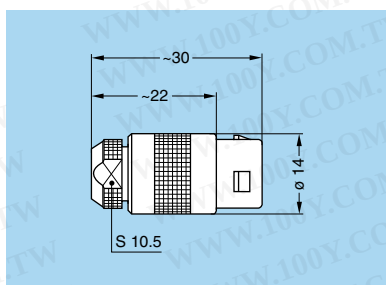
Mechanical and Climatical

Characteristics	Value	Standard
Endurance	> 500 cycles	IEC 60512-5 test 9a
Humidity	up to 95% at 60° C	
Temperature range	- 55° C + 250° C	
Salt spray corrosion test	> 144 h	IEC 60512-6 test 11f
Protection index	IP50	IEC 60529
Climatical category	55/175/21	IEC 60068-1

Note:

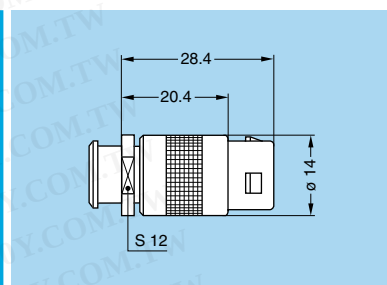
The various tests have been carried out with FFA and ERA connector pairs, with chrome-plated brass shell and PEEK insulator. Detailed electrical characteristics, as well as materials and treatment are presented in the chapter Technical Characteristics on page 171.

FFA.2C Straight plug, cable collet



Cable assembly (page 122)

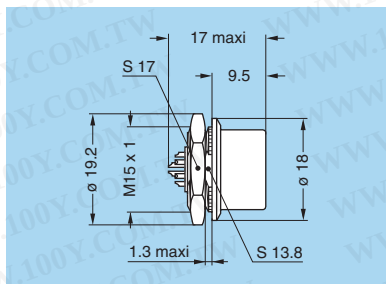
FFA.2C Straight plug, cable collet and nut for fitting a bend relief¹⁾



Cable assembly (page 122)

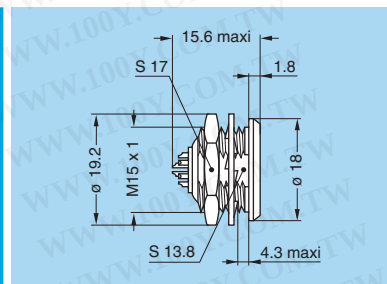
Note: ¹⁾ to order, add a «Z» at the end of the reference. The bend relief must be ordered separately (see page 141).

FAA.2C Fixed plug, nut fixing, non-latching



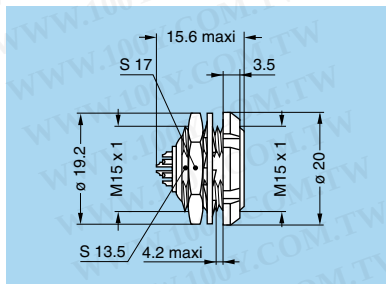
Panel cut-out (page 122)

ERA.2C Fixed socket, nut fixing



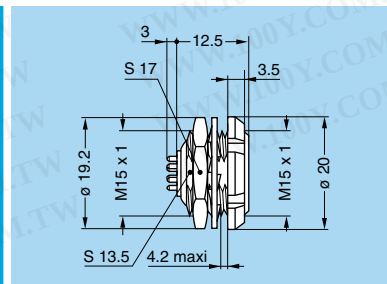
Panel cut-out (page 122)

ECP.2C Fixed socket with two nuts (back panel mounting)



Panel cut-out (page 122)

ECP.2C Fixed socket with two nuts, straight contact for printed circuit (back panel mounting)

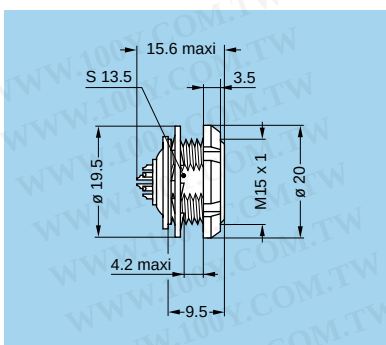


Panel cut-out (page 122)

PCB drilling pattern (page 122)

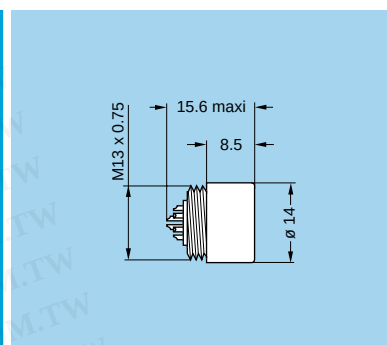
Note: all dimensions are in millimetres.

EEP.2C Fixed socket, nut fixing (back panel mounting)



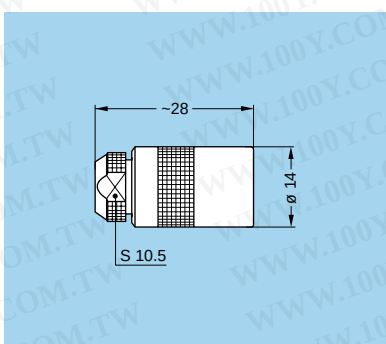
Panel cut-out (page 122)

ERY.2C Fixed socket, protruding shell, (screw fixing on the panel)



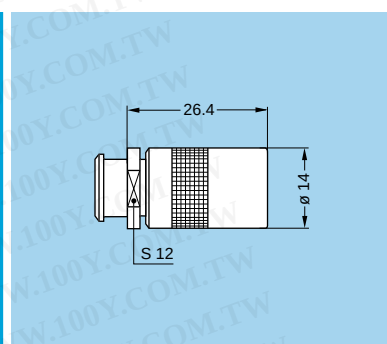
Panel cut-out (page 122)

PCA.2C Free socket, cable collet



Cable assembly (page 122)

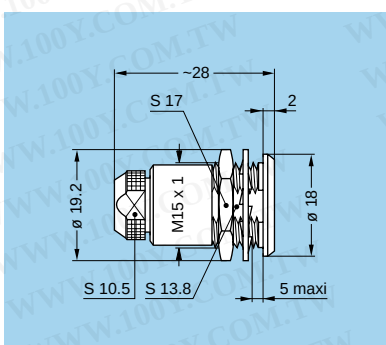
PCA.2C Free socket, cable collet and nut for fitting a bend relief ¹⁾



Cable assembly (page 122)

Note: ¹⁾ to order, add a «Z» at the end of the reference.
The bend relief must be ordered separately (see page 141).

PSA.2C Fixed socket nut fixing, cable collet



Panel cut-out (page 122)

Note: all dimensions are in millimetres.



Watertight or vacuumtight models

These socket allow the device on which they are fitted to reach a protection index of IP68 as per IEC 60529. They are fully compatible with plugs of the same series and are widely used for portable radios, military, laboratory equipment, aviation, etc.

These models are identified by a letter «P» at the end of the reference.

These models are also available in a vacuumtight version. Such models are identified by an additional letter «V» at the end of the part number (certificate on request).

Epoxy resin is used to seal these models.

Technical Characteristics

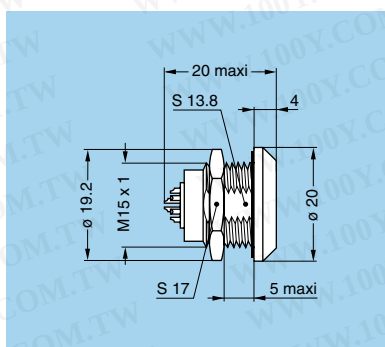
Mechanical and Climatical

Characteristics	Value	Standard
Endurance	> 500 cycles	IEC 60512-5 test 9a
Humidity	up to 95% at 60° C	
Temperature range	-20° C, +80° C	
Salt spray corrosion test	> 144h	IEC 60512-6 test 11f

Characteristics	Value	Standard
Climatical category	20/80/21	IEC 60068-1
Leakage rate (He) ¹⁾	< 10 ⁻⁷ mbar.l.s ⁻¹	IEC 60512-7 test 14b
Maximum operating pressure	5 bars	IEC 60512-7 test 14d

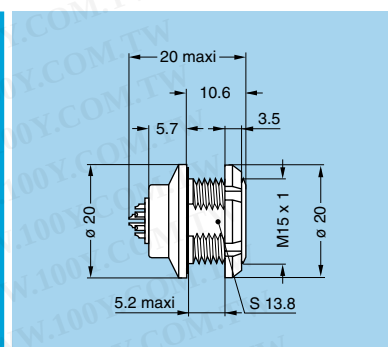
Note: ¹⁾ only for vacuumtight models.

HGP.2C Fixed socket, nut fixing, watertight or vacuumtight



Panel cut-out (page 122)

HEP.2C Fixed socket, nut fixing, watertight or vacuumtight (back panel mounting)



Panel cut-out (page 122)



Insert configuration (2C series)

			Reference	Number of contacts	ø A (mm)	Contact type		Test voltage (kV rms) ^{1) 2)}	Test voltage (kV dc) ^{1) 2)}	Rated current (A) ¹⁾
						Solder	Print			
2C			302	2	1.6	●	—	1.80	2.40	20
			303	3	1.3	●	—	1.50	2.10	15
			304	4	1.3	●	—	1.80	2.40	15
			306	6	1.3	●	—	1.50	2.10	12
			308	8	0.7	●	●	0.95	1.35	7
			310	10	0.7	●	●	0.95	1.35	7
			312	12	0.7	●	●	0.60	0.90	5
			314	14	0.7	●	●	0.60	0.90	5

Note: 1) see calculation method, caution and suggested standard on page 178.
2) lowest measured value; contact to contact or contact to shell.



Housings (2C series)

Ref.	Outer shell and collet nut		Latch sleeve		Other metallic components		Note
	Material	Surf. treatment	Material	Surf. treatment	Material	Surf. treatment	
C	Brass	chrome	brass/bronze	nickel	brass	nickel	●
N	Brass	nickel	brass/bronze	nickel	brass	nickel	○
K	Brass	black chrome	brass/bronze	nickel	brass	nickel	●

● First choice alternative
○ Special order alternative

Note: detailed characteristics of these materials and treatments are presented on page 171.



Contacts (2C series)

Ref.	Contact type
A	Male solder
L	Female solder
N	Female print

Multipole connectors are fitted with hermaphroditic inserts including male and female contacts. However, by convention, the letter indicating the contact type in the part number composition will be the male contact (reference A) for plugs and female contact (reference L) for sockets.

Collets (2C series)

C and L type collets for 2C series

C type



Reference		Collet ø		Cable ø	
Type	Code	ø A	ø B	max.	min.
2C	C 27	2.7	—	2.6	2.2
	C 32	3.2	—	3.1	2.7
	C 37	3.7	—	3.6	3.2
	C 42	4.2	—	4.1	3.7
	C 47	4.7	—	4.6	4.2
	C 52	5.2	—	5.1	4.7
	C 57	5.7	—	5.6	5.2
	C 62	6.2	—	6.1	5.7
	C 67	6.7	6.2	6.6	6.2
	C 72	7.2	6.2	7.1	6.7
	C 75	7.5	6.2	7.4	7.2
	C 80	8.0	6.2	7.9	7.5

L type

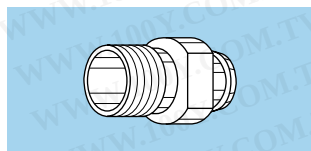


Reference		Collet ø		Cable ø	
Type	Code	ø A	ø B	max.	min.
2C	L 14	1.4	—	1.3	0.8
	L 27	2.7	—	2.6	2.2
	L 32	3.2	—	3.1	2.7
	L 37	3.7	—	3.6	3.2
	L 42	4.2	—	4.1	3.7
	L 47	4.7	—	4.6	4.2
	L 52	5.2	—	5.1	4.7
	L 57	5.7	—	5.6	5.2
	L 62	6.2	—	6.1	5.7
	L 67	6.7	—	6.6	6.2
	L 72	7.2	—	7.1	6.7
	L 77	7.7	—	7.6	7.2
	L 82	8.2	—	8.1	7.7

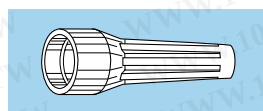
Note: all dimensions are in millimetres.

Variant (2C series)

Bend relief for 2C series models with collet



Need to be ordered



Ref.	Collet		Need to be ordered separately (see pages 141 and 142)	
	Type	Code		
2C	Z	C	42 to 80	GMA.2B.0●●.D●
		L	42 to 82	GMA.2B.0●●.D●

Watertight and vacuumtight socket models (2C series)

Model	Reference	
	Watertight	Vacuumtight
2C	HEP	P
	HGP	PV

Accessories (2C series)

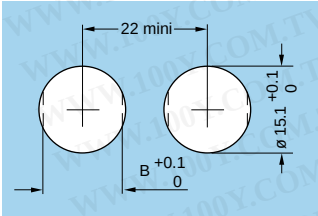
Accessories for the 2C series are identical with the 2G series. Please refer to corresponding pages (page 114).

Tooling (2C series)

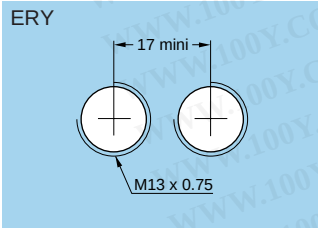
Please consult the «Tooling» section (page 146).

Panel cut-outs (2C series)

Panel cut-outs

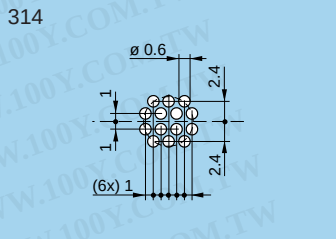
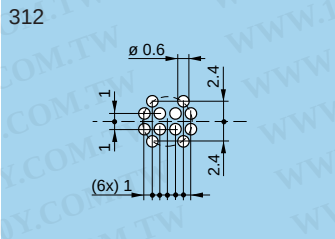
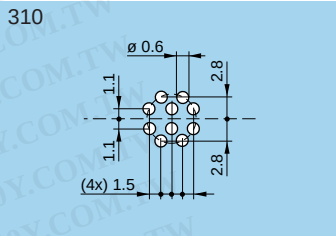
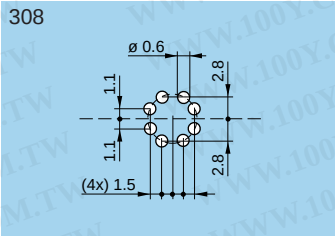


Model	B (mm)	Model	B (mm)
ECP	13.6	HGP	13.9
EEP	13.6	PSA	13.9
ERA	13.9		
FAA	13.9		
HEP	13.9		



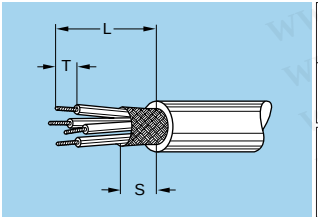
Note:
mounting nut torque:
6 Nm (1N = 0.102 kg)

PCB drilling patterns



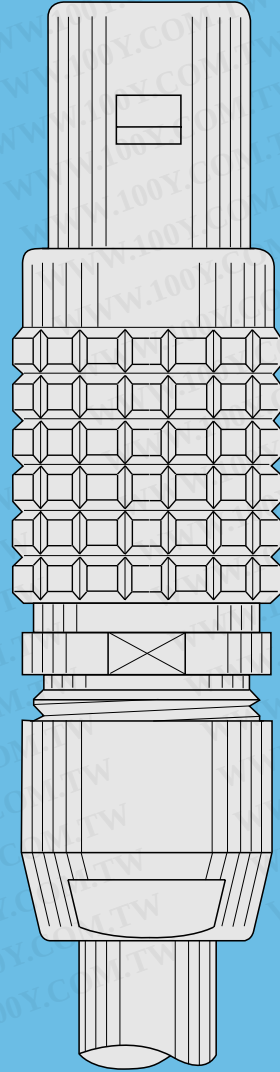
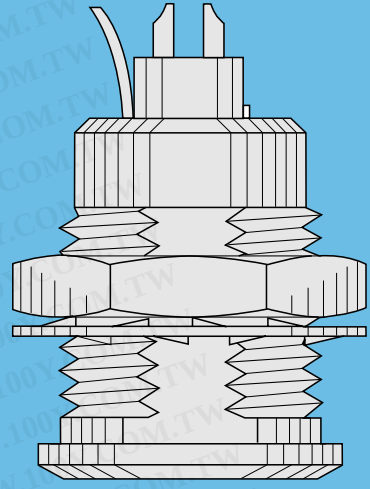
Cable assembly (2C series)

Cable stripping lengths (2C series)



Connector		Ø contact A (mm)	Cable stripping lengths (mm)		
Series	Type		L	S	T
2C	302	1.6	11	8	3
	303/304/306	1.3	11	8	3
	308/310/312/314	0.7	11	8	3

Note: the tolerances on these dimensions are: L: ± 0.5 mm; S: ± 0.5 mm; T: ± 0.2 mm.



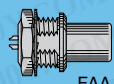
1D SERIES (quadrax)

1D Series

1D series QUADRAX connectors have four concentric contacts insulated from the connector shell. Specially developed for major radio and television channels, this new connector type provides the possibility of blind mating with the full security of the LEMO Push-Pull self-latching system.

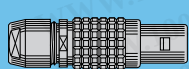
Metal housing models (page 125)

Fixed plug

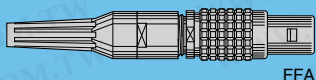


FFA

Straight plugs

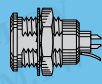


FFA



FFA

Fixed socket

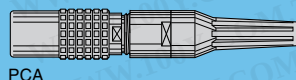


ERN

Free sockets

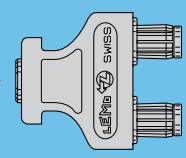


PCA



PCA

Bridge plug



CFF, CRF

Part Numbering System

Plug

FFA . 1D . 694 . C N L D 42

Variant: (page 128)

Cable ø: (page 127)

Collet type: (page 127)

Fixed socket

ERN . 1D . 694 . C N A

Variant: (page 128)

Model: (page 125)

Series: 1D

Insert configuration: (page 127)
694 = quadrax

Contact: (page 127)

Insulator: N = PA6.6

Housing: (page 127)

Part Number Example

Straight plug with cable collet:

FFA.1D.694.CNLD42 = straight plug with cable collet, 1D series, quadrax type, outer shell in chrome-plated brass, PA6.6 insulator, female solder contacts, D type collet for 4.2 mm diameter cable.

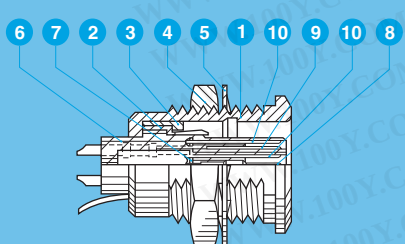
Fixed socket:

ERN.1D.694.CNA = fixed socket, 1D series, quadrax type, outer shell in chrome-plated brass, PA6.6 insulator, male solder contacts.

Part Section Showing Internal Components

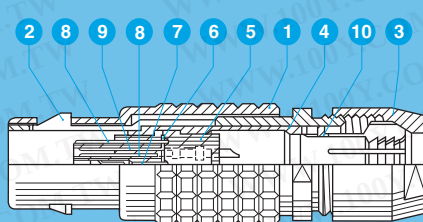
Fixed socket

- 1 outer shell
- 2 earthing crown
- 3 retaining ring
- 4 hexagonal nut
- 5 locking washer
- 6 insulator
- 7 printed circuit
- 8 male contact
- 9 male intermediate contact
- 10 female intermediate contact



Straight plug

- 1 outer shell
- 2 latch sleeve
- 3 collet nut
- 4 split centre-piece
- 5 insulator
- 6 printed circuit
- 7 female contact
- 8 male intermediate contact
- 9 female intermediate contact
- 10 collet



Metal housing models

Technical Characteristics

Mechanical and Climatical

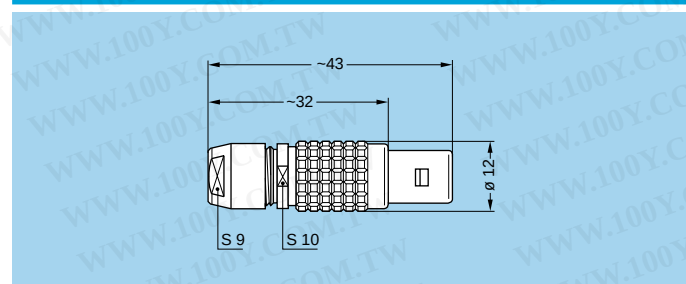
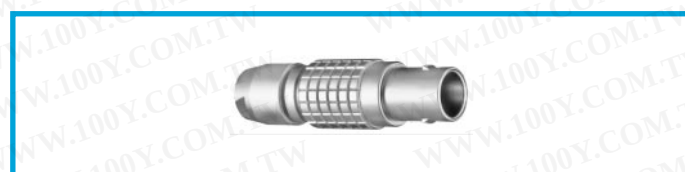
Characteristics	Value	Standard
Endurance	> 1000 cycles	IEC 60512-5 test 9a
Temperature range ¹⁾	-40° C, +120° C	
Salt spray corrosion test	> 144h	IEC 60512-6 test 11f
Protection index	IP50	IEC 60529

Note:

¹⁾ for bridge plug: -40° C, +80° C
Detailed electrical characteristics, as well as materials and treatment are presented in the chapter Technical Characteristics on page 171.

Electrical

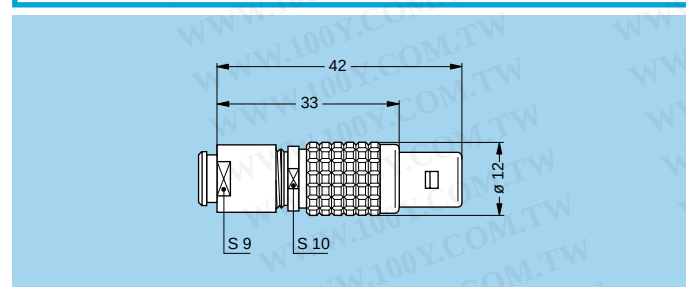
Characteristics	Value	Standard
Insulation resistance	> 10 ¹¹ Ω	IEC 60512-2 test 3a
Insul. res. after 48h 95%RH	> 10 ¹⁰ Ω	IEC 60512-2 test 3a
Screening efficiency	at 10 MHz at 1 GHz	> 70 dB > 35 dB
Contact resistance	< 20mΩ	IEC 60512-2 test 2a



FFA Straight plug, cable collet

Part number
FFA.1D.694.CNLD42
FFA.1D.694.CNLD52
FFA.1D.694.CNLD62
FFA.1D.694.CNLD72
FFA.1D.694.CNLD76

Cable assembly (page 128)

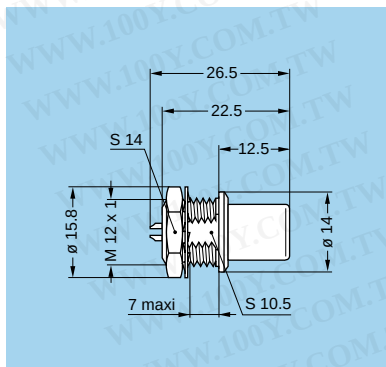
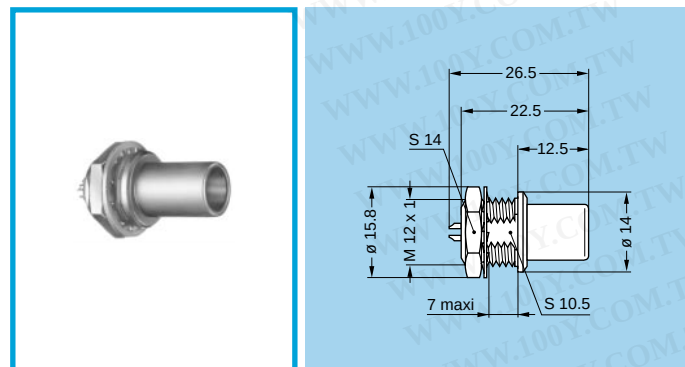


FFA Straight plug, cable collet and nut for fitting a bend relief

Part number
FFA.1D.694.CNLD42Z
FFA.1D.694.CNLD52Z
FFA.1D.694.CNLD62Z
FFA.1D.694.CNLD72Z

Cable assembly (page 128)

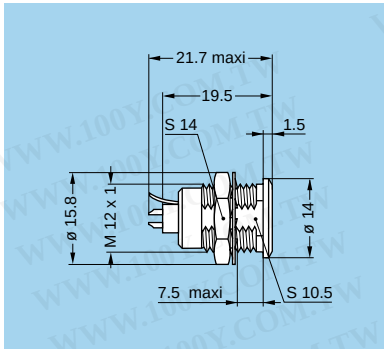
Note: The bend relief must be ordered separately (see page 141).



FAA Fixed plug, nut fixing, non-latching

Part number
FAA.1D.694.CNL

Panel cut-out (page 128)

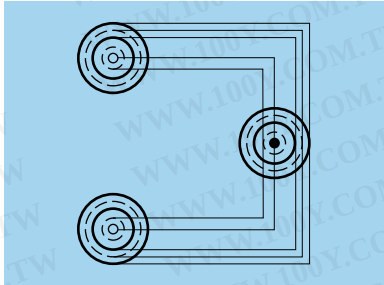


ERN Fixed socket nut fixing, with earthing tag

Part number

ERN.1D.694.CNA

Panel cut-out (page 128)



CFF Bridge plug with two non-latching plugs

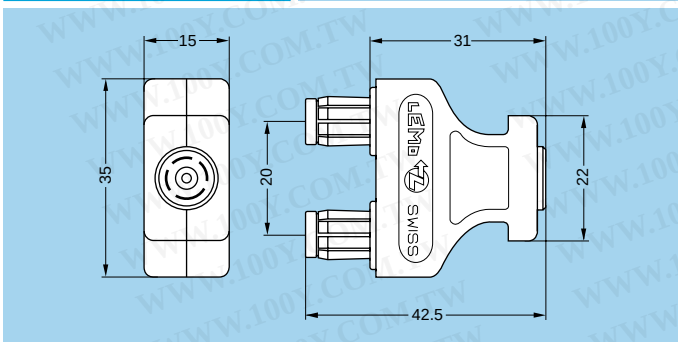
CRF Bridge plug with two non-latching plugs with monitoring output

Part number

CFF.1D.694.PNMG

CRF.1D.694.PNFG

Note: the last letter (G) of the part number indicates the grey colour of the housing. For other colours, replace this letter (G) by the one corresponding to the required colour.



PCA Free socket, cable collet

Part number

PCA.1D.694.CNAD42

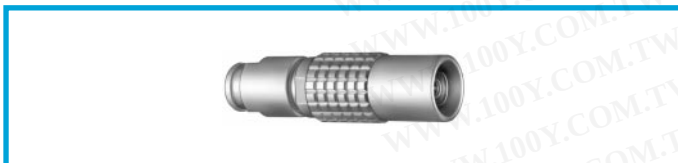
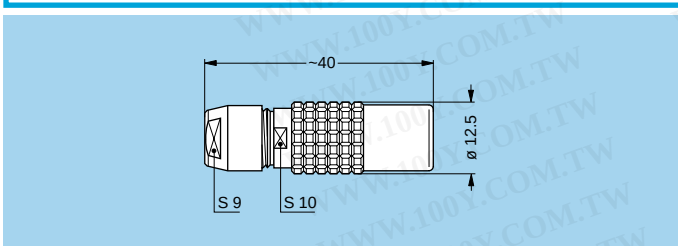
PCA.1D.694.CNAD52

PCA.1D.694.CNAD62

PCA.1D.694.CNAD72

PCA.1D.694.CNAD76

Cable assembly (page 128)



PCA Free socket, cable collet and nut for fitting a bend relief

Part number

PCA.1D.694.CNAD42Z

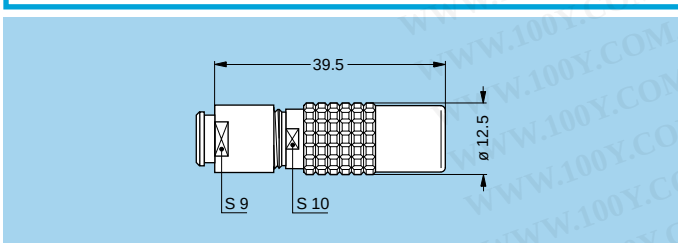
PCA.1D.694.CNAD52Z

PCA.1D.694.CNAD62Z

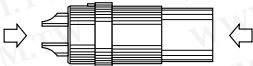
PCA.1D.694.CNAD72Z

Cable assembly (page 128)

Note: The bend relief must be ordered separately (see page 141).



Insert configuration (1D series)

 Male solder contacts	 Female solder contacts	Reference	Number of contacts	Contact type	Test voltage (kV rms) ^{1) 2)}	Test voltage (kV dc) ^{1) 2)}	Rated current (A) ¹⁾
				Solder			
 	 	694	4		0.42	0.6	0.5

Note: 1) see calculation method, caution and suggested standard on page 178.

2) lowest measured value; contact to contact or contact to shell.

Housings (1D series)

Ref.	Outer shell and collet nut		Latch sleeve + earthing crown		Other metallic components		Remarks	Note
	Material	Surf. treatment	Material	Surf. treatment	Material	Surf. treatment		
C	Brass	chrome	brass/bronze	nickel	brass	nickel	Only for CFF and CRF bridge plug ¹⁾	
P	PA.6	—	brass/bronze	nickel	brass	nickel		

Note: detailed characteristics of these materials and treatments are presented on page 171. ¹⁾ see «variant» for the colour.

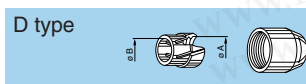
- First choice alternative
- Special order alternative

Contacts (1D series)

Ref.	Contact type	Remarks
A	Male solder center contact	For sockets
L	Female solder center contact	For plugs

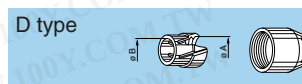
Collets (1D series)

D type collets for 1D series



1D	Reference		Collet ø		Cable ø		Notes
	Type	Code	ø A	ø B	max.	min.	
	D	42	4.2	—	4.0	3.1	
	D	52	5.2	—	5.0	4.1	
	D	62	6.2	—	6.0	5.1	

D type collets for 1D series



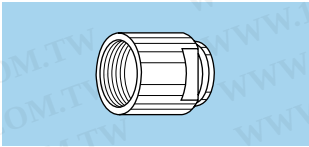
1D	Reference		Collet ø		Cable ø		Notes
	Type	Code	ø A	ø B	max.	min.	
	D	72	7.2	6.7	7.0	6.1	
	D	76	7.6	6.7	7.5	7.1	¹⁾

Note: ¹⁾ these collets cannot be used for connector models with nut for fitting a bend relief. All dimensions are in millimetres.

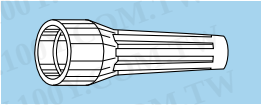


Variant (1D series)

Bend relief for 1D series models with collet



Need to be ordered



Ref.	Collet	
	Type	Code
1D	Z	D
		42 to 72

Need to be ordered separately (see pages 141 and 142)
GMA.1B.●●●●●

Colour of the bridge plug shells

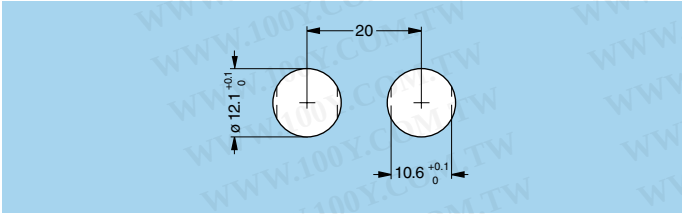
Reference	Colour
A	blue
B	white
G	grey
J	yellow
M	brown
N	black
R	red
V	green

Accessories and Tooling (1D series)

Accessories and tooling for the 1D series are identical with the 1B series. Please refer to corresponding pages (page 135 and 146).

Panel cut-outs (1D series)

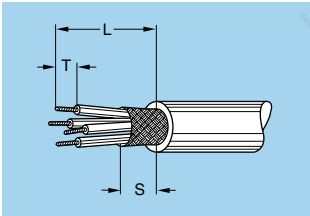
Panel cut-out



Note: mounting nut torque: 4.5 Nm (1N = 0.102 kg)
When connectors are assembled with double panel washers or insulating washers the mounting nut torque is 4 Nm.

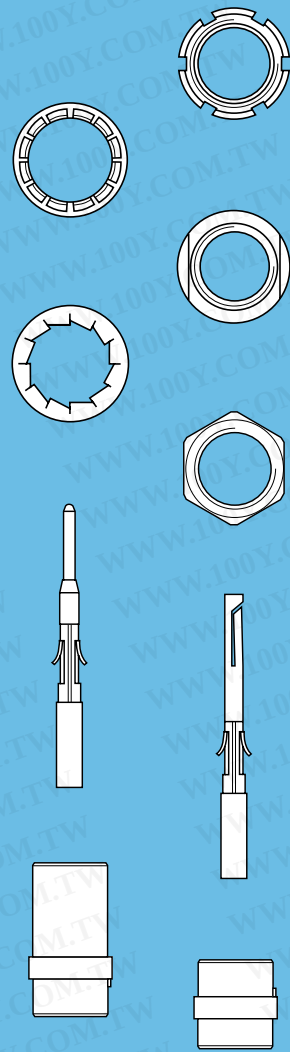
Cable assembly (1D series)

Cable stripping lengths (1D series)



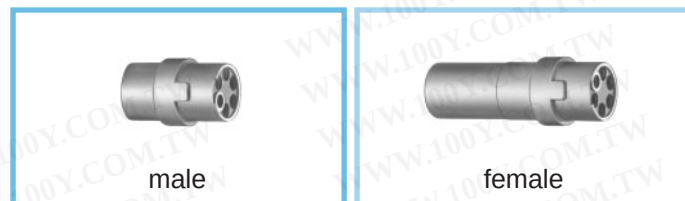
Connector		ø contact A (mm)	Cable stripping lengths (mm)		
Series	Type		L	S	T
1D	694	—	14	8	3

Note: the tolerances on these dimensions are: L: ± 0.5 mm; S: ± 0.5 mm; T: ± 0.2 mm.



SPARE PARTS

Spare parts



FGG-EGG Insulators for crimp contacts

	Type	Insulator part number	
		Male contact	Female contact
00	302	FGG.00.302.YL	EGG.00.402.YL
	303	FGG.00.303.YL	EGG.00.403.YL
	304	FGG.00.304.YL	EGG.00.404.YL
0B 0K	302	FGG.0B.302.YL	EGG.0B.402.YL
	303	FGG.0B.303.YL	EGG.0B.403.YL
	304	FGG.0B.304.YL	EGG.0B.404.YL
	305	FGG.0B.305.YL	EGG.0B.405.YL
	306	FGG.0B.306.YL	—
	307	FGG.0B.307.YL	—
	309	FGG.0B.309.YL	—
1B 1K	302	FGG.1B.302.YL	EGG.1B.402.YL
	303	FGG.1B.303.YL	EGG.1B.403.YL
	304	FGG.1B.304.YL	EGG.1B.404.YL
	305	FGG.1B.305.YL	EGG.1B.405.YL
	306	FGG.1B.306.YL	EGG.1B.406.YL
	307	FGG.1B.307.YL	EGG.1B.407.YL
	308	FGG.1B.308.YL	EGG.1B.408.YL
	310	FGG.1B.310.YL	—
2B 2K	314	FGG.1B.314.YL	—
	316	FGG.1B.316.YL	—
	302	FGG.2B.302.YL	EGG.2B.402.YL
	303	FGG.2B.303.YL	EGG.2B.403.YL
	304	FGG.2B.304.YL	EGG.2B.404.YL
	305	FGG.2B.305.YL	EGG.2B.405.YL
	306	FGG.2B.306.YL	EGG.2B.406.YL
	307	FGG.2B.307.YL	EGG.2B.407.YL
	308	FGG.2B.308.YL	EGG.2B.408.YL
	310	FGG.2B.310.YL	EGG.2B.410.YL
3B 3K	312	FGG.2B.312.YL	EGG.2B.412.YL
	314	FGG.2B.314.YL	EGG.2B.414.YL
	316	FGG.2B.316.YL	EGG.2B.416.YL
	318	FGG.2B.318.YL	EGG.2B.418.YL
	319	FGG.2B.319.YL	EGG.2B.419.YL
	302	FGG.3B.302.YL	EGG.3B.402.YL
	303	FGG.3B.303.YL	EGG.3B.403.YL
	304	FGG.3B.304.YL	EGG.3B.404.YL
	305	FGG.3B.305.YL	EGG.3B.405.YL
	306	FGG.3B.306.YL	EGG.3B.406.YL
	307	FGG.3B.307.YL	EGG.3B.407.YL

	Type	Insulator part number	
		Male contact	Female contact
3B 3K	308	FGG.3B.308.YL	EGG.3B.408.YL
	309	FGG.3B.309.ML	EGG.3B.409.ML
	310	FGG.3B.310.YL	EGG.3B.410.YL
	312	FGG.3B.312.YL	EGG.3B.412.YL
	314	FGG.3B.314.YL	EGG.3B.414.YL
	316	FGG.3B.316.YL	EGG.3B.416.YL
	318	FGG.3B.318.YL	EGG.3B.418.YL
	320	FGG.3B.320.YL	EGG.3B.420.YL
	322	FGG.3B.322.YL	EGG.3B.422.YL
	324	FGG.3B.324.YL	EGG.3B.424.YL
	326	FGG.3B.326.YL	EGG.3B.426.YL
	330	FGG.3B.330.YL	EGG.3B.430.YL
4B 4K	304	FGG.4B.304.YL	EGG.4B.404.YL
	306	FGG.4B.306.YL	EGG.4B.406.YL
	307	FGG.4B.307.YL	EGG.4B.407.YL
	310	FGG.4B.310.YL	EGG.4B.410.YL
	312	FGG.4B.312.YL	EGG.4B.412.YL
	316	FGG.4B.316.YL	EGG.4B.416.YL
	320	FGG.4B.320.YL	EGG.4B.420.YL
	324	FGG.4B.324.YL	EGG.4B.424.YL
	330	FGG.4B.330.YL	EGG.4B.430.YL
	340	FGG.4B.340.YL	EGG.4B.440.YL
	348	FGG.4B.348.YL	EGG.4B.448.YL
5B 5K	304	FGG.5B.304.ML	EGG.5B.404.ML
	310	FGG.5B.310.YL	EGG.5B.410.YL
	314	FGG.5B.314.YL	EGG.5B.414.YL
	316	FGG.5B.316.YL	EGG.5B.416.YL
	320	FGG.5B.320.YL	EGG.5B.420.YL
	330	FGG.5B.330.YL	EGG.5B.430.YL
	340	FGG.5B.340.YL	EGG.5B.440.YL
	348	FGG.5B.348.YL	EGG.5B.448.YL
	350	FGG.5B.350.ML	EGG.5B.450.ML
	354	FGG.5B.354.YL	EGG.5B.454.YL
	364	FGG.5B.364.YL	EGG.5B.464.YL

Note: each insulator can be used both for crimp contacts of normal shape (fig. 1) or with reduced solder cups (fig. 2) as shown on page 131.

FGG-EGG Crimp contacts

Fig. 1

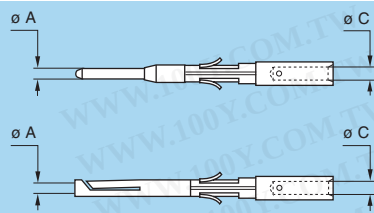
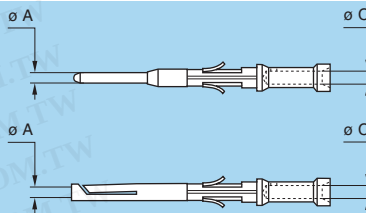
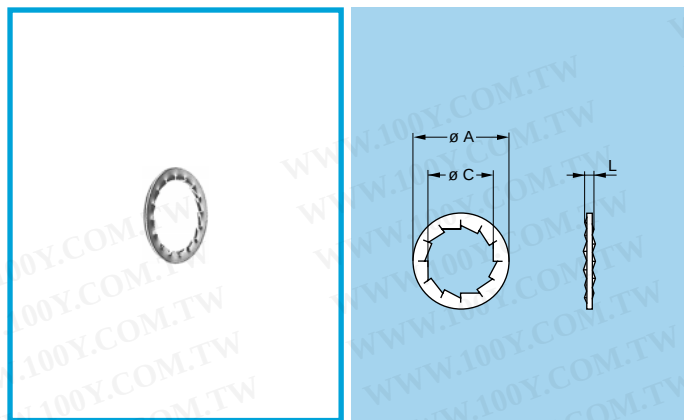


Fig. 2



	Types	ø A (mm)	ø C (mm)	Contact part number	
				Male	Female
00	302	0.5	0.45	FGG.00.554.ZZC	EGG.00.654.ZZM
	303	0.5	0.45	FGG.00.554.ZZC	EGG.00.654.ZZM
	304	0.5	0.45	FGG.00.554.ZZC	EGG.00.654.ZZM
0B 0K	302/303	0.9	1.10	FGG.0B.560.ZZC	EGG.0B.660.ZZM
	304/305	0.7	0.80	FGG.0B.555.ZZC	EGG.0B.655.ZZM
	306/307/309	0.5	0.45	FGG.0B.554.ZZC	—
0S	302	0.9	1.10	FGG.0B.560.ZZC	EGG.0B.660.ZZM
	304	0.7	0.80	FGG.0B.555.ZZC	EGG.0B.655.ZZM
1B 1K	302/303	1.3	1.40	FGG.1B.565.ZZC	EGG.1B.665.ZZM
	304/305	0.9	1.10	FGG.1B.560.ZZC	EGG.1B.660.ZZM
	306/307/308	0.7	0.80	FGG.1B.555.ZZC	EGG.1B.655.ZZM
	310/314/316	0.5	0.45	FGG.1B.554.ZZC	—
1S	302	1.3	1.40	FGG.1B.565.ZZC	EGG.1B.665.ZZM
	304	0.9	1.10	FGG.1B.560.ZZC	EGG.1B.660.ZZM
2B 2K	302	2.0	2.40	FGG.2B.575.ZZC	EGG.2B.675.ZZM
	303	1.6	1.90	FGG.2B.570.ZZC	EGG.2B.670.ZZM
	304/305	1.3	1.40	FGG.2B.565.ZZC	EGG.2B.665.ZZM
	306/307	1.3	1.40	FGG.2B.565.ZZC	EGG.2B.665.ZZM
	308/310	0.9	1.10	FGG.2B.560.ZZC	EGG.2B.660.ZZM
	312/314/316	0.7	0.80	FGG.2B.555.ZZC	EGG.2B.655.ZZM
	318/319	0.7	0.80	FGG.2B.555.ZZC	EGG.2B.655.ZZM
2S	306	1.3	1.40	FGG.2B.565.ZZC	EGG.2B.665.ZZM
3B 3K	302	3.0	2.90	FGG.3B.580.ZZC	EGG.3B.680.ZZM
	303/304/309	2.0	2.40	FGG.3B.575.ZZC	EGG.3B.675.ZZM
	305/306/307	1.6	1.90	FGG.3B.570.ZZC	EGG.3B.670.ZZM
	308/309/310	1.3	1.40	FGG.3B.565.ZZC	EGG.3B.665.ZZM
	312/314	0.9	1.10	FGG.3B.560.ZZC	EGG.3B.660.ZZM
	316/318	0.9	1.10	FGG.3B.560.ZZC	EGG.3B.660.ZZM
	320/322/324	0.7	0.80	FGG.3B.555.ZZC	EGG.3B.655.ZZM
	326/330	0.7	0.80	FGG.3B.555.ZZC	EGG.3B.655.ZZM
4B 4K	304	3.0	2.90	FGG.4B.580.ZZC	EGG.4B.680.ZZM
	306/307	2.0	2.40	FGG.4B.575.ZZC	EGG.4B.675.ZZM
	310	1.6	1.90	FGG.4B.570.ZZC	EGG.4B.670.ZZM
	312	1.3	1.40	FGG.4B.565.ZZC	EGG.4B.665.ZZM
	316/320	0.9	1.10	FGG.4B.560.ZZC	EGG.4B.660.ZZM
	324/330	0.9	1.10	FGG.4B.560.ZZC	EGG.4B.660.ZZM
5B 5K	340/348	0.7	0.80	FGG.4B.555.ZZC	EGG.4B.655.ZZM
	304	4.0	4.00	FGG.5B.582.ZZC	EGG.5B.682.ZZM
	310	3.0	2.90	FGG.5B.580.ZZC	EGG.5B.680.ZZM
	314/316	2.0	2.40	FGG.5B.575.ZZC	EGG.5B.675.ZZM
	320	1.6	1.90	FGG.5B.570.ZZC	EGG.5B.670.ZZM
	330/340/348	1.3	1.40	FGG.5B.565.ZZC	EGG.5B.665.ZZM
	350/354/364	0.9	1.10	FGG.5B.560.ZZC	EGG.5B.660.ZZM

	Types	ø A (mm)	ø C (mm)	Contact part number	
				Male	Female
0B 0K	302/303	0.9	0.80	FGG.0B.561.ZZC	EGG.0B.661.ZZM
	302/303	0.9	0.45	FGG.0B.562.ZZC	EGG.0B.662.ZZM
	304/305	0.7	0.45	FGG.0B.556.ZZC	EGG.0B.656.ZZM
0S	302	0.9	0.80	FGG.0B.561.ZZC	EGG.0B.661.ZZM
	302	0.9	0.45	FGG.0B.562.ZZC	EGG.0B.662.ZZM
	304	0.7	0.45	FGG.0B.556.ZZC	EGG.0B.656.ZZM
1B 1K	302/303	1.3	1.10	FGG.1B.566.ZZC	EGG.1B.666.ZZM
	304/305	0.9	0.80	FGG.1B.561.ZZC	EGG.1B.661.ZZM
	306/307/308	0.7	0.45	FGG.1B.556.ZZC	EGG.1B.656.ZZM
1S	302	1.3	1.10	FGG.1B.566.ZZC	EGG.1B.666.ZZM
	304	0.9	0.80	FGG.1B.561.ZZC	EGG.1B.661.ZZM
2B 2K	302	2.0	1.90	FGG.2B.576.ZZC	EGG.2B.676.ZZM
	303	1.6	1.40	FGG.2B.571.ZZC	EGG.2B.671.ZZM
	304/305	1.3	1.10	FGG.2B.566.ZZC	EGG.2B.666.ZZM
	306/307	1.3	1.10	FGG.2B.566.ZZC	EGG.2B.666.ZZM
	304/305	1.3	0.80	FGG.2B.567.ZZC	EGG.2B.667.ZZM
	306/307	1.3	0.80	FGG.2B.567.ZZC	EGG.2B.667.ZZM
	308/310	0.9	0.80	FGG.2B.561.ZZC	EGG.2B.661.ZZM
	308/310	0.9	0.45	FGG.2B.562.ZZC	EGG.2B.662.ZZM
	312/314/316	0.7	0.45	FGG.2B.556.ZZC	EGG.2B.656.ZZM
	318/319	0.7	0.45	FGG.2B.556.ZZC	EGG.2B.656.ZZM
2S	306	1.3	1.10	FGG.2B.566.ZZC	EGG.2B.666.ZZM
	306	1.3	0.80	FGG.2B.567.ZZC	EGG.2B.667.ZZM
3B 3K	303/304/309	2.0	1.90	FGG.3B.576.ZZC	EGG.3B.676.ZZM
	305/306/307	1.6	1.40	FGG.3B.571.ZZC	EGG.3B.671.ZZM
	308/309/310	1.3	1.10	FGG.3B.566.ZZC	EGG.3B.666.ZZM
	312/314	0.9	1.10	FGG.3B.560.ZZC	EGG.3B.660.ZZM
	316/318	0.9	1.10	FGG.3B.560.ZZC	EGG.3B.660.ZZM
	312/314	0.9	0.80	FGG.3B.561.ZZC	EGG.3B.661.ZZM
	316/318	0.9	0.80	FGG.3B.561.ZZC	EGG.3B.661.ZZM
	316/318	0.9	0.45	FGG.3B.562.ZZC	EGG.3B.662.ZZM
	320/322/324	0.7	0.80	FGG.3B.555.ZZC	EGG.3B.655.ZZM
	326/330	0.7	0.80	FGG.3B.555.ZZC	EGG.3B.655.ZZM
4B 4K	306/307	2.0	1.90	FGG.4B.576.ZZC	EGG.4B.676.ZZM
	310	1.6	1.40	FGG.4B.571.ZZC	EGG.4B.671.ZZM
	312	1.3	1.10	FGG.4B.566.ZZC	EGG.4B.666.ZZM
	316/320	0.9	0.80	FGG.4B.561.ZZC	EGG.4B.661.ZZM
	324/330	0.9	0.80	FGG.4B.561.ZZC	EGG.4B.661.ZZM
	340/348	0.7	0.45	FGG.4B.556.ZZC	EGG.4B.656.ZZM
5B 5K	314/316	2.0	1.90	FGG.5B.576.ZZC	EGG.5B.676.ZZM
	320	1.6	1.90	FGG.5B.570.ZZC	EGG.5B.670.ZZM
	320	1.6	1.40	FGG.5B.571.ZZC	EGG.5B.671.ZZM
	330/340/348	1.3	1.40	FGG.5B.565.ZZC	EGG.5B.665.ZZM
	330/340/348	1.3	1.10	FGG.5B.566.ZZC	EGG.5B.666.ZZM
	350/354/364	0.9	0.80	FGG.5B.561.ZZC	EGG.5B.661.ZZM

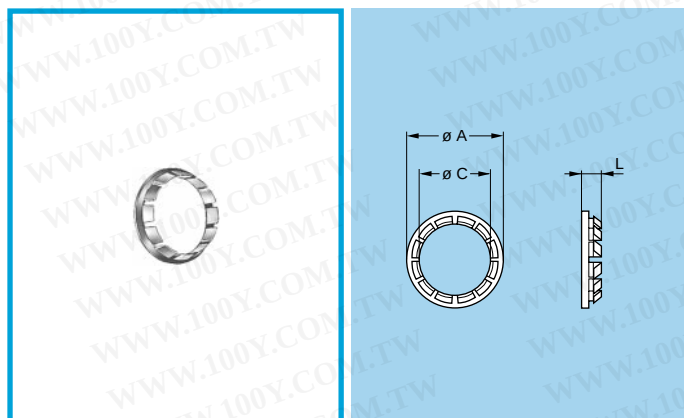


- Material: Nickel-plated bronze (3 μ m)

GBA Locking washers

Part number	Series	Dimensions (mm)		
		A	C	L
GBA.00.250.FN	00	9.5	7.1	1.0
GBA.0S.250.FN	0S-0B	12.5	9.1	1.0
GBA.1S.250.FN	1S-1B 1D	16.0	12.1	1.0
GBA.1E.250.FN	1E-1K	21.8	16.1	1.2
GBA.2S.250.FN	2S-2B 2C-2G	19.5	15.1	1.2
GBA.3S.250.FN	3S-3B	25.0	18.1	1.4
GBA.4S.250.FN	4S-4B	32.0	25.1	1.4

Note: to order this accessory separately, use the above part numbers.

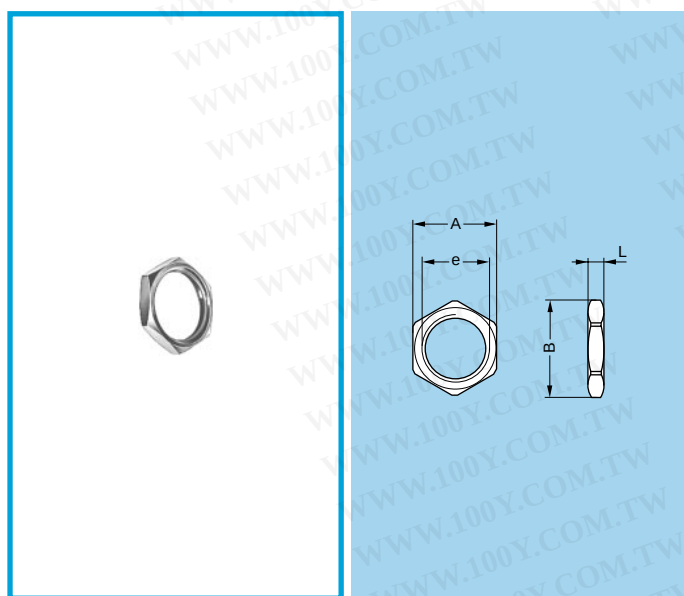


- Material: Nickel-plated brass (3 μ m)

GBB Tapered washers

Part number	Series	Dimensions (mm)		
		A	C	L
GBB.00.250.LN	00	9	7.1	2.0
GBB.0S.250.LN	0S-0B	11	9.1	2.5
GBB.1S.250.LN	1S-1B	15	12.1	3.5
GBB.2S.250.LN	2S-2B 2C-2G	18	15.1	4.0
GBB.3S.250.LN	3S-3B	22	18.1	4.5
GBB.4S.250.LN	4S-4B	28	25.2	5.0
GBB.5S.250.LN	5S-5B	40	35.2	7.5

Note: sockets of series 5B and 5S are always supplied with a tapered washer. To order this accessory separately, use the above part numbers.

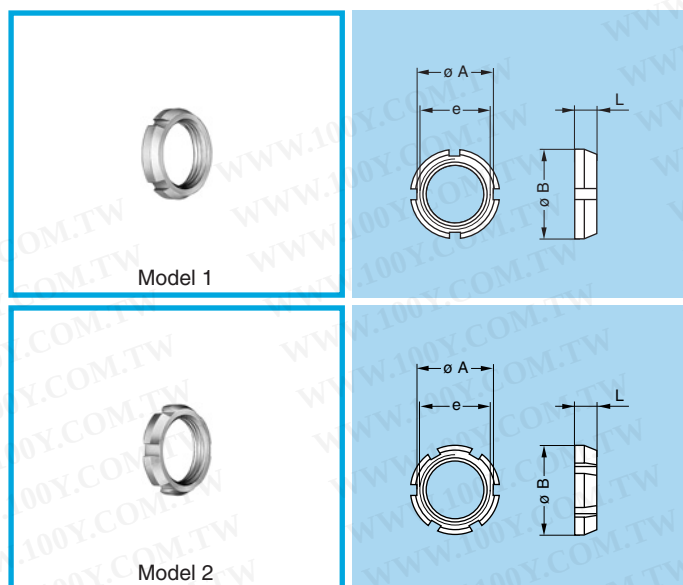


- Material:
 - Nickel-plated brass (3 μ m)
 - Natural anodized aluminium alloy
 - Stainless steel

GEA Hexagonal nuts

Part number	Series	Dimensions (mm)			
		A	B	e	L
GEA.00.240.LN	00	9	10.2	M7 x 0.50	2.0
GEA.0S.240.LN	0S-0B	11	12.4	M9 x 0.60	2.0
GEA.0S.241.LN	0S-0B	12	13.8	M10 x 0.75	2.5
GEA.0E.240.LN	0E-0K-0L 1S-1B	17	19.2	M14 x 1.00	2.5
GEA.1S.240.LN	1S-1B-1D	14	15.8	M12 x 1.00	2.5
GEA.1E.240.LN	1E-1K-1L 2S-2B	19	21.5	M16 x 1.00	3.0
GEA.2S.240.LN	2S-2B	17	19.2	M15 x 1.00	2.7
GEA.2E.240.LN	2E-2K-2L	24	27.0	M20 x 1.00	4.0
GEA.3S.240.LN	3S-3B	22	25.0	M18 x 1.00	3.0
GEA.3E.240.LN	3E-3K	30	34.0	M24 x 1.00	5.0
GEA.4S.240.LN	4S-4B	30	34.0	M25 x 1.00	5.0
GEA.4E.240.LN	4E-4K	36	40.5	M30 x 1.00	7.0

Note: to order this part separately, use the above part numbers. The last letters «LN» of the part number refer to the nut material and treatment. If a nut in aluminium alloy or stainless steel is desired, replace the last letters of the part number by «PT» or «AZ» respectively.

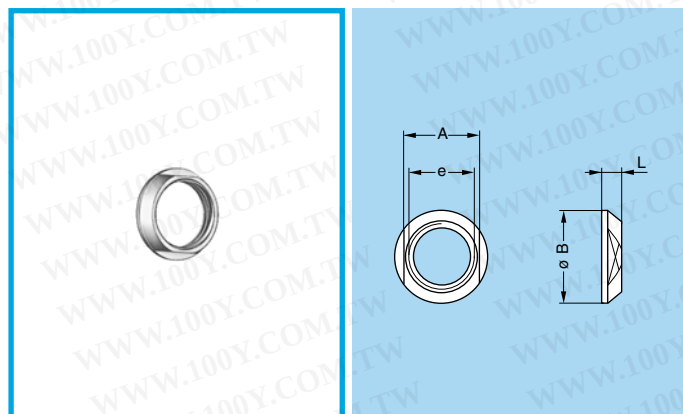


GEG Notched nut

Part number	Model	Dimensions (mm)			
		A	B	e	L
GEG.00.240.LC	1	8.6	10	M7 x 0.5	2.5
GEG.0S.240.LC	1	10.5	12	M9 x 0.6	2.5
GEG.0E.240.LC	1	15.8	18	M14 x 1.0	3.5
GEG.1S.240.LC	1	14.0	16	M12 x 1.0	3.5
GEG.1E.240.LC	2	17.5	20	M16 x 1.0	3.5
GEG.1S.242.LC	1	12.1	14	M11 x 0.5	3.5
GEG.2S.240.LC	2	17.5	20	M15 x 1.0	3.5
GEG.2S.241.LC	2	20.5	24	M19 x 1.0	3.5
GEG.2E.240.LC	2	22.5	25	M20 x 1.0	3.5

● Material: Chrome-plated brass (Ni 3 μ m + Cr 0.3 μ m)

Note: 00, 0B, 0S, 1B, 1S, 2B and 2S series fixed and free sockets for back panel mounting are always delivered with this notched nut. To order this accessory separately, use the above part numbers.

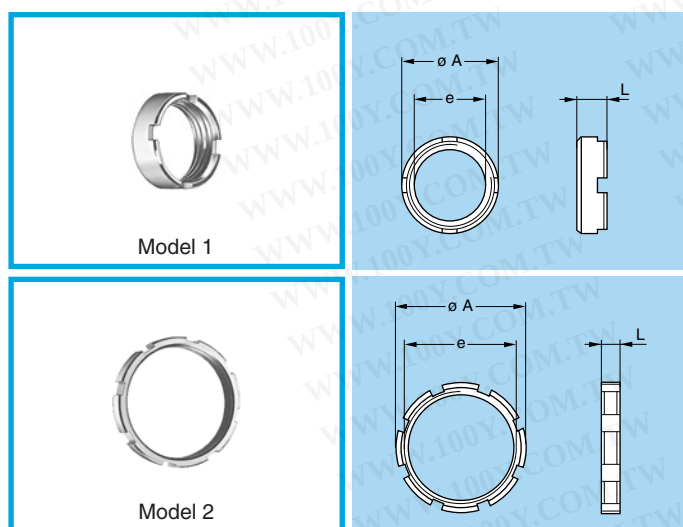


GEC Conical nuts

Part number	Dimensions (mm)			
	A	B	e	L
GEC.00.240.LC	8	10.0	M7 x 0.5	2.5
GEC.0S.240.LC	10	12.0	M9 x 0.6	2.5
GEC.0E.240.LC	16	18.0	M14 x 1.0	3.0
GEC.1S.240.LC	13	16.0	M12 x 1.0	3.2
GEC.1S.241.LC	17	20.0	M16 x 1.0	4.0
GEC.1S.242.LC	12	14.0	M11 x 0.5	3.2
GEC.2S.240.LC	17	20.0	M15 x 1.0	3.8
GEC.2S.241.LC	20	24.0	M19 x 1.0	5.8
GEC.2E.240.LC	22	25.0	M20 x 1.0	5.0
GEC.3S.240.LC	20	24.0	M18 x 1.0	4.5
GEC.3E.240.LC	27	30.0	M24 x 1.0	4.5
GEC.4S.240.LC	27	30.0	M25 x 1.0	4.5
GEC.4K.241.LC	32	35.5	M30 x 1.0	5.0
GEC.5S.240.LC	37	41.0	M35 x 1.0	5.0

● Material: Chrome-plated brass (Ni 3 μ m + Cr 0.3 μ m)

Note: 3B, 3K, 3S, 3E, 4B, 4K, 4S, 4E, 5B, 5K, 5S, 5E, 6S and 6E series fixed and free sockets for back panel mounting are always delivered with a conical nut. To order this accessory separately, use the part numbers in the adjacent table.



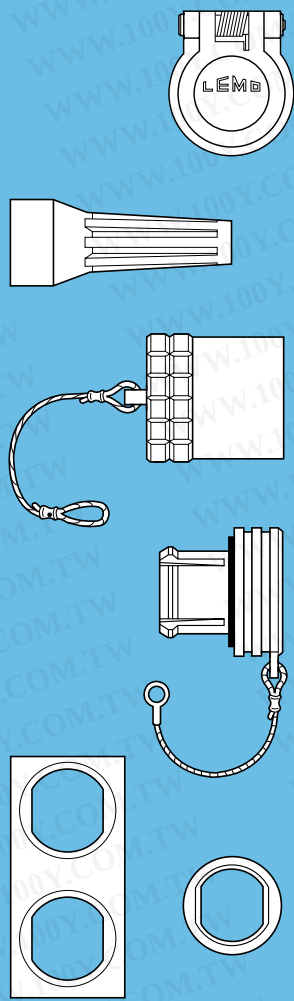
GEB Round nuts

Part number	Model	Dimensions (mm)		
		A	e	L
GEB.00.240.LN	1	9.0	M7 x 0.50	4.0
GEB.0S.240.LN	1	11.0	M9 x 0.60	4.0
GEB.0E.240.LN	1	18.0	M14 x 1.00	5.0
GEB.1S.240.LN	1	14.0	M12 x 1.00	5.0
GEB.1E.240.LN	1	20.0	M16 x 1.00	5.0
GEB.2S.240.LN	1	18.0	M15 x 1.00	5.5
GEB.2B.240.LN	1	17.5	M15 x 0.75	2.5
GEB.3S.240.LN	1	22.0	M18 x 1.00	5.5
GEB.4S.240.LN	1	28.0	M25 x 1.00	6.0
GEB.5S.240.LN	2	40.0	M35 x 1.00	8.0
GEB.5E.240.LN	2	54.0	M45 x 1.50	8.0
GEB.6S.241.LN	2	54.0	M48 x 1.50	8.0
GEB.6E.240.LN	2	65.0	M55 x 2.00	9.0

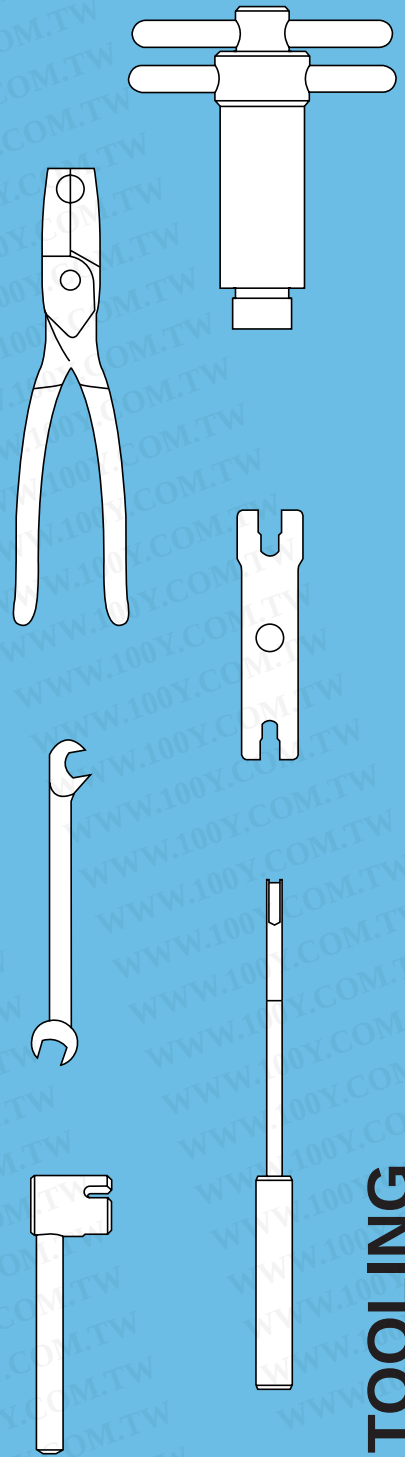
Note: 5B, 5K, 5S, 5E, 6S and 6E series sockets are always supplied with model 2 round nuts. To order this accessory separately, use the part numbers in the adjacent table.

● Material: Nickel-plated brass (3 μ m)

勝特力材料 886-3-5753170
勝特力电子(上海) 86-21-34970699
勝特力电子(深圳) 86-755-83298787
[Http://www.100y.com.tw](http://www.100y.com.tw)



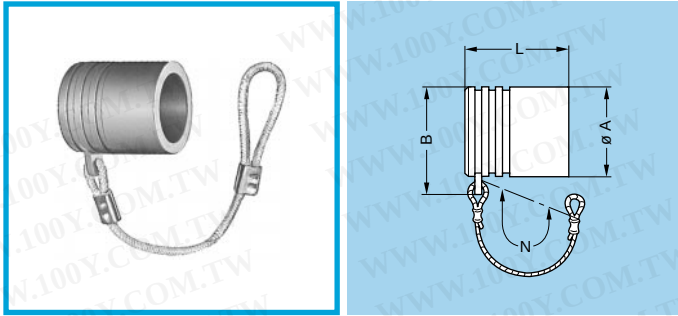
ACCESSORIES



TOOLING

Accessories

勝特力材料 886-3-5753170
 勝特力电子(上海) 86-21-34970699
 勝特力电子(深圳) 86-755-83298787
[Http://www.100y.com.tw](http://www.100y.com.tw)



- Body material: Polyoxymethylene (POM) grey (or black)
- Cord material: Polyamide 6, grey (or black)
- Gasket material: Silicone rubber
- Maximum operating temperature: 100°C
- Watertightness: IP61 according to IEC 60529

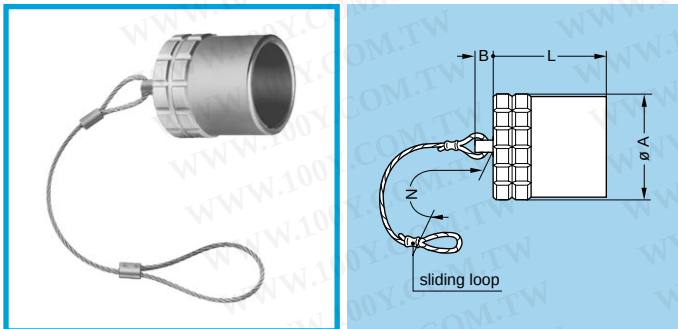
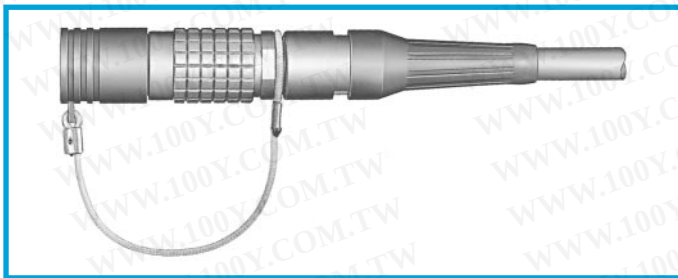
BFG Plug caps

Part number	Series	Dimensions (mm)			
		A	B	L	N
BFG.00.100.PCSG	00	7.5	9.8	10.0	60
BFG.0B.100.PCSG	0S-0B	9.5	12.0	12.2	85
BFG.1B.100.PCSG	1S-1B 1D	12.0	15.0	13.8	85
BFG.2B.100.PCSG	2S-2B	15.0	18.0	15.0	85
BFG.3B.100.PCSG	3S-3B	18.5	22.0	18.5	95

Note: this cap is available only with an alignment key (G). Upon request this cap can be supplied in black and the last letter «G» of the part number should be replaced with «N».

Fitting the cord

Slide the plug into the loop of the cord.
 Place the loop into the groove in front of the collet nut and tighten the loop.

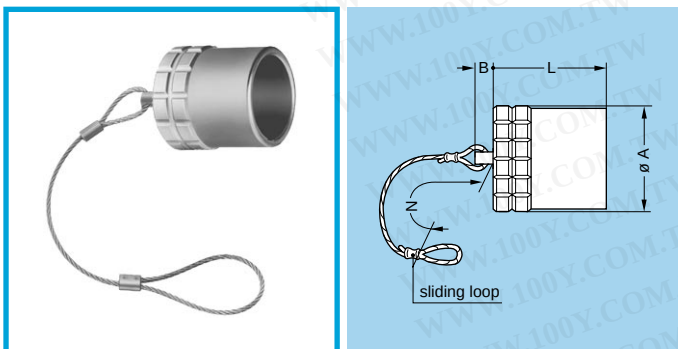


- Body material: Nickel-plated brass (Ni 3µm)
- Lanyard material: Stainless steel
- Crimp ferrule material: Nickel-plated brass + polyolefin
- O-ring material: Silicone rubber or FPM
- Maximum operating temperature: 135°C
- Watertightness: IP68 according to IEC 60529 for E series

BFA Plug caps

Part number	Series	Dimensions (mm)			
		A	B	L	N
BFA.0E.100.NAS	0E	14.0	6	12.5	85
BFA.1E.100.NAS	1E	16.0	6	15.5	85
BFA.2E.100.NAS	2E	19.5	6	17.5	85
BFA.3E.100.NAS	3E	23.0	6	22.0	120
BFA.4E.100.NAS	4E	29.0	10	22.5	120
BFA.4S.100.NAS	4S	25.0	10	22.2	120
BFA.5E.100.NAS	5E	44.0	10	27.0	150
BFA.5S.100.NAS	5S	36.0	10	30.2	150
BFA.6S.100.NAS	6S	46.0	10	33.0	150

Note: the last letter «S» of the part number stands for the material of the O-ring (silicone rubber). O-ring's made from FPM are also available; if required, replace the letter «S» by «V».



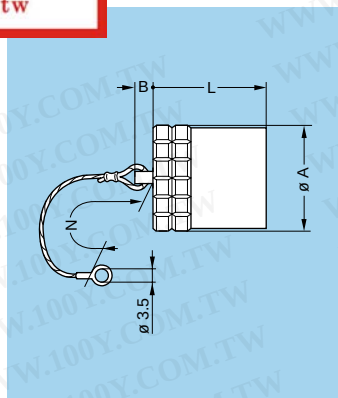
- Body material: Nickel-plated brass (Ni 3µm)
- Lanyard material: Stainless steel
- Crimp ferrule material: Nickel-plated brass + polyolefin
- O-ring material: Silicone rubber or FPM
- Maximum operating temperature: 135°C
- Watertightness: IP68 according to IEC 60529 for E and K series

BFG Plug caps with key (G)

Part number	Series	Dimensions (mm)			
		A	B	L	N
BFG.0K.100.NAS	0K-0L	14.0	6	12.5	85
BFG.1K.100.NAS	1K-1L	16.0	6	15.5	85
BFG.2K.100.NAS	2K-2L	19.5	6	17.5	85
BFG.3K.100.NAS	3K	23.0	6	22.0	120
BFG.4B.100.NAS	4B	25.0	10	20.2	120
BFG.4K.100.NAS	4K	29.0	10	22.5	120
BFG.5B.100.NAS	5B	36.0	10	27.2	150
BFG.5K.100.NAS	5K	44.0	10	27.0	150
BFG.6E.100.NAS	6E	54.0	10	31.0	150

Note: this cap is available only with an alignment key (G). The last letter «S» of the part number stands for the material of the O-ring (silicone rubber). O-ring's made from FPM are also available; if required, replace the letter «S» by «V».

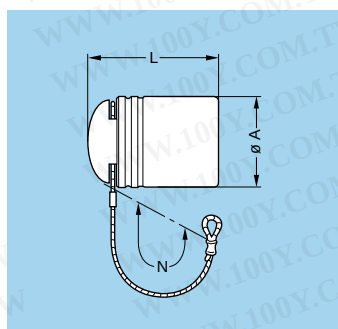
BHG Plug caps, nut fixing or flange



- Body material: Nickel-plated brass (Ni 3µm)
- Lanyard material: Stainless steel
- Crimp ferrule material: Nickel-plated brass + polyolefin
- O-ring material: Silicone rubber or FPM
- Maximum operating temperature: 135°C
- Watertightness: IP68 according to IEC 60529 for E and K series

Part number	Series	Dimensions (mm)			
		A	B	L	N
BHG.0K.100.NAS	0K-0L	14.0	6	12.5	85
BHG.1K.100.NAS	1K-1L	16.0	6	15.5	85
BHG.2K.100.NAS	2K-2L	19.5	6	17.5	85
BHG.3K.100.NAS	3K	23.0	6	22.0	120
BHG.4B.100.NAS	4B	25.0	10	20.2	120
BHG.4K.100.NAS	4K	29.0	10	22.5	120
BHG.5B.100.NAS	5B	36.0	10	27.2	150
BHG.5K.100.NAS	5K	44.0	10	27.0	150
BHG.6E.100.NAS	6E	54.0	10	31.0	150

Note: this cap is available only with an alignment key (G). The last letter «S» of the part number stands for the material of the O-ring (silicone rubber). O-ring's made from FPM are also available; if required, replace the letter «S» by «V».

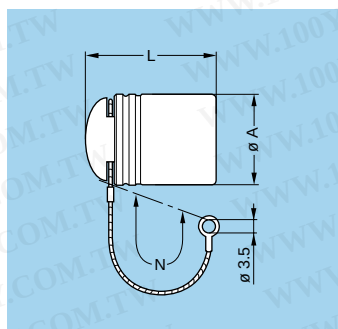


BFG Plug cap

Part number	Series	Dimensions (mm)		
		A	L	N
BFG.3K.100.EAN	3K	24	30	155

- Material: black EPDM
- Lanyard material: Stainless steel
- Crimp ferrule material: Nickel-plated brass + polyolefin

Note: These caps are suitable for use with any alignment key configuration.

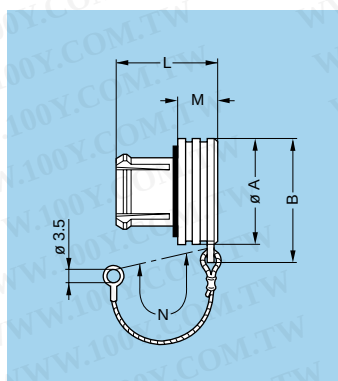


BHA Plug cap

Part number	Series	Dimensions (mm)		
		A	L	N
BHA.3K.100.EAN	3K	24	30	120

- Material: black EPDM
- Lanyard material: Stainless steel
- Crimp ferrule material: Nickel-plated brass + polyolefin

Note: These caps are suitable for use with any alignment key configuration.

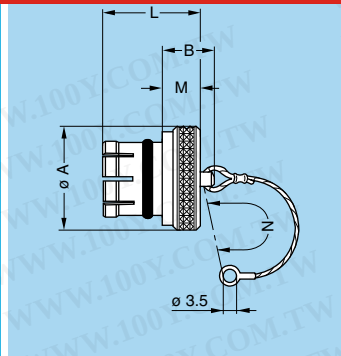


BRA Blanking caps for fixed sockets and free straight sockets

Part number	Series	Dimensions (mm)				
		A	B	L	M	N
BRA.00.200.PCSG	00	7.5	9.8	9.0	3.5	60
BRA.0B.200.PCSG	0S-0B	10.0	12.5	11.0	4.8	60
BRA.1B.200.PCSG	1S-1B 1D	14.0	17.0	13.5	5.6	60
BRA.2B.200.PCSG	2S-2B 2C-2G	18.0	21.0	14.5	6.0	60
BRA.3B.200.PCSG	3S-3B	22.0	25.5	17.0	7.0	60

Note: these caps are suitable for use with any alignment key configuration. On request this cap can be supplied in black. If so, replace the last letter «G» of the part number by «N».

- Body material: Polyoxymethylene (POM) grey (or black)
- Cord material: Polyamide 6, grey (or black)
- Gasket material: Silicone rubber
- Maximum operating temperature: 100°C
- Watertightness: IP61 according to IEC 60529

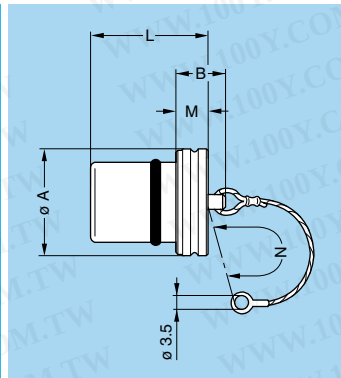


- Body material: Nickel-plated brass (Ni 3 µm)
- Lanyard material: Stainless steel
- Crimp ferrule material: Nickel-plated brass + polyolefin
- O-ring material: Silicone rubber or FPM
- Maximum operating temperature: 135°C
- Watertightness: IP61 according to IEC 60529 for S series

BRE Blanking caps for fixed sockets

Part number	Series	Dimensions (mm)					
		A	B	L	M	N	
BRE.00.200.NAS	00	8	7.5	8.8	3.5	60	
BRE.0S.200.NAS	0S-0B	10	9.5	10.5	4.5	85	
BRE.1S.200.NAS	1S-1B 1D	14	11.0	12.5	5.0	85	
BRE.2S.200.NAS	2S-2B	18	12.0	14.0	6.0	85	
BRE.3S.200.NAS	3S-3B	22	14.0	18.0	8.0	120	
BRE.4S.200.NAS	4S-4B	28	20.0	23.0	10.0	120	
BRE.5S.200.NAS	5S-5B	40	22.0	30.0	12.0	150	
BRE.6S.200.NAS	6S	54	22.0	30.0	12.0	150	
BRE.6E.200.NAS	6E	57	24.0	31.5	14.0	150	

Note: these caps are suitable for use with any alignment key configuration. The last letter «S» of the part number stands for the O-ring material (silicone rubber). O-ring's made from FPM are also available; if required, replace the letter «S» by «V».

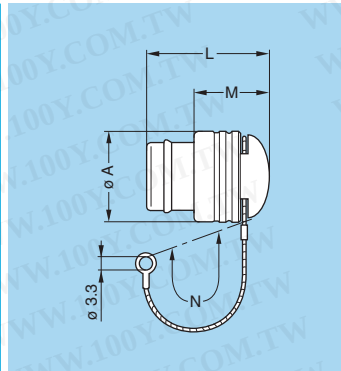


- Body material: Nickel-plated brass (Ni 3 µm)
- Lanyard material: Stainless steel
- Crimp ferrule material: Nickel-plated brass + polyolefin
- O-ring material: Silicone rubber or FPM
- Maximum operating temperature: 135°C
- Watertightness: IP68 according to IEC 60529

BRE Blanking caps for fixed sockets

Part number	Series	Dimensions (mm)					
		A	B	L	M	N	
BRE.0K.200.NAS	0K-0E-0L	15.0	10	15.0	4	85	
BRE.1K.200.NAS	1K-1E-1L	17.0	12	20.0	6	85	
BRE.2K.200.NAS	2K-2E-2L	20.5	14	24.0	8	85	
BRE.3K.200.NAS	3K-3E	24.0	14	28.0	8	120	
BRE.4K.200.NAS	4K-4E	30.0	20	30.5	10	120	
BRE.5K.200.NAS	5K-5E	44.0	22	37.0	12	150	

Note: these caps are suitable for use with any alignment key configuration. The last letter «S» of the part number stands for the O-ring material (silicone rubber). O-ring's made from FPM are also available; if required, replace the letter «S» by «V».

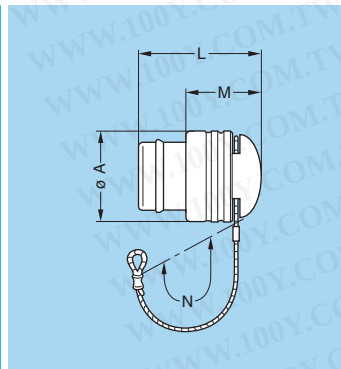


BRA Blanking caps for fixed sockets

Part number	Series	Dimensions (mm)			
		A	L	M	N
BRA.3K.200.EAN	3K	24	27	14.5	120
BRA.4K.200.EAN	4K	31	31	17.0	120

- Material: black EPDM
- Lanyard material: Stainless steel
- Crimp ferrule material: Nickel-plated brass + polyolefin

Note: These caps are suitable for use with any alignment key configuration.

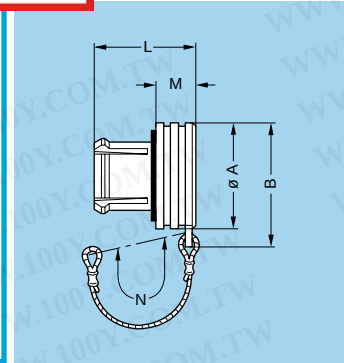


BRF Blanking caps for free sockets

Part number	Series	Dimensions (mm)			
		A	L	M	N
BRF.3K.200.EAN	3K	24	27	14.5	155

- Material: black EPDM
- Lanyard material: Stainless steel
- Crimp ferrule material: Nickel-plated brass + polyolefin

Note: These caps are suitable for use with any alignment key configuration.



- Body material: Polyoxymethylene (POM) grey (or black)
- Cord material: Polyamide 6, grey (or black)
- Gasket material: Silicone rubber
- Maximum operating temperature: 100°C
- Watertightness: IP61 according to IEC 60529

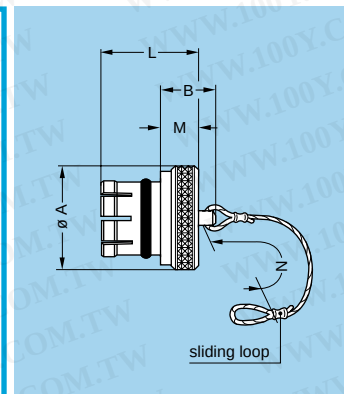
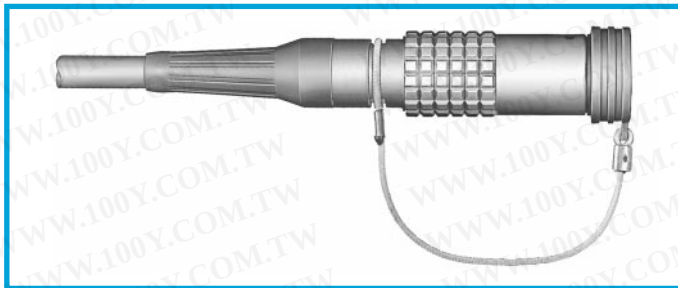
BRD Blanking caps for free sockets

Part number	Series	Dimensions (mm)				
		A	B	L	M	N
BRD.00.200.PCSG	00	7.5	9.8	9.0	3.5	85
BRD.0B.200.PCSG	0S-0B	10.0	12.5	11.0	4.8	85
BRD.1B.200.PCSG	1S-1B 1D	14.0	17.0	13.5	5.6	85
BRD.2B.200.PCSG	2S-2B	18.0	21.0	14.5	6.0	85
BRD.3B.200.PCSG	3S-3B	22.0	25.5	17.0	7.0	95

Note: on request this cap is available in black. If required, replace the last letter «G» of the part number by «N».

Fitting the cord

Slide the socket into the loop of the cord.
 Place the loop into the groove in front of the collet nut.
 Tighten the loop.

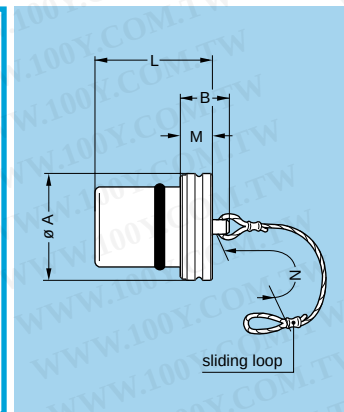
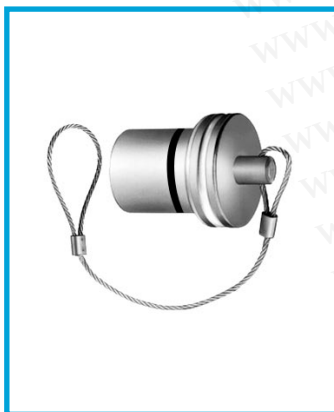


- Body material: Nickel-plated brass (Ni 3 µm)
- Lanyard material: Stainless steel
- Crimp ferrule material: Nickel-plated brass + polyolefin
- O-ring material: Silicone rubber or FPM
- Maximum operating temperature: 135°C
- Watertightness: IP61 according to IEC 60529 for S series

BRF Blanking caps for free sockets

Part number	Series	Dimensions (mm)				
		A	B	L	M	N
BRF.00.200.NAS	00	8	7.5	8.8	3.5	85
BRF.0S.200.NAS	0S-0B	10	9.5	10.5	4.5	85
BRF.1S.200.NAS	1S-1B 1D	14	11.0	12.5	5.0	85
BRF.2S.200.NAS	2S-2B	18	12.0	14.0	6.0	85
BRF.3S.200.NAS	3S-3B	22	14.0	18.0	8.0	120
BRF.4S.200.NAS	4S-4B	28	20.0	23.0	10.0	120
BRF.5S.200.NAS	5S-5B	40	22.0	30.0	12.0	150
BRF.6S.200.NAS	6S	54	22.0	30.0	12.0	150

Note: these caps are suitable for use with any alignment key configuration. The last letter «S» of the part number stands for the O-ring material (silicone rubber). O-ring's made from FPM are also available; if required, replace the letter «S» by «V».



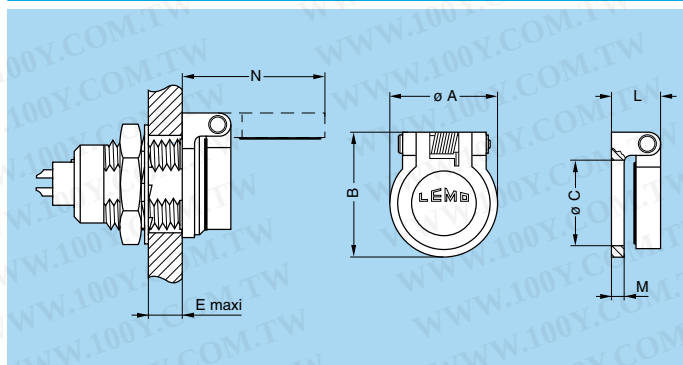
- Body material: Nickel-plated brass (Ni 3 µm)
- Lanyard material: Stainless steel
- Crimp ferrule material: Nickel-plated brass + polyolefin

BRF Blanking caps for free sockets

Part number	Series	Dimensions (mm)				
		A	B	L	M	N
BRF.0K.200.NAS	0K-0E-0L	15.0	10	15.0	4	85
BRF.1K.200.NAS	1K-1E-1L	17.0	12	20.0	6	85
BRF.2K.200.NAS	2K-2E-2L	20.5	14	24.0	8	85
BRF.3K.200.NAS	3K-3E	24.0	14	28.0	8	120
BRF.4K.200.NAS	4K-4E	30.0	20	30.5	10	120
BRF.5K.200.NAS	5K-5E	44.0	22	37.0	12	150

Note: these caps are suitable for use with any alignment key configuration. The last letter «S» of the part number stands for the O-ring material (silicone rubber). O-ring's made from FPM are also available; if required, replace the letter «S» by «V».

- O-ring material: Silicone rubber or FPM
- Maximum operating temperature: 135°C
- Watertightness: IP68 according to IEC 60529

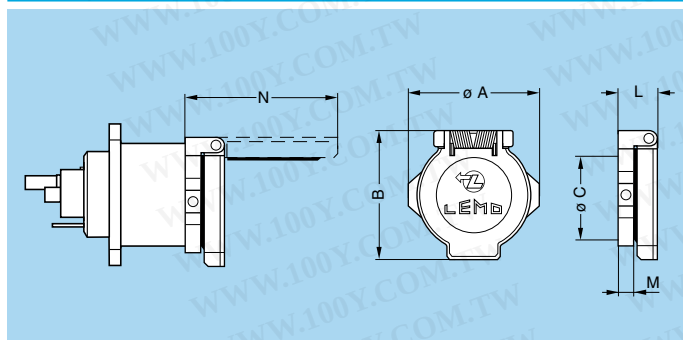


BRR Spring loaded dust caps for ERA, ERN and EG sockets or PSA and PK fixed sockets

Part number	Series	Dimensions (mm)						
		A	B	C	E	L	M	N
BRR.0S.200.PZSG	0S-0B	11.0	13.3	9.0	5.8	5.0	1.2	15.3
BRR.1S.200.PZSG	1S-1B 1D	14.2	17.1	12.0	6.0	6.3	1.5	20.3
BRR.2S.200.PZSG	2S-2B 2C-2G	18.6	22.4	15.2	6.5	8.2	2.0	26.2
BRR.3S.200.PZSG	3S-3B	22.5	26.5	18.2	9.0	8.8	2.5	30.8

Note: On request, this cap is available in black. If so replace the last letter «G» of the part number by «N».

- Body material: Polyoxymethylene (POM) grey (or black)
- Gasket material: Silicone rubber
- Spring material: Stainless steel
- Axes material: Nickel-plated brass
- Maximum operating temperature: 100°C
- Watertightness: IP61 according to IEC 60529

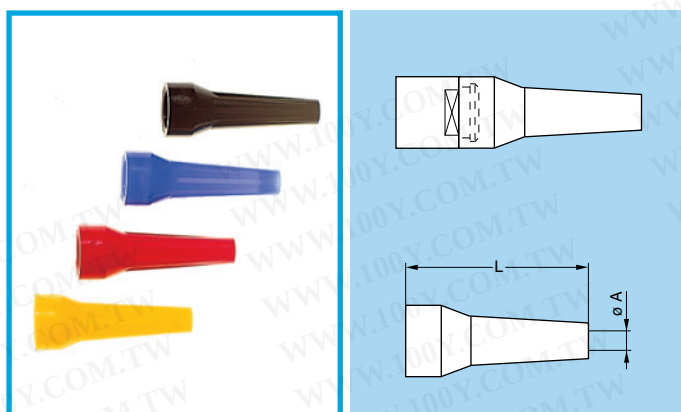


BRR Spring loaded dust cap for ED and EB fixed sockets

Part number	Series	Dimensions (mm)					
		A	B	C	L	M	N
BRR.3K.200.PZSG	3K	29	29	23	8.1	3	33.2

Note: Use Allen key (0.9 mm flat) to secure cap on connector.

- Cap material: Polyoxymethylene (POM) grey
- Body material: Nickel-plated brass
- Gasket material: Silicone rubber
- Spring material: Stainless steel
- Axes material: Nickel-plated brass
- Maximum operating temperature: 100°C
- Watertightness: IP61 according to IEC 60529



GM● Bend relief (Polyurethane)

A bend relief made from thermoplastic polyurethane elastomer (Desmopan 786) can be fitted over LEMO plugs and sockets that are supplied with nut for fitting such bend relief. They are available in nine different colours that match with the GRA insulating washers (see page 144). Use the part numbers shown below to order this accessory separately.



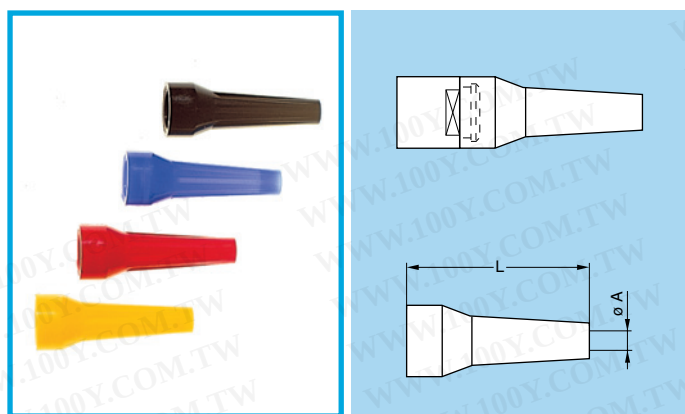
勝特力材料 886-3-5753170
 勝特力电子(上海) 86-21-34970699
 勝特力电子(深圳) 86-755-83298787
[Http://www.100y.com.tw](http://www.100y.com.tw)

Main characteristics

- Material: Polyurethane elastomer
- Temperature range in dry atmosphere: -40°C +80°C

Part number	Dimensions (mm)				Series	Part number of nut for fitting the bend relief	Note
	Bend relief		Cable ø				
	A	L	max.	min.			
GMA.00.012.DG	1.2	22	1.4	1.1	00	FFM.00.130.LC ¹⁾ FFM.00.131.LC ²⁾	¹⁾ For unipole connectors ²⁾ For multipole connectors The «GMD» are thin bend reliefs (for very flexible cables)
GMA.00.018.DG	1.8	22	2.1	1.8			
GMB.00.025.DG	2.5	22	2.8	2.5			
GMB.00.028.DG	2.8	22	3.1	2.8			
GMB.00.032.DG	3.2	22	3.5	3.2			
GMD.00.025.DG	2.5	22	2.8	2.5			
GMD.00.028.DG	2.8	22	3.1	2.8			
GMD.00.032.DG	3.2	22	3.5	3.2			
GMA.0B.025.DG	2.5	24	2.9	2.5	0B	FFM.0B.130.LC FFM.2B.132.LC ¹⁾	¹⁾ For use only with connectors from series 2B equipped with cable fixing type M and where a bend relief from series 0B is used.
GMA.0B.030.DG	3.0	24	3.4	3.0	0S	FFM.0S.130.LC	
GMA.0B.035.DG	3.5	24	3.9	3.5			
GMA.0B.040.DG	4.0	24	4.4	4.0	0E-0K-0L	FFM.0E.130.LC	
GMA.0B.045.DG	4.5	24	5.2	4.5			
GMA.1B.025.DG	2.5	30	2.9	2.5	1B-1D	FFM.1B.130.LC FFM.3B.131.LC ¹⁾	¹⁾ For use only with connectors from series 3B equipped with cable fixing type M and where a bend relief from series 1B is used.
GMA.1B.030.DG	3.0	30	3.4	3.0	1S	FFM.1S.130.LC	
GMA.1B.035.DG	3.5	30	3.9	3.5			
GMA.1B.040.DG	4.0	30	4.4	4.0			
GMA.1B.045.DG	4.5	30	4.9	4.5	1E-1K-1L	FFM.1E.130.LC	
GMA.1B.054.DG	5.4	30	6.0	5.4			
GMA.1B.065.DG	6.5	30	7.0	6.5			
GMA.2B.040.DG	4.0	36	4.5	4.0	2B	FFM.2B.130.LC FFM.4K.132.LC ¹⁾	¹⁾ For use only with connectors from series 4B equipped with cable fixing type M and where a bend relief from series 2B is used.
GMA.2B.045.DG	4.5	36	5.0	4.5	2S	FFM.2S.130.LC	
GMA.2B.050.DG	5.0	36	5.5	5.0			
GMA.2B.060.DG	6.0	36	6.5	6.0	2E-2K-2L	FFM.2E.130.LC	
GMA.2B.070.DG	7.0	36	7.7	7.0			
GMA.2B.080.DG	7.8	36	8.8	7.8	2C-2G	FFM.2C.130.LC	
GMA.3B.050.DG	4.5	42	5.2	4.5	3S	FFM.3S.130.LC	
GMA.3B.060.DG	6.0	42	6.9	6.0	3B	FFM.3B.130.LC	
GMA.3B.070.DG	7.0	42	7.9	7.0	3E-3K	FFM.3E.130.LC	
GMA.3B.080.DG	8.0	42	8.9	8.0			
GMA.3B.090.DG	9.0	42	10.0	9.0	4S	FFM.4S.130.LC	
GMA.4B.080.DG	8.0	60	9.0	8.0	4S	FFM.4S.130.LC	
GMA.4B.010.DG	10.0	60	10.9	10.0	4B	FFM.4B.130.LC	
GMA.4B.011.DG	11.0	60	11.9	11.0			
GMA.4B.012.DG	12.0	60	13.0	12.0	4E-4K	FFM.4E.130.LC	
GMA.4B.013.DG	13.5	60	14.5	13.5			

Note: the last letter «G» of the part number indicates the grey colour of the bend relief. For ordering a bend relief with another colour, see table on page 142 and replace the letter «G» by the letter of the required colour.
 See also detailed information for each series: B series on page 54; K series on page 54; S series on page 107; E series on page 107.



GMA Bend relief (Silicone)

A bend relief has been designed for connectors used in applications at high temperature or requiring vapour sterilization.

These bend reliefs are different from previous ones as for their material, a silicone elastomer which is noted for its retention of flexibility over a wide temperature range. They are available in nine colours.

Use the part numbers shown below to order this accessory separately.

勝特力材料 886-3-5753170
 勝特力电子(上海) 86-21-34970699
 勝特力电子(深圳) 86-755-83298787
[Http://www.100y.com.tw](http://www.100y.com.tw)

Main characteristics

- Material: Silicone elastomer VMQ
- Temperature range in dry atmosphere: -60°C +200°C
- Temperature range in water steam: +140°C

Part number	Dimensions (mm)				Series	Part number of nut for fitting the bend relief	Note
	Bend relief		Cable ø				
	A	L	max.	min.			
GMA.0B.025.RG	2.5	27	2.9	2.5	0B	FFM.0B.130.LC	1) For use only with connectors from series 2B equipped with cable fixing type M and where a bend relief from series 0B is used.
GMA.0B.030.RG	3.0	27	3.4	3.0		FFM.2B.132.LC 1)	
GMA.0B.035.RG	3.5	27	3.9	3.5	0S	FFM.0S.130.LC	
GMA.0B.040.RG	4.0	27	4.4	4.0			
GMA.0B.045.RG	4.5	27	5.2	4.5	0E-0K-0L	FFM.0E.130.LC	
GMA.1B.025.RG	2.5	34	2.9	2.5	1B-1D	FFM.1B.130.LC	1) For use only with connectors from series 3B equipped with cable fixing type M and where a bend relief from series 1B is used.
GMA.1B.030.RG	3.0	34	3.4	3.0		FFM.3B.131.LC 1)	
GMA.1B.035.RG	3.5	34	3.9	3.5	1S	FFM.1S.130.LC	
GMA.1B.040.RG	4.0	34	4.4	4.0			
GMA.1B.045.RG	4.5	34	5.0	4.5	1E-1K-1L	FFM.1E.130.LC	
GMA.1B.051.RG	5.1	34	5.6	5.1			
GMA.1B.057.RG	5.7	34	6.2	5.7			
GMA.1B.063.RG	6.3	34	7.0	6.3			
GMA.2B.040.RG	4.0	41	4.4	4.0	2B	FFM.2B.130.LC	1) For use only with connectors from series 4B equipped with cable fixing type M and where a bend relief from series 2B is used.
GMA.2B.045.RG	4.5	41	5.0	4.5		FFM.4K.132.LC 1)	
GMA.2B.051.RG	5.1	41	5.6	5.1	2S	FFM.2S.130.LC	
GMA.2B.057.RG	5.7	41	6.2	5.7			
GMA.2B.063.RG	6.3	41	7.0	6.3	2E-2K-2L	FFM.2E.130.LC	
GMA.2B.071.RG	7.1	41	7.9	7.1			
GMA.2B.080.RG	8.0	41	9.0	8.0	2C-2G	FFM.2C.130.LC	

Note: the last letter «G» of the part number indicates the grey colour of the bend relief. For ordering a bend relief with another colour, see table on page 142 and replace the letter «G» by the letter of the required colour.

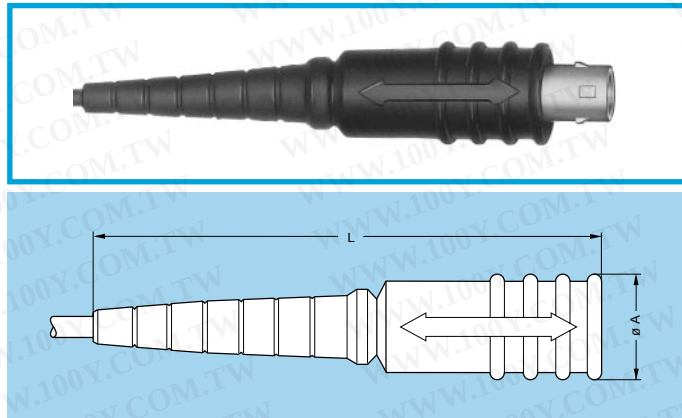
See also detailed information for each series: B series on page 54; K series on page 54; S series on page 107; E series on page 107.

Note: the selection of pigments, which should remain stable at high temperature, is limited by the new regulations. For this reason, some colours will be a shade different from those used for Desmopan bend reliefs. The selected solutions represent the best possible compromise.

Ref.	Colour	Ref.	Colour
A	blue	N	black
B	white	R	red
G	grey	S	orange
J	yellow	V	green
M	brown		

GM Overall bend relief for plugs and sockets

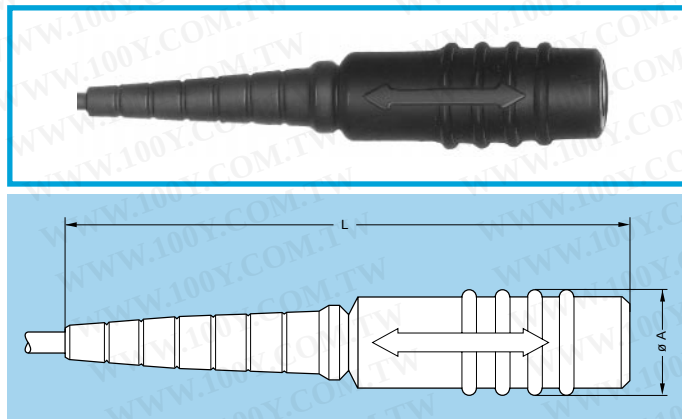
Overall bend reliefs, type GMF for plugs and GMP for sockets offer optimum protection against mechanical damage and give a protection index of IP65 according to IEC 60529 (mated position). These bend reliefs slide easily over the connector shell and are positioned by slightly pressing the bend relief backnut. The special design of the bend relief for plug provides for easy use of the push-pull self-latching system.



GMF Bend relief for straight plug

Part number	Series	Dimensions (mm)			
		Bend relief		Cable Ø	
		A	L	max.	min.
GMF.0B.035.060EN	0S-0B	11.0	60.5	3.5	1.0
GMF.1B.062.072EN	1S-1B	16.0	72.0	6.2	2.5
GMF.2B.082.095EN	2S-2B	22.0	95.0	8.2	5.0

- Material: Elastomer rubber black colour
- Operating temperature: -30°C to +120°C



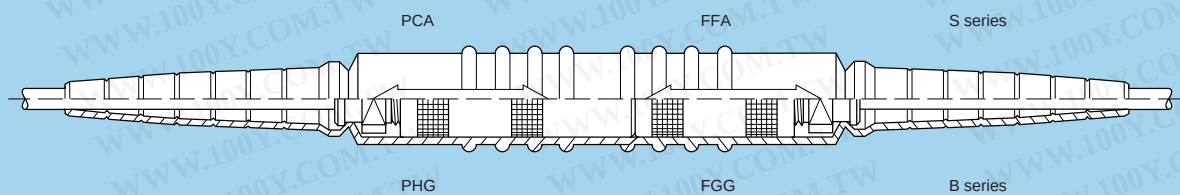
GMP Bend relief for free socket

Part number	Series	Dimensions (mm)			
		Bend relief		Cable Ø	
		A	L	max.	min.
GMP.0B.035.069EN	0S-0B	11.0	69.0	3.5	1.0
GMP.1B.062.079EN	1S-1B	16.0	80.0	6.2	2.5
GMP.2B.082.102EN	2S-2B	21.0	102.5	8.2	5.0

- Material: Elastomer rubber black colour
- Operating temperature: -30°C to +120°C

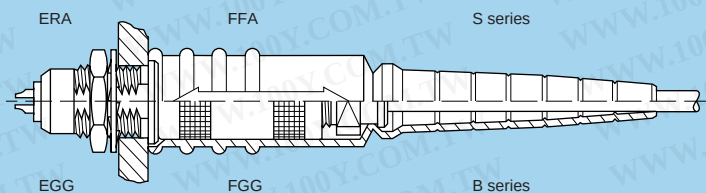
- The overall bend relief shall be installed over plug or free socket fitted with a nut for bend relief.
- The typical applications are shown below.
- The overall bend relief can be cut at different length depending on cable diameter.

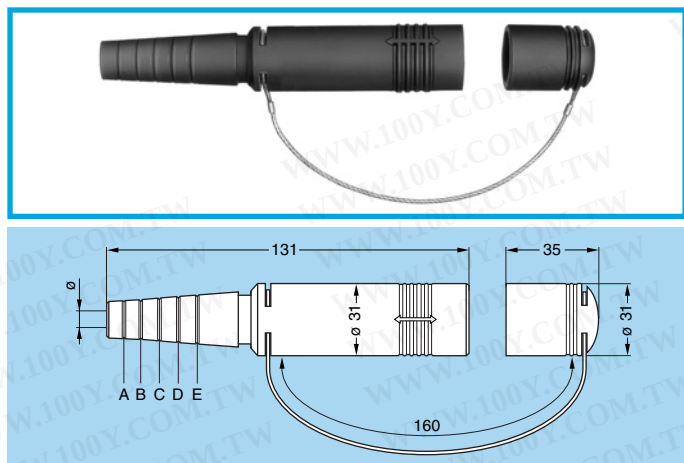
Plug-free socket



Plug-fixed socket

Optimum protection is offered only when using front panel mounting fixed sockets

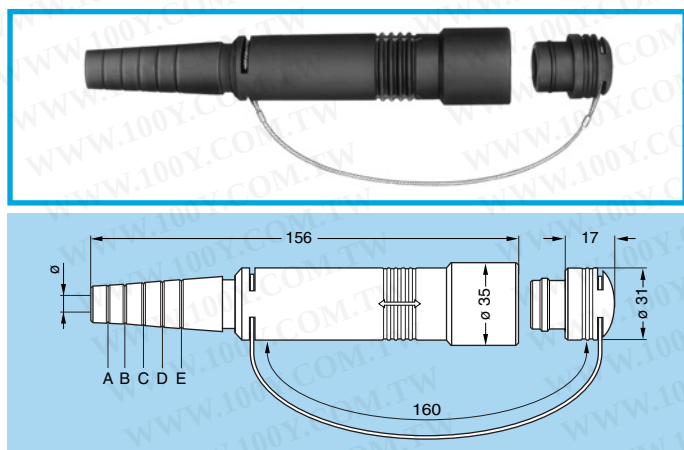




GMF Bend relief with cap for plug

Part number	Series	For models	Cut	admissible ϕ (mm)	
				min.	max.
GMF.4K.080.EANZ	4E	FFA	—	8.0	8.9
			A	9.0	9.9
			B	10.0	11.4
	4K	FGG	C	11.5	12.9
			D	13.0	14.9
			E	15.0	16.5

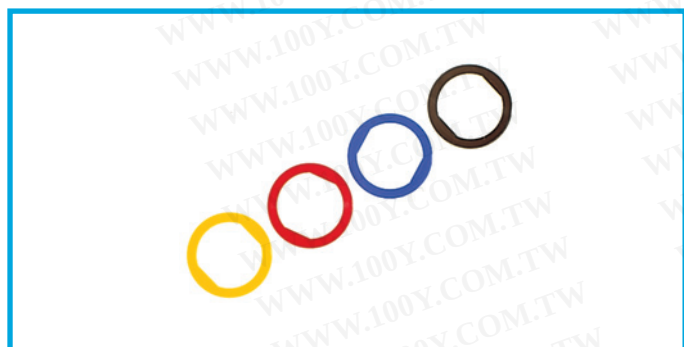
● Material: Black EPDM



GMP Bend relief with cap for free socket

Part number	Series	For models	Cut	admissible ϕ (mm)	
				min.	max.
GMP.4K.080.EANZ	4E	PCA	—	8.0	8.9
			A	9.0	9.9
			B	10.0	11.4
	4K	PHG	C	11.5	12.9
			D	13.0	14.9
			E	15.0	16.5

● Material: Black EPDM



GRA Insulating washers

Sockets or plugs mounted on panels can be fitted with insulating washers. The nine colours available combined with those for the bend reliefs makes colour coding possible.

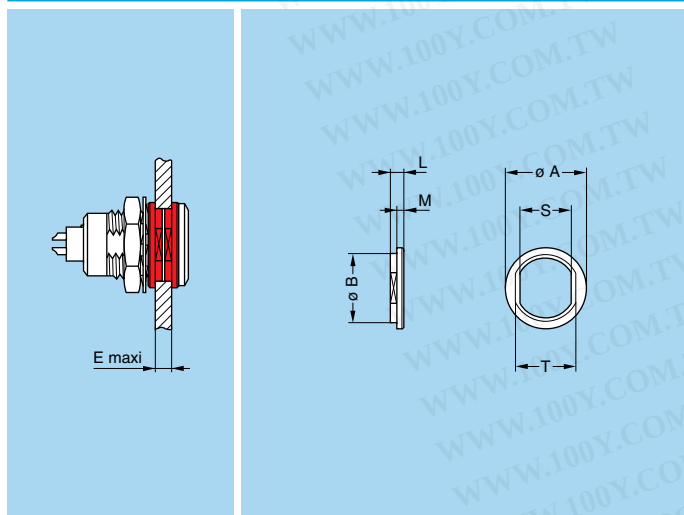
Part number	Series	Dimensions (mm)						
		A	B	E	L	M	S	T
GRA.00.269.GG	00	10.0	8.8	4.5	1.8	1.0	6.4	8.0
GRA.0S.269.GG	0S-0B	12.0	10.8	6.0	1.8	1.0	8.3	9.9
GRA.1S.269.GG	1S-1B	16.0	13.8	6.5	1.8	1.0	10.6	12.2
GRA.2S.269.GG	2S-2B	21.1	17.9	7.3	2.3	1.3	13.6	16.2
GRA.3S.269.GG	3S-3B	25.0	21.8	10.3	2.2	1.2	16.7	20.2
GRA.4S.269.GG	4S-4B	31.9	28.7	10.5	2.5	1.5	23.6	27.1

Note: insulating washers for series 5B are available on request.

Caution: these insulating washers can be used with fixed and free sockets with across flat dimension S1 equivalent to the S dimension of the washer.

Ref.	Colour	Ref.	Colour
A	blue	N	black
B	white	R	red
G	grey	S	orange
J	yellow	V	green
M	brown		

Note: the last letter «G» of the part number indicates the colour grey for the insulating washer. To obtain an insulating washer of another colour, refer to the table above and change the letter «G» of the part number to the corresponding letter of the colour required. For the panel cut-out, please consult chapter «Panel cut-out» on page 153.



- Material: Polyamide
- Maximum operating temperature: 90° C



GRC Double panel washers

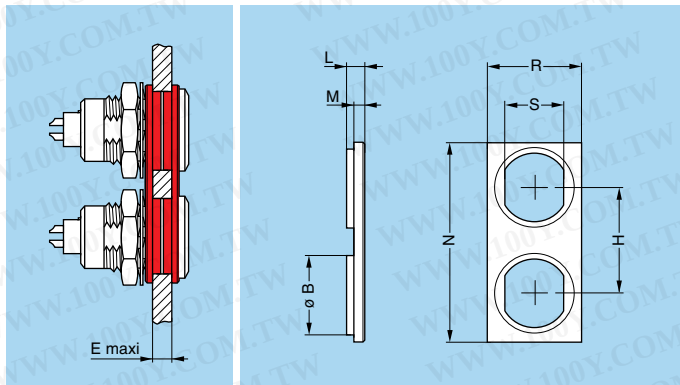
Double panel washers have been designed to make the drilling of panel holes easier for mounting fixed and free sockets. The combination of the nine different colours of the double panel washers and of the bend reliefs makes colour coding possible.

Part number	Series	Dimensions (mm)							
		B	E	H	L	M	N	R	S
GRC.0S.260.HG	0S-0B	10.9	5	14	2.5	1.5	26.5	12.5	8.3
GRC.1B.260.HG	1S-1B	13.9	5	20	3.3	1.8	34.5	14.5	10.6

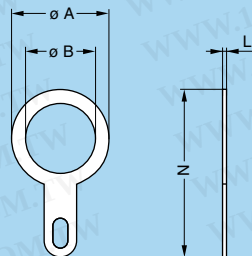
Caution: these double panel washers can be used with fixed or free sockets with across flat dimension S1 equivalent to the S dimension of the washer.

Ref.	Colour	Ref.	Colour
A	blue	N	black
B	white	R	red
G	grey	S	orange
J	yellow	V	green
M	brown		

Note: the last letter «G» of the washer's part number indicates the colour grey. For other colours, refer to the above table and replace letter «G» by the one corresponding to the colour required.
 For the panel cut-out, please consult chapter «Panel cut-out» on page 153.



- Material: Polyamide
- Maximum operating temperature: 90° C



GCA Earthing washer

Part number	Series	Dimensions (mm)			
		A	B	L	N
GCA.00.255.LT	00	9.5	7.1	0.4	18.2
GCA.0S.255.LT	0S-0B	13.0	9.1	0.4	22.0
GCA.0E.255.LT	0E-0K	17.0	14.1	0.5	27.5
GCA.1S.255.LT	1S-1B	17.0	12.2	0.5	27.5
GCA.1E.255.LT	1E-1K	20.0	16.2	0.5	32.0
GCA.2S.255.LT	2S-2B	20.0	15.2	0.5	32.0
GCA.2E.255.LT	2E-2K	25.0	20.2	0.5	39.0
GCA.3S.255.LT	3S-3B	25.0	18.2	0.5	39.0
GCA.4S.255.LT	4S-4B	35.0	25.6	0.6	50.0
GCA.4E.255.LT	4E-4K	35.0	30.6	0.6	50.0
GCA.5S.255.LT	5S-5B	42.0	35.1	0.3	57.5

- Material: CuSnZn plated brass (2 µm)

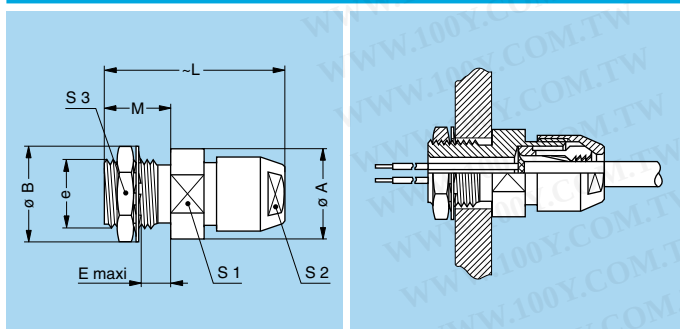


GSC Lead-through with cable collet

Part number	Dimensions (mm)								
	A	B	e	E	L	M	S1	S2	S3
GSC.00.290.CD●●	6.5	8.1	M5x0.5	1.5	16	4.0	5	6	7
GSC.1S.290.ND●●	12.0	12.5	M9x0.6	5.0	26	7.5	11	9	11
GSC.3S.290.ND●●	17.0	19.5	M15x1.0	8.1	30	12.0	—	14	17

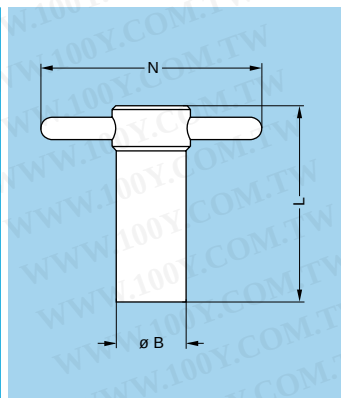
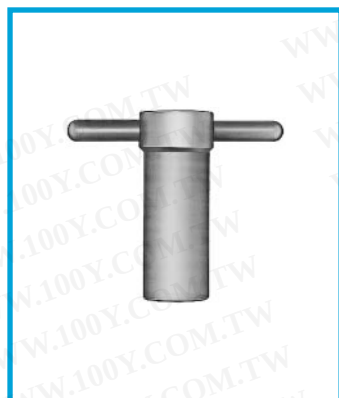
Note: ●● = collet cable diameter of the B series. For cable diameter refer to page 52.

The cable collet system stands for both screened and unscreened cables. It can be delivered with a nut for fitting a bend relief if you add a «Z» at the end of the part number.



Tooling

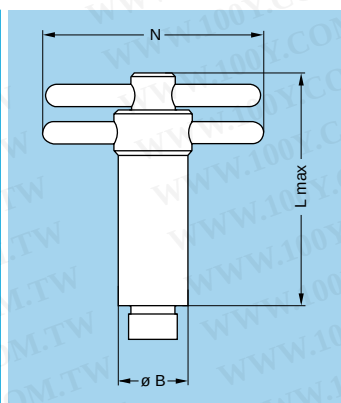
勝特力材料 886-3-5753170
 勝特力电子(上海) 86-21-34970699
 勝特力电子(深圳) 86-755-83298787
[Http://www.100y.com.tw](http://www.100y.com.tw)



DCG Spanners for hexagonal nuts

Part number	Dimensions (mm)			Part number of the nut
	B	L	N	
DCG.91.149.0TN	14	40	50	GEA.00.240.LN
DCG.91.161.1TN	16	45	52	GEA.0S.240.LN
DCG.91.201.4TN	20	52	65	GEA.1S.240.LN
DCG.91.231.7TN	23	62	68	GEA.2S.240.LN
DCG.91.282.2TN	28	76	73	GEA.3S.240.LN

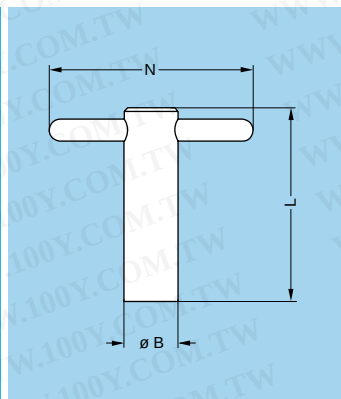
● Material: blackened steel



DCA Spanners for hexagonal nuts with locator for flats on socket thread

Part number	Dimensions (mm)			Part number of the nut
	B	L	N	
DCA.91.149.0TN	14	65	50	GEA.00.240.LN
DCA.91.161.1TN	16	73	52	GEA.0S.240.LN
DCA.91.201.4TN	20	85	65	GEA.1S.240.LN
DCA.91.231.7TN	23	100	68	GEA.2S.240.LN
DCA.91.282.2TN	28	120	73	GEA.3S.240.LN

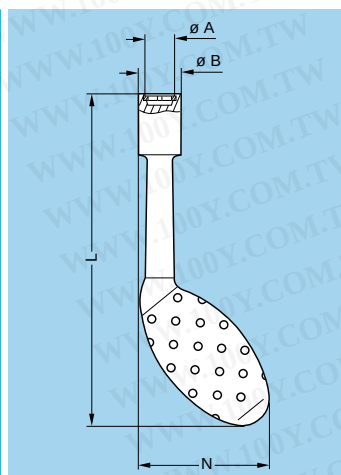
● Material: blackened steel



DCB Spanners for round nuts

Part number	Dimensions (mm)			Part number of the nut
	B	L	N	
DCB.91.119.0TN	11	40	50	GEB.00.240.LN
DCB.91.131.1TN	13	45	50	GEB.0S.240.LN
DCB.91.161.4TN	16	52	65	GEB.1S.240.LN
DCB.91.201.8TN	20	62	65	GEB.2S.240.LN
DCB.91.242.2TN	24	76	70	GEB.3S.240.LN

● Material: blackened steel

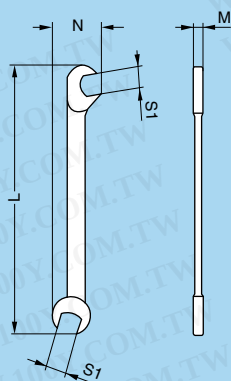


DCH Spanners for conical nut

Part number	Dimensions (mm)				Part number of the nut
	A	B	L	N	
DCH.91.101.PN	10.1	12.8	124	48.3	GEC.00.240.LC
DCH.91.121.PN	12.1	14.8	124	49.3	GEC.0S.240.LC
DCH.91.161.PN	16.1	21.0	124	51.9	GEC.1S.240.LC
DCH.91.201.PN	20.1	22.8	129	53.5	GEC.2S.240.LC

● Material: dark grey polyurethane

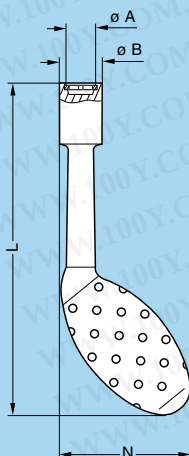
DCP Flat spanners for collet nut



Part number	Dimensions (mm)			
	L	M	N	S1
DCP.99.040.TC	70	0.95	10.5	4.0
DCP.99.045.TC	70	2.00	10.5	4.5
DCP.99.050.TC	78	2.00	12.6	5.0
DCP.99.055.TC	78	2.00	12.6	5.5
DCP.99.060.TC	78	2.00	12.6	6.0

- Material: chrome-plated steel

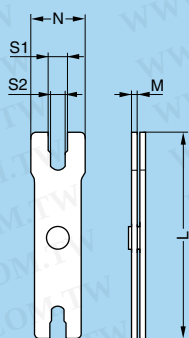
DCH Spanners for notched nuts



Part number	Dimensions (mm)				Part number of the nut
	A	B	L	N	
DCH.91.101.PA	10.1	12.8	124	48.3	GEG.00.240.LC
DCH.91.121.PA	12.1	14.8	124	49.3	GEG.0S.240.LC
DCH.91.181.PA	18.1	22.8	129	53.1	GEG.0E.240.LC
DCH.91.161.PA	16.1	21.0	124	51.2	GEG.1S.240.LC
DCH.91.201.PA	20.1	22.8	129	53.5	GEG.1E.240.LC
DCH.91.141.PA	14.1	18.6	124	51.2	GEG.1S.242.LC
DCH.91.201.PA	20.1	22.8	129	53.5	GEG.2S.240.LC
DCH.91.241.PA	24.1	30.8	134	52.6	GEG.2S.241.LC
DCH.91.251.PA	25.1	32.8	134	55.5	GEG.2E.240.LC

- Material: blue polyurethane

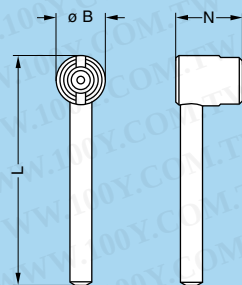
DCP Set of flat spanners for collet nuts



Part number	Series	Dimensions (mm)				
		L	M	N	S1	S2
DCP.91.001.TN	0B	95	2.5	21	8.1	7.1
	1B	95	2.5	25	10.1	9.1
DCP.91.023.TN	2B-2K	115	3.0	30	13.1	12.1
	3B-3K	115	3.0	35	15.1	14.1
DCP.91.045.TN	4B	130	3.5	40	21.2	20.2
	5B	130	3.5	45	31.2	30.2

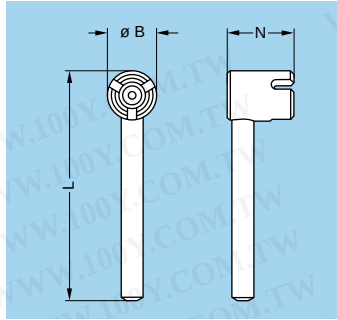
- Material: blackened steel

DCL Spanners for assembling plugs with 2 latches



Part number	Series	Dimensions (mm)		
		B	L	N
DCL.91.105.0TK	00	10	45	13.5
DCL.91.127.0TK	0S	12	47	17.0
DCL.91.149.0TK	1S	14	52	19.0

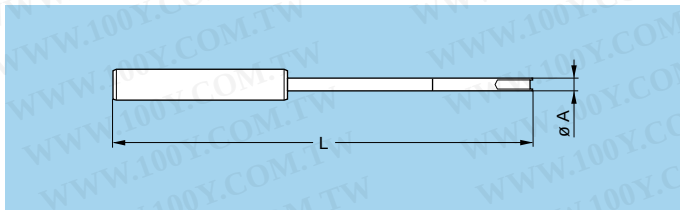
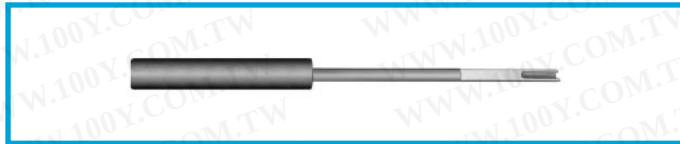
- Material: blackened steel



DCN Spanners for assembling plugs with 3 latches

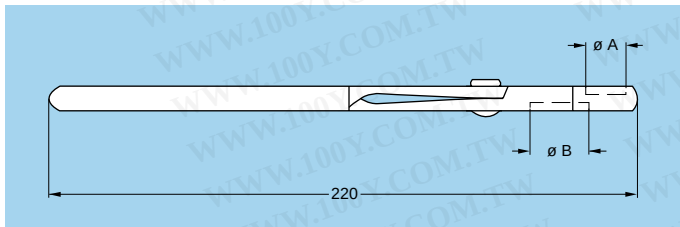
Part number	Series	Dimensions (mm)		
		B	L	N
DCN.91.905.0TK	00	9	42	12
DCN.91.125.0TK	0S	12	47	17
DCN.91.149.0TK	1S	14	53	19
DCN.91.171.2TK	2S-2C	17	63	20
DCN.91.201.5TK	3S	20	74	22

● Material: blackened steel



DCL Assembly tool for FVB.00.303.NLA plugs

Part number	Series	Dim. (mm)	
		A	L
DCL.91.516.5TK	00	5	165

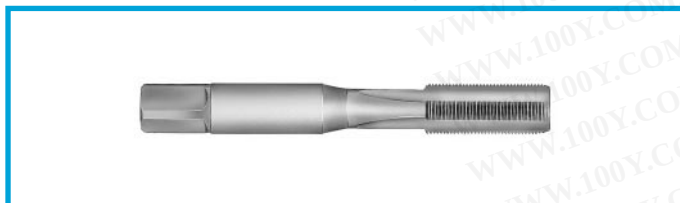
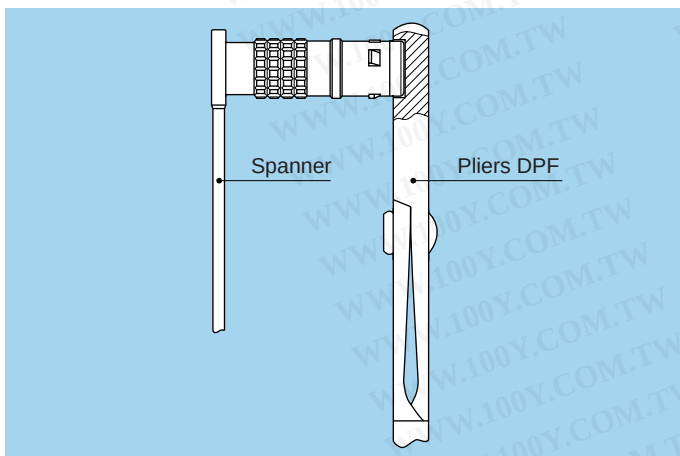


DPF Pliers for assembling plugs (series K, E and L)

Part number	Series	Dimensions (mm)	
		A	B
DPF.91.001.TA	0E-0K-0L	10	—
	1E-1K-1L	—	12
DPF.91.023.TA	2E-2K-2L	15	—
	3E-3K	—	18

Example for use

The plug end must be held in the pliers whilst the nut is tightened with the flat spanner.



DTA Taps

Part number	Series	Thread
DTA.99.700.5Z	00	M7 x 0.5
DTA.99.900.6Z	0S-0B	M9 x 0.6

Crimping tools for electrical contacts

Fig. A



Fig. B



Manual crimping tools

Supplier	Part number		
	contact $\varnothing$ 0.5-0.7 0.9-1.3 (Fig. A)	contact $\varnothing$ 1.6-2.0 (Fig. B)	contact $\varnothing$ 3.0-4.0 (Fig. B)
LEMO	DPC.91.701.V ¹⁾	DPC.91.101.A ²⁾	DPC.91.102.V
DANIELS	MH860 ¹⁾	AF8 ²⁾	M300BT
ASTRO	616336 ¹⁾	615708 ²⁾	—

¹⁾ According to specification MIL-C-22520/7-01.

²⁾ According to specification MIL-C-22520/1-01.



Pneumatic crimping tools

Supplier	Part number
LEMO	DPC.91.701.C
BALMAR	85230
BUCHANAN	621101

According to specification
 MIL-C-22520/7-01.
 For LEMO contacts $\varnothing$ 0.5-0.7-0.9-1.3 mm



male



female

These positioners are suitable for use with both manual and pneumatic crimping tools according to the MIL-C-22520/7-01 standard.

Fig. 1

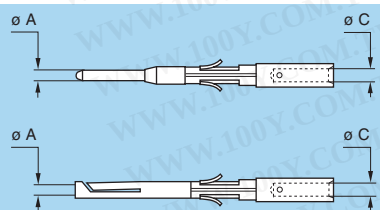
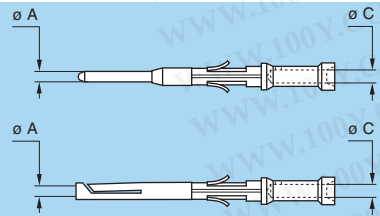


Fig. 2



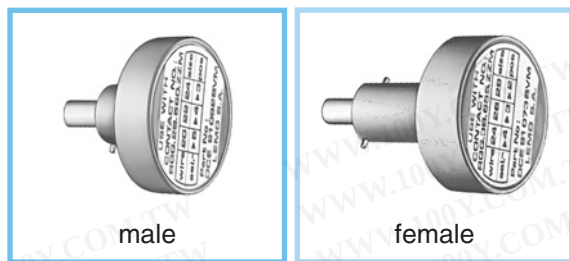
Note: a wide variation of strand number and diameter combinations are quoted as being AWG, some of which do not have a large enough cross section to guarantee a crimp as per either MIL-C-22520/1-01 or /7-01. Our technical department is at your disposal to study and propose a solution to all your applications.

DCE Positioners for crimp contacts $\varnothing$ 0.5-0.7-0.9 and 1.3 mm

Connector + Contact					Positioners part number	
Type	$\varnothing$ A	$\varnothing$ C	$\varnothing$ D	Conductor AWG	For male contact	For female contact
00	302	0.5	0.45	1	DCE.91.050.0VC	DCE.91.050.0VM
	303					
	304					
0B 0K 0S	302 ¹⁾	0.9	1.10	1	DCE.91.090.BVC	DCE.91.090.BVM
	303	0.9	0.80	2	DCE.91.090.AVC	DCE.91.090.AVM
		0.9	0.45	2		
	304 ¹⁾	0.7	0.80	1	DCE.91.070.BVC	DCE.91.070.BVM
	305	0.7	0.45	2		
1B 1K 1S	306/307	0.5	0.45	1	DCE.91.050.BVC	DCE.91.050.BVM
	309					
	302 ¹⁾	1.3	1.40	1	DCE.91.131.BVC	DCE.91.131.BVM
	303	1.3	1.10	2		
	304 ¹⁾	0.9	1.10	1	DCE.91.091.BVC	DCE.91.091.BVM
	305	0.9	0.80	2		
2B 2K 2S	306/307	0.7	0.80	1	DCE.91.071.BVC	DCE.91.071.BVM
	308	0.7	0.45	2		
	310/314	0.5	0.45	1	DCE.91.051.BVC	DCE.91.051.BVM
	316					
	304/305	1.3	1.40	1	DCE.91.132.BVC	DCE.91.132.BVM
	306 ¹⁾	1.3	1.10	2	DCE.91.132.CVC	DCE.91.132.CVM
	307	1.3	0.80	2		
		0.9	1.10	1	DCE.91.092.BVC	DCE.91.092.BVM
	308/310	0.9	0.80	2	DCE.91.092.AVC	DCE.91.092.AVM
		0.9	0.45	2		
	312/314	0.7	0.80	1	DCE.91.072.BVC	DCE.91.072.BVM
	316/318					
	319	0.7	0.45	2		

Note: ¹⁾ only these types are available in S series.

Note: see table on page 51 for connector selection and the table on page 131 for contact selection.



These positioners are suitable for use with both manual and pneumatic crimping tools according to the MIL-C-22520/7-01 standard.

勝特力材料 886-3-5753170
 勝特力电子(上海) 86-21-34970699
 勝特力电子(深圳) 86-755-83298787
[Http://www.100y.com.tw](http://www.100y.com.tw)

DCE Positioners for crimp contacts 0.5-0.7-0.9 and 1.3 mm diameter

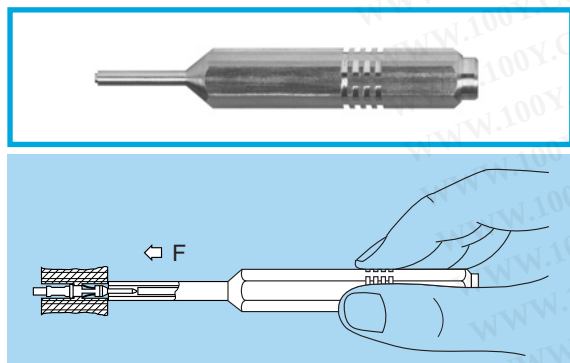
	Connector + Contact					Positioners part number	
	Type	ø A	ø C	E.g.	Conductor AWG	For male contact	For female contact
3B 3K	308/309	1.3	1.40	1	18-20	DCE.91.133.BVC	DCE.91.133.BVM
	310	1.3	1.10	2	20-22-24		
	312/314	0.9	1.10	1	20-22-24	DCE.91.093.BVC	DCE.91.093.BVM
	316/318	0.9	0.80	2	22-24-26		
4B 4K	320/322	0.7	0.80	1	22-24-26	DCE.91.073.BVC	DCE.91.073.BVM
	324/326	0.7	0.45	2	28-30-32		
	330	0.7	0.45	2	28-30-32		
	340/348	0.7	0.80	1	22-24-26	DCE.91.074.BVC	DCE.91.074.BVM
5B 5K	330/340	1.3	1.40	1	18-20	DCE.91.135.BVC	DCE.91.135.BVM
	348	1.3	1.10	2	20-22-24		
	350/354	0.9	1.10	1	20-22-24	DCE.91.095.BVC	DCE.91.095.BVM
	364	0.9	0.80	2	22-24-26		



Note: these turrets can be used with manual crimping tool according to MIL-C-22520/1-01 standard.

DCE Turret for crimp contacts 1.6-2.0-3.0 and 4.0 mm diameter

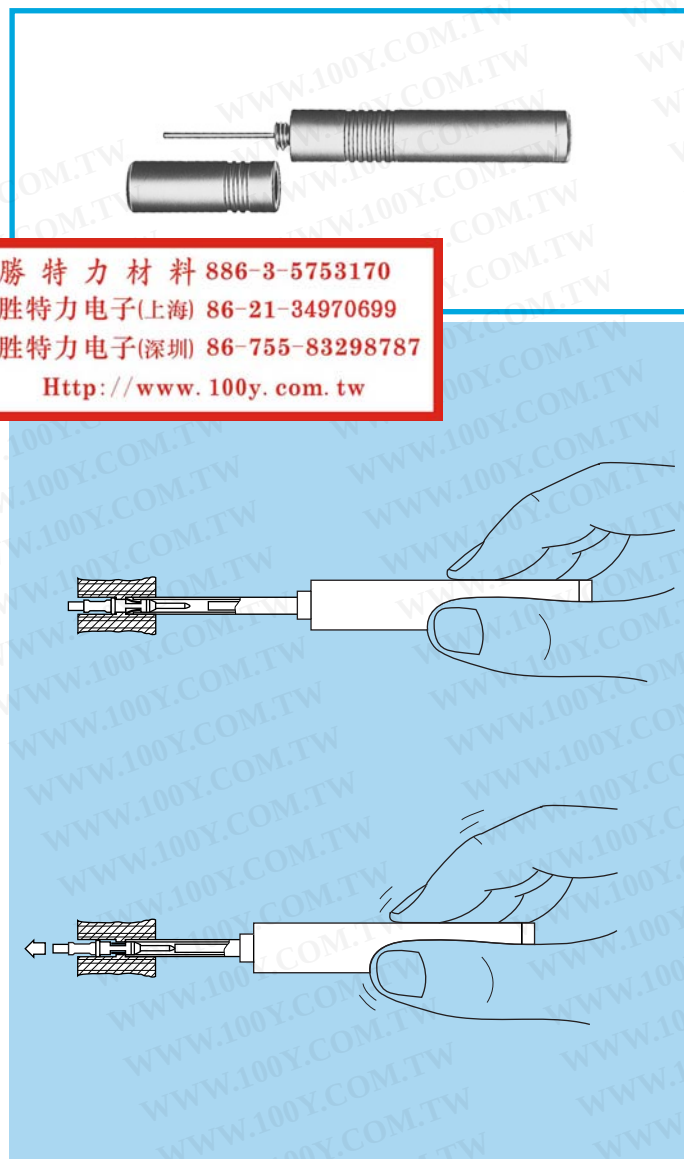
	Connector + Contact				Positioners	
	Type	ø A	ø C	LE	Conductor AWG	Part number
2B 2K	302	2.0	2.4	1	12-14-16	DCE.91.202.BVCM
		2.0	1.9	2	14-16-18	
	303	1.6	1.9	1	14-16-18	DCE.91.162.BVCM
		1.6	1.4	2	18-20-22	
3B 3K	302	3.0	2.9	1	10-12-14	DCE.91.303.BVCM
	303/304	2.0	2.4	1	12-14-16	DCE.91.203.BVCM
	309	2.0	1.9	2	14-16-18	
	305/306	1.6	1.9	1	14-16-18	DCE.91.163.BVCM
4B 4K	307	1.6	1.4	2	18-20-22	
	304	3.0	2.9	1	10-12-14	DCE.91.304.BVCM
	306/307	2.0	2.4	1	12-14-16	DCE.91.204.BVCM
		2.0	1.9	2	14-16-18	
5B 5K	310	1.6	1.9	1	14-16-18	DCE.91.164.BVCM
		1.6	1.4	2	18-20-22	
	304	4.0	4.0	1	10-12	DCE.91.405.BVCM
	310	3.0	2.9	1	10-12-14	DCE.91.305.BVCM
	314/316	2.0	2.4	1	12-14-16	DCE.91.205.BVCM
		2.0	1.9	2	14-16-18	
	320	1.6	1.9	1	14-16-18	DCE.91.165.BVCM
		1.6	1.4	2	18-20-22	



DCK Retention testing tools for crimp contacts 0.5-0.7-0.9 and 1.3 mm diameter

Contact ø A	Test force (N)	Testing tool part number	
		For male contact	For female contact
0.5	8	DCK.91.050.8LRC	DCK.91.050.8LRM
0.7	10	DCK.91.071.0LRC	DCK.91.071.0LRM
0.9	14	DCK.91.091.4LRC	DCK.91.091.4LRM
1.3	25	DCK.91.132.5LRC	DCK.91.132.5LRM

DCF Automatic extraction tools for crimp contacts (not valid for FA● and FW● models)



	Connector		Extractors part number For male and female contacts
	Type	Contact ø A	
00	302/303/304	0.5	DCF.91.050.2LT
0B 0K	302/303	0.9	DCF.91.090.2LT
	304/305	0.7	DCF.92.070.3LT
	306/307/309	0.5	DCF.91.050.2LT
1B 1K	302/303	1.3	DCF.91.131.2LT
	304/305	0.9	DCF.91.090.2LT
	306/307/308	0.7	DCF.91.070.2LT
	310/314/316	0.5	DCF.91.050.2LT
2B 2K	302	2.0	DCC.91.202.5LA ¹⁾
	303	1.6	DCF.91.162.2LT
	304/305/306/307	1.3	DCF.91.131.2LT
	308/310	0.9	DCF.91.090.2LT
	312/314/316/318/319	0.7	DCF.91.070.2LT
3B 3K	302	3.0	DCF.91.303.5LT
	303/304/309	2.0	DCC.91.202.5LA ¹⁾
	305/306/307	1.6	DCF.91.163.5LT
	308/309/310	1.3	DCF.91.133.5LT
	312/314/316/318	0.9	DCF.91.093.5LT
	320/322/324/326/330	0.7	DCF.91.073.5LT
4B 4K	304	3.0	DCF.91.303.5LT
	306/307	2.0	DCC.91.202.5LA ¹⁾
	310	1.6	DCF.91.163.5LT
	312	1.3	DCF.91.133.5LT
	316/320/324/330	0.9	DCF.91.093.5LT
	340/348	0.7	DCF.91.073.5LT
5B 5K	304	4.0	DCF.91.405.5LT
	310	3.0	DCF.91.303.5LT
	314/316	2.0	DCC.91.202.5LA ¹⁾
	320	1.6	DCF.91.163.5LT
	330/340/348	1.3	DCF.91.133.5LT
	350/354/364	0.9	DCF.91.093.5LT

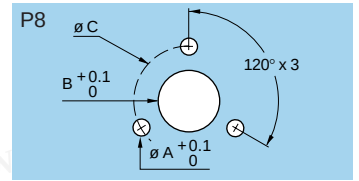
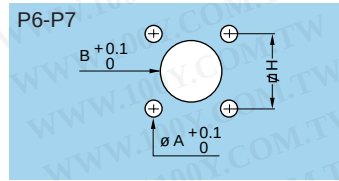
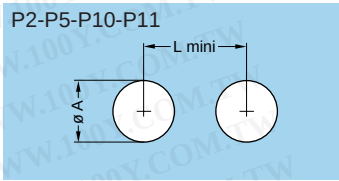
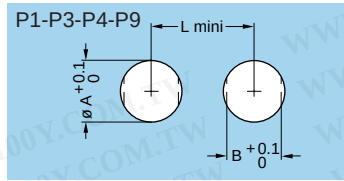
Note: ¹⁾ this model is thumb-operated. S Series available on request.

DCF Automatic extraction tools for crimp contacts (for FA● and FW● models)

	Contact ø A (mm)	Extractors part number
		For male and female contacts
0B/0K to 3B/3K	1.6	DCF.92.162.3LT
	1.3	DCF.92.131.3LT
	0.9	DCF.92.090.3LT
	0.7	DCF.92.070.3LT

Note: extractor for FA● of the 4B/4K and 5B/5K still need to be determined.

Panel cut-outs



B series

Series	P1			P2		P3			P4			P5		P6			P8			P9			P10	
	ø A	B	L	ø A	L	ø A	B	L	ø A	B	L	ø A ²⁾	L	ø A	B	H	ø A	B	C	ø A	B	L	ø A	L
00	7.1	6.4	12.5	7.1	11.5	–	–	–	–	–	–	–	–	–	–	–	–	–	–	7.1	–	12	–	–
0B	9.1	8.3	14.5	9.1	13.5	14.1	12.6	20.1	10.1	9.1	15.0	8.30	10.5	–	–	–	–	–	–	9.1	8.3	15	–	–
1B	12.1	10.6	18.5	–	–	16.1	14.6	22.0	14.1	12.6	21.0	11.17	14.0	–	–	–	–	–	–	12.1	10.6	19	11.1	17
2B	15.1	13.6	22.5	–	–	19.2	17.1	28.0	16.1	15.1	23.0	13.95	18.0	–	–	–	–	–	–	15.1	13.6	23	–	–
3B	18.2	16.6	27.0	–	–	–	–	–	20.2	18.6	29.5	–	–	–	–	–	–	–	–	18.2	16.6	27	–	–
4B	25.2	23.6	36.0	–	–	–	–	–	25.2	23.6	36.1	–	–	–	–	–	–	–	–	25.2	23.6	36	–	–
5B	35.2 ²⁾	33.6	44.0	–	–	–	–	–	35.2	33.6	47.1	–	–	3.3	35.2	34	2.8	35.2	47	35.2	33.6	47	–	–

Note:

¹⁾ for using the tapered washer a round hole ø 36 mm apply. ²⁾ tolerance: + 0.02 / 0

Cut-out types

Model	Type	Model	Type	Model	Type	Model	Type	Model	Type
ECG	P1	ENG	P1	HCG	P3	PFG	P1	YHG	P9
EEG	P1	ENY	P1	HEG	P9	PKG	P1		
EGG	P1	ESG	P1/P2	HGG	P9	R●●	P4		
EFG	P2	EXG	P2/P10	HHG	P9	S●●	P4/P9 ³⁾		
EHG	P1	EYG	P1/P10	HMG	P9	XBG	P2		
EJG	P5	FAG	P1	HNG	P9	XPF	P2		
EKG	P1	FWG	P9	PEG	P1	XRB	P2		

Note: ³⁾ in series 1B use P9.

Note: ⁴⁾ these values apply when metal shell are mounted with insulating washer.

Mounting nut torque

Series	Torque (Nm)	
	Metal shell	Plastic shell ⁴⁾
00	1.0	0.4
0B	2.5	0.4
1B	4.5	0.7
2B	6.0	0.8
3B	9.0	1.0
4B	12.0	5.0
5B	17.0	—

S series

Series	P1			P2		P3			P4			P5		P6			P7			P10		P11	
	ø A	B	L	ø A	L	ø A	B	L	ø A	B	L	ø A ²⁾	L	ø A	B	H	ø A	B	H	ø A	L	ø A	L
00	7.1	6.4	12.5	7.1	11.5	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—	—
0S	9.1	8.3	14.5	9.1	13.5	12.1	10.6	20.0	10.1	9.1	15	—	—	—	—	—	—	—	—	—	—	9.1	16
1S	12.1	10.6	18.5	12.1	19.0	14.1	12.6	21.0	12.1	10.6	18	11.92	15.5	3.3	12.1	12.7	2.7	11.1	12.4	11.1	17	12.1	19
2S	15.1	13.6	22.5	15.1	21.5	16.1	14.6	22.0	16.1	15.1	23	—	—	3.3	15.1	15.5	—	—	—	—	—	—	—
3S	18.2	16.6	27.0	18.2	27.0	20.2	18.6	30.0	20.2	18.6	29	—	—	3.3	18.2	18.0	—	—	—	—	—	—	—
4S	25.2	23.6	36.0	25.2	34.0	25.2	23.6	36.0	25.2	23.6	36	—	—	—	—	—	—	—	—	—	—	—	—
5S	35.2 ¹⁾	33.6	44.0	35.2	44.0	35.2	33.6	47.0	35.2	33.6	47	—	—	4.4	35.2	36.8	—	—	—	—	—	—	—
6S	48.3	45.6	58.0	48.3	58.0	48.3	45.6	60.0	48.3	45.6	60	—	—	—	—	—	—	—	—	—	—	—	—

Note:

¹⁾ for using the tapered washer a round hole ø 36 mm apply. ²⁾ tolerance: + 0.02 / 0

Cut-out types

Model	Type	Model	Type	Model	Type	Model	Type
EBC	P6	ERA	P1	EWB	P3	PSP	P1
EBD	P6	ERC	P1	FAA	P1/P2 ³⁾	PSS	P1
EBS	P7	ERD	P1	HCP	P3 ⁴⁾	RAD	P1/P2 ⁵⁾
ECP	P1	ERN	P1	HGP	P3	SWH	P4
EEP	P1	ERS	P2	HGW	P11		
EHP	P2/P1	EXP	P2/P10	PSA	P1		

1 N = 0.102 kg

Mounting nut torque

Series	Torque (Nm)	
	Metal shell	Plastic shell ⁶⁾
0S	2.5	0.4
1S	4.5	0.7
2S	6.0	0.8
3S	9.0	1.0
4S	12.0	5.0
5S	17.0	—
6S	22.0	—

Note: ³⁾ in series 6S use P2. ⁴⁾ use only ø A in 1S series.

⁵⁾ in series 4S and 5S use P2.

Note: ⁶⁾ these values apply when metal shell are mounted with insulating washer.

K series

Series	P1			P6			P7		
	ø A	B	L	ø A	B	H	ø A	B	H
0K	14.1	12.6	20.5	—	—	—	—	—	—
1K	16.1	14.6	22.5	—	—	—	—	—	—
2K	20.2	18.6	29.0	—	—	—	—	—	—
3K	24.2	22.6	35.5	3.5	22.6	20.6	3.5	23.1	23.0
4K	30.2	28.6	43.0	3.5	28.6	27.0	3.5	30.1	29.0
5K	45.2	42.6	57.0	4.5	42.6	38.0	4.5	45.1	44.0

勝特力材料 886-3-5753170
 勝特力电子(上海) 86-21-34970699
 勝特力电子(深圳) 86-755-83298787
[Http://www.100y.com.tw](http://www.100y.com.tw)

Cut-out types

Model	Type	Model	Type	Model	Type
EBG	P7	EVG	P1	PEG	P1
EDG	P7 ²⁾	FAG	P1	PKG	P1
EEG	P1	FXG	P6	S●●	P1
EGG	P1	HEG	P1		
EHG	P1	HGG	P1		
ENG	P1	PBG	P7 ³⁾		

Mounting nut torque

Series	Torque (Nm)
0K	5
1K	7
2K	9
3K	12
4K	17
5K	22

1 N = 0.102 kg

Note: ²⁾ for this model dimension B = 18.1. ³⁾ for this model dimension B = 19.1.

E and L series

Series	P1			P6		
	ø A	B	L	ø A	B	H
0E-0L	14.1	12.6	20.5	—	—	—
1E-1L	16.1	14.6	22.5	—	—	—
2E-2L	20.2	18.6	29.0	2.9	15.1	11.8x20.4
3E	24.2	22.6	35.5	—	—	—
4E	30.2	28.6	43.0	—	—	—
5E	45.2	42.6	57.0	—	—	—
6E	55.3	52.1	68.0	—	—	—

Cut-out types E series

Model	Type	Model	Type
EBR	P6	HGP	P1
EEP	P1	PSA	P1
EHP	P1	PSP	P1
ERA	P1	SWH	P1
ERB	P1		
ERC	P1		
FAA	P1		

Cut-out types L series

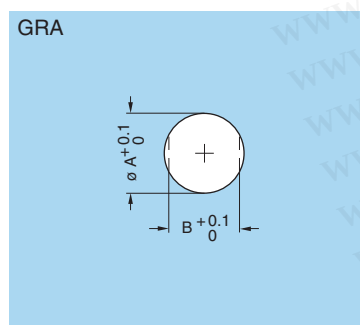
Model	Type
EEG	P1
EGG	P1
FAG	P1
HGG	P1
PKG	P1

Mounting nut torque

Series	Torque (Nm)
0E-0L	5
1E-1L	7
2E-2L	9
3E	12
4E	17
5E	22
6E	27

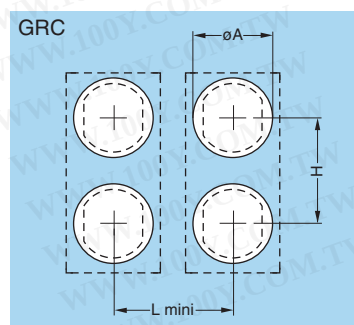
1 N = 0.102 kg

Panel cut-out for mounting with insulating washer (S-B series)



Series	Dim. (mm)	
	ø A	B
00	8.9	8.1
0S-0B	10.9	10.0
1S-1B	13.9	12.3
2S-2B	18.0	16.3
3S-3B	21.9	20.3
4S-4B	29.1	27.4

Panel cut-out for mounting with double panel washer (S-B series)



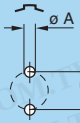
Series	Dimensions (mm)		
	ø A	H	L
0S-0B	11	14	13.5
1S-1B	14	20	17.0

Note: for nut tightening torques please refer to the corresponding series in the table on page 152.

PCB drilling pattern

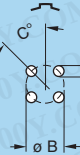
Fixed socket with straight print contact (B-K series) P15

302



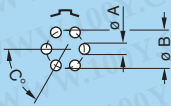
Series	Dimensions	
	A	B
00	0.6	1.2
0B-0K	0.8	2.2
1B-1K	0.8	2.8
2B-2K	0.8	4.4

304



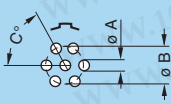
Series	Dimensions		
	A	B	C
00	0.6	1.6	45°
0B-0K	0.6	2.5	45°
1B-1K	0.8	3.1	45°
2B-2K	0.8	5.0	45°
3B-3K	0.8	6.2	45°

306



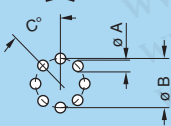
Series	Dimensions		
	A	B	C
0B-0K	0.6	3.0	60°
1B-1K	0.8	3.7	60°

307



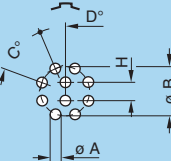
Series	Dimensions		
	A	B	C
0B-0K	0.6	3.00	60°
1B-1K	0.8	3.70	60°
2B-2K	0.8	5.80	60°
3B-3K	0.8	7.08	60°

308



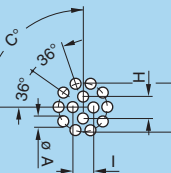
Series	Dimensions		
	A	B	C
2B-2K	0.8	6.4	45°
3B-3K	0.8	7.5	45°

310



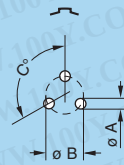
Series	Dimensions				
	A	B	C	D	H
1B-1K	0.6	3.95	45°	22°30'	1.40
2B-2K	0.8	6.30	45°	22°30'	2.15
3B-3K	0.8	7.90	45°	22°30'	2.80

314



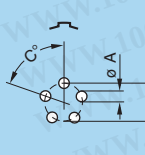
Series	Dimensions				
	A	B	C	H	I
1B-1K	0.6	4.4	90°	1.90	1.80
2B-2K	0.8	6.5	90°	2.65	2.65
3B-3K	0.8	8.2	90°	3.40	3.40

303



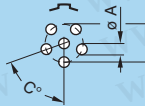
Series	Dimensions		
	A	B	C
00	0.6	1.35	120°
0B-0K	0.8	2.30	120°
1B-1K	0.8	3.00	120°
2B-2K	0.8	4.60	120°
3B-3K	0.8	5.60	120°

305



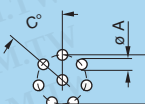
Series	Dimensions		
	A	B	C
0B-0K	0.6	2.8	72°
1B-1K	0.8	3.4	72°
2B-2K	0.8	5.2	72°
3B-3K	0.8	6.7	72°

306



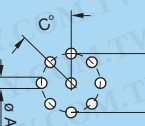
Series	Dimensions		
	A	B	C
2B-2K	0.8	5.6	72°
3B-3K	0.8	7.1	72°

308



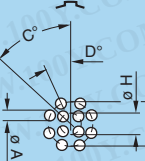
Series	Dimensions		
	A	B	C
1B-1K	0.8	3.8	51°26'

309



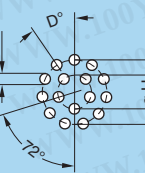
Series	Dimensions		
	A	B	C
0B-0K	0.6	3.2	45°
3B-3K	0.8	7.5	45°

312

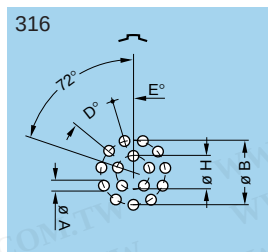


Series	Dimensions				
	A	B	C	D	H
2B-2K	0.8	6.50	45°	22°30'	2.80
3B-3K	0.8	8.20	45°	22°30'	3.40

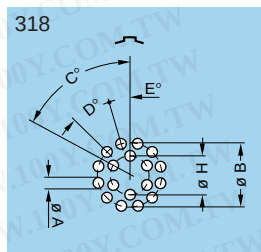
316



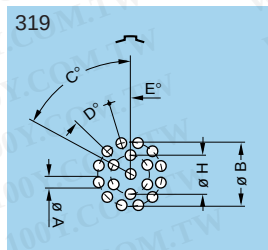
Series	Dimensions			
	A	B	D	H
1B-1K	0.6	4.4	32°44'	2.00



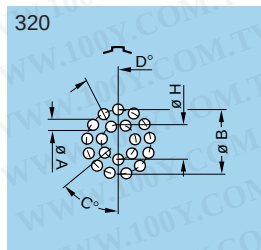
Series	Dimensions				
	A	B	D	E	H
2B-2K	0.8	6.6	32°44'	16°22'	3.10
3B-3K	0.8	8.4	32°44'	16°22'	3.86
4B-4K	0.6	10.5	32°44'	16°22'	5.00



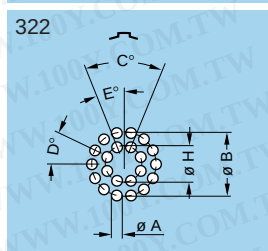
Series	Dimensions					
	A	B	C	D	E	H
2B-2K	0.8	6.7	60°	30°	15°	3.50
3B-3K	0.8	8.4	60°	30°	15°	4.34



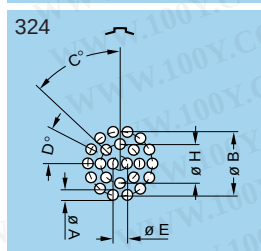
Series	Dimensions					
	A	B	C	D	E	H
2B-2K	0.8	6.7	60°	30°	15°	3.5



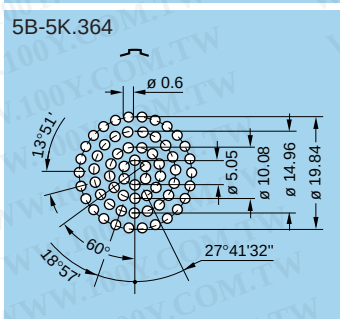
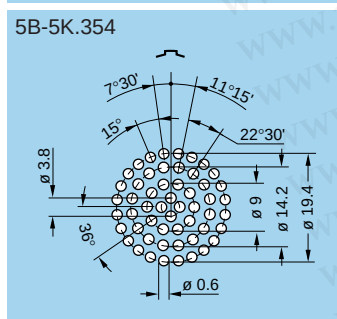
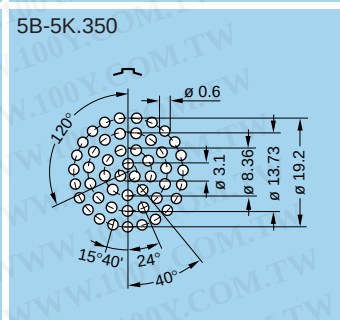
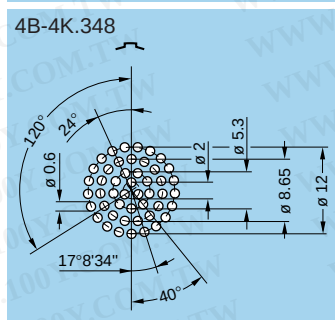
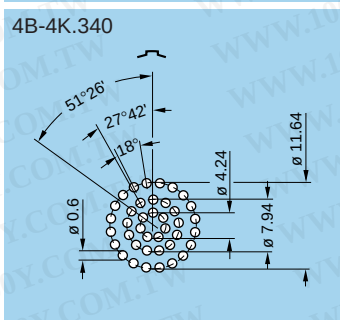
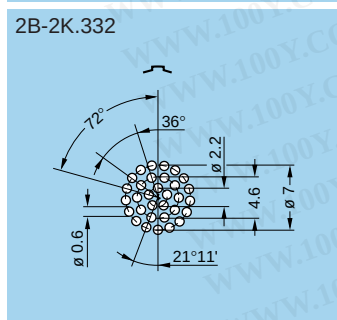
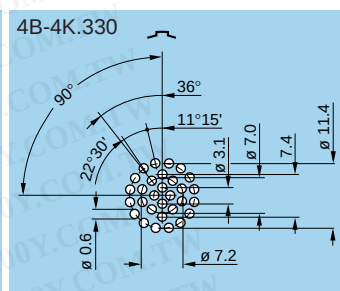
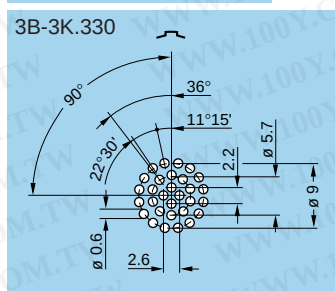
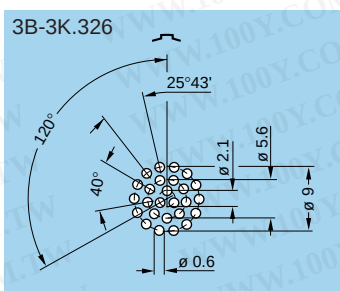
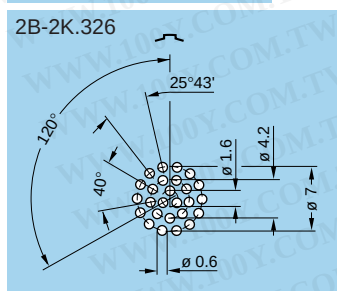
Series	Dimensions				
	A	B	C	D	H
3B-3K	0.6	8.62	51°26'	27°42'	4.78
4B-4K	0.6	11.00	51°26'	27°42'	6.00



Series	Dimensions					
	A	B	C	D	E	H
3B-3K	0.6	8.8	45°	25°43'	22°30'	5



Series	Dimensions					
	A	B	C	D	E	H
3B-3K	0.6	8.8	45°	25°43'	1.8	5.30
4B-4K	0.6	11.1	45°	25°43'	2.2	6.65



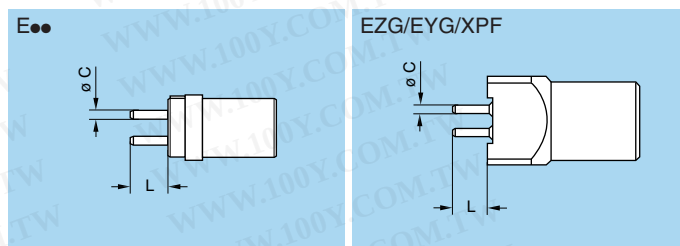
Note: all views are from the side of the socket.

Length of straight print contacts (for socket E●●)

	Type	Dimensions	
		ø C	L
00	302	0.5	3.0
	303	0.5	3.0
	304	0.5	3.0
0B 0K	302/303	0.7	3.2
	304/305	0.5	3.2
	306/307/309	0.5	3.2
1B 1K	302/303/304/305	0.7	3.0
	306/307/308	0.7	3.0
	310/314/316	0.5	4.0
2B 2K	302/303/304/305/306/307	0.7	3.0
	308/310/312/314/316/318/319	0.7	3.0
	326/332	0.5	3.0
3B 3K	303/304/305/306/307	0.7	3.0
	308/309/310/312/314/316/318	0.7	3.0
	320/322/324/326/330	0.5	5.0
4B 4K	316/320	0.5	5.0
	324/330	0.5	5.0
	340/348	0.5	5.0
5B 5K	348	0.7	5.0
	350	0.5	5.0
	354	0.5	5.0
	364	0.5	5.0

Length of straight print contacts (for socket EZG/EYG/XPF)

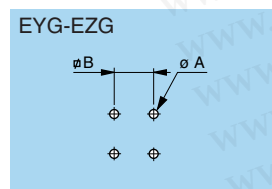
	Type	Models			
		EZG/EYG		XPF	
		ø C	L	ø C	L
0B	302/303	0.7	4.5	—	—
	304/305	0.5	4.5	0.7	3.0
	306/307/309	0.5	3.0	—	—
1B	302/303/304/305	0.7	3.8	—	—
	306/307/308	0.7	3.8	—	—
	310/314/316	0.5	3.8	—	—
2B	302/303/304/305	0.7	5.5	—	—
	306/307/308/310	0.7	5.5	—	—
	312/314/316/318/319	0.7	5.5	—	—



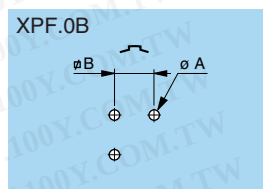
Note: This table does not apply for socket H●●; socket EH● and plugs FA●/FW●.

Fixed socket for printed circuit (B series) P16

Holes for fixing the housing



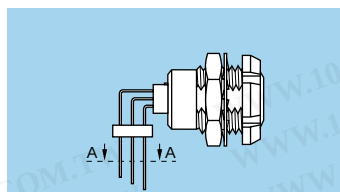
Series	Dimensions	
	A	B
00	0.8 ¹⁾	5.08
0B	1.7 ²⁾	7.62
1B	1.7 ²⁾	7.62
2B	1.7 ²⁾	10.16



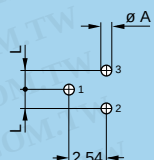
Series	Dimensions	
	A	B
0B	1.7	5.08

Note: Mounting torque for screws: 0.1 Nm.
¹⁾ to solder. ²⁾ to screw.

Fixed socket with elbow print contact (B-K series) P17

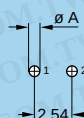


303

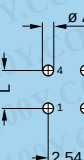


Series	Dim.	
	A	L
00	0.6	1.27
0B-0K	0.7	1.27
1B-1K	0.9	1.27
2B-2K	0.9	2.54

302



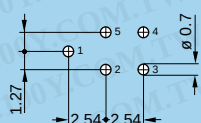
304



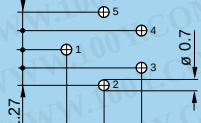
Series	Dim.	
	A	
00	0.6	
0B-0K	0.7	
1B-1K	0.9	
2B-2K	0.9	

Series	Dim.	
	A	L
00	0.6	2.54
0B-0K	0.7	2.54
1B-1K	0.7	2.54
2B-2K	0.9	3.50

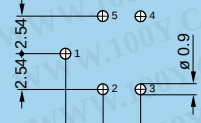
0B-0K.305



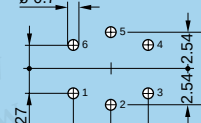
1B-1K.305



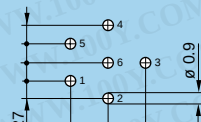
2B-2K.305



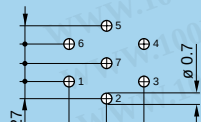
0B-0K / 1B-1K.306



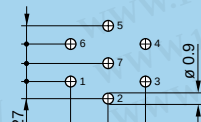
2B-2K.306



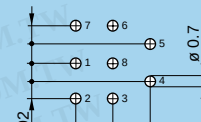
0B-0K / 1B-1K.307



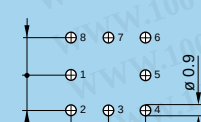
2B-2K.307



1B-1K.308



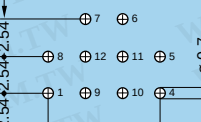
2B-2K.308 / 3B-3K.308



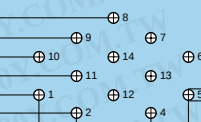
1B-1K / 2B-2K.310



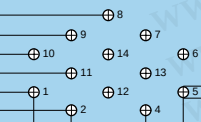
2B-2K / 3B-3K.312



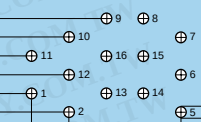
1B-1K / 2B-2K.314



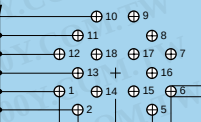
3B-3K.314



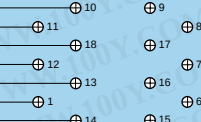
2B-2K / 3B-3K.316



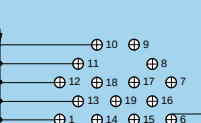
2B-2K.318



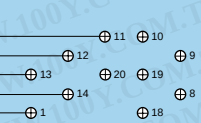
3B-3K.318



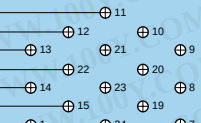
2B-2K.319



3B-3K.320



3B-3K.324



3B-3K.330

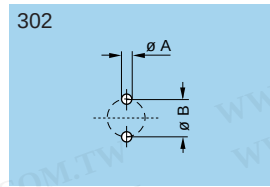


Elbow socket (90°) for printed circuit (B series) P18 P19 P20

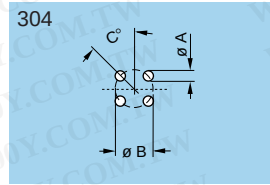
	P18 - EPG.00.302 - XBG.00.302 XRB.00.302 ¹⁾ 	P18 - EPG.00.303²⁾ - XBG.00.303²⁾ XRB.00.303 ¹⁾ 	P18 - EPG.00.304 - XBG.00.304 XRB.00.304 ¹⁾
P19 - EPG-EXG (0B/1B.302) Solder mount 	P19 - EPG-EXG (0B/1B.302) Screw mount 	P19 - EPG-EXG (0B/1B.303) Solder mount 	P19 - EPG-EXG (0B/1B.303) Screw mount
P19 - EPG-EXG (0B/1B.304) Solder mount 	P19 - EPG-EXG (0B/1B.304) Screw mount 	P19 - EPG-EXG (0B/1B.305) Solder mount 	P19 - EPG-EXG (0B/1B.305) Screw mount
P19 - EPG-EXG (0B/1B.306) Solder mount 	P19 - EPG-EXG (0B/1B.306) Screw mount 	P19 - EPG-EXG (0B/1B.307) Solder mount 	P19 - EPG-EXG (0B/1B.307) Screw mount
P19 - EPG-EXG (1B.308) Solder mount 	P19 - EPG-EXG (1B.308) Screw mount 	P19 - EPG-EXG (0B.309) Solder mount 	P19 - EPG-EXG (0B.309) Screw mount
P19 - EPG-EXG (1B.310) Solder mount 	P19 - EPG-EXG (1B.310) Screw mount 	P20 - EPG.1B.314 	

Note: 1) for the XRB.00 series the holes for shell fixing are different (see p. 30).
 2) the dimensions for the EPG.00.303.HLN and XBG.00.303.HLN models are given on page 23. For other models please contact factory.

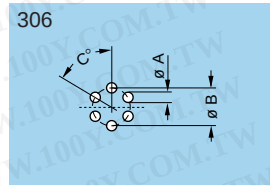
Fixed socket with straight print contact (S-E series) P21



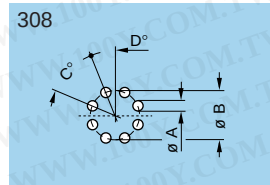
Series	Dimensions	
	A	B
0S-0E	0.6	2.2
1S-1E	0.8	3.0



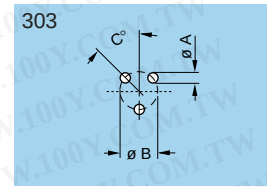
Series	Dimensions		
	A	B	C
0S-0E	0.6	2.8	45°
1S-1E	0.8	3.5	45°
2S-2E	0.8	5.0	45°



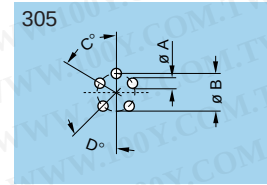
Series	Dimensions		
	A	B	C
1S-1E	0.8	3.5	60°
2S-2E	0.8	5.5	60°
3S-3E	0.8	6.5	60°



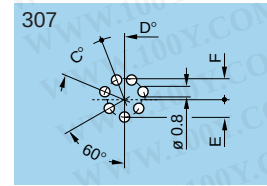
Series	Dimensions			
	A	B	C	D
2S-2E	0.8	6.5	45°	22°30'
3S-3E	0.8	7.8	45°	22°30'



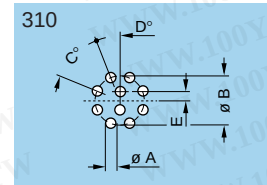
Series	Dimensions		
	A	B	C
0S-0E	0.6	2.8	45°
1S-1E	0.8	3.5	45°
2S-2E	0.8	5.5	60°



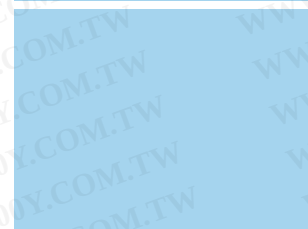
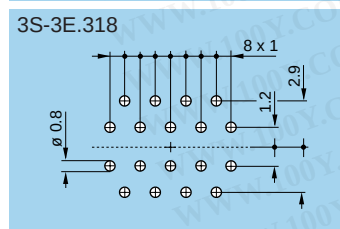
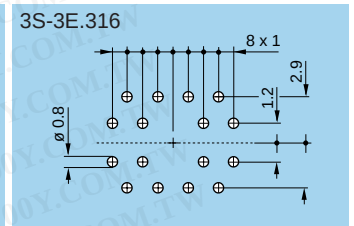
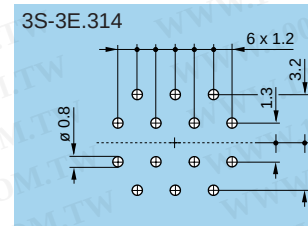
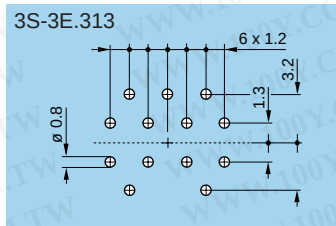
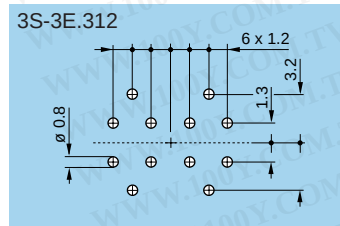
Series	Dimensions			
	A	B	C	D
1S-1E	0.8	3.5	60°	45°
2S-2E	0.8	5.5	60°	60°



Series	Dimensions			
	C	D	E	F
2S-2E	45°	22°30'	2.75	3.25
3S-3E	45°	22°30'	3.25	3.90

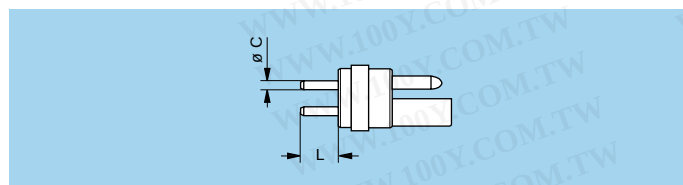


Series	Dimensions				
	A	B	C	D	E
2S-2E	0.8	6.5	45°	22°30'	1.25
3S-3E	0.8	7.8	45°	22°30'	1.50



Note: all views are from the side of the socket.

Length of straight print contacts (for socket E●●)



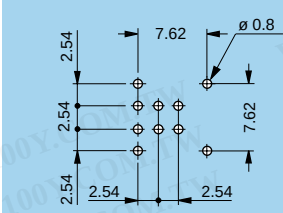
	Type	Dimensions	
		Ø C	L
0S 0E	302	0.7	3.0
	303	0.5	3.0
	304	0.5	3.0
1S 1E	302	0.7/1.5	3.0/5.0
	303/304/305	0.7	3.0
	305/306	0.5	3.0

	Type	Dimensions	
		Ø C	L
2S 2E	303/304/305	0.7	3.0
	306/307	0.7	3.0
	308/310	0.7	3.0
3S 3E	305/306/307/308/310	0.7	3.0
	312/313/314	0.7	3.0
	316/318	0.7	3.0

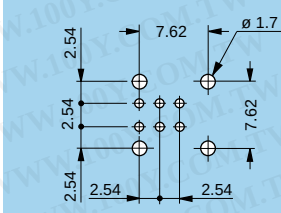
Note: This table does not apply for HGP and EHP sockets and for FAA plugs.

Elbow socket (90°) for printed circuit (S series) P22 P23

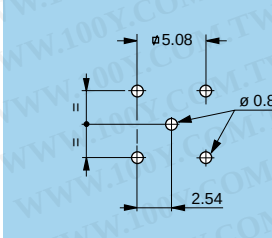
P22 - EPL - EXP
Solder mount



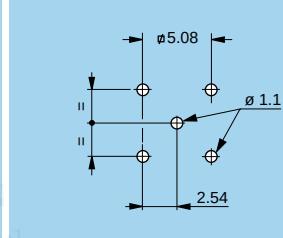
P22 - EPL - EXP
Screw mount



P23 - EPL.00.113

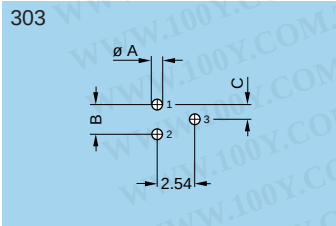
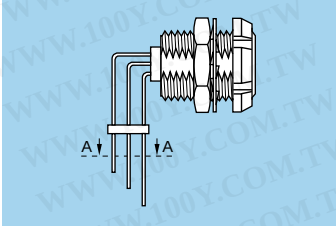


P23 - EPL.0S.116

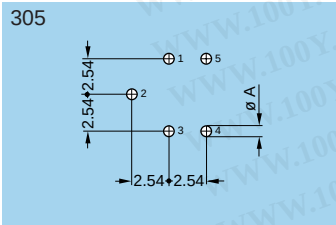


Note: all dimensions are in millimetres.

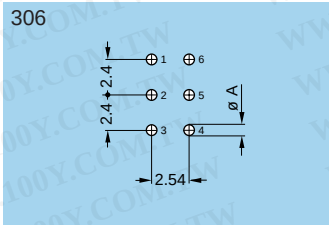
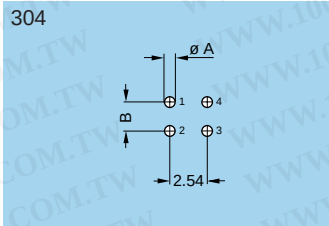
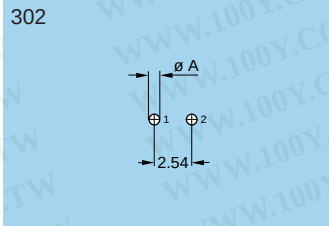
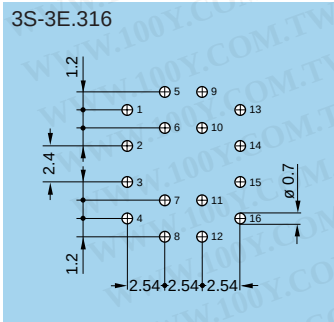
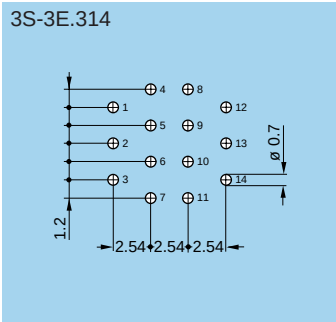
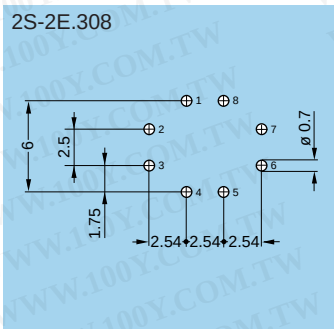
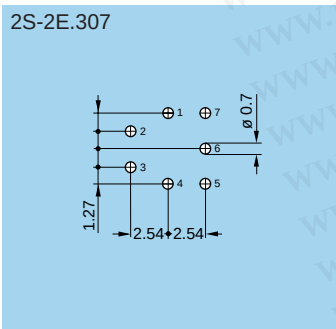
Fixed socket with elbow print contact (S-E series) P24



Series	Dimensions		
	A	B	C
0S-0E	0.7	2.00	1.00
1S-1E	0.7	2.48	1.24



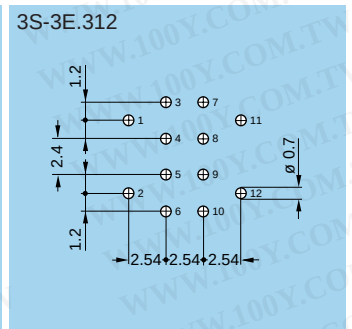
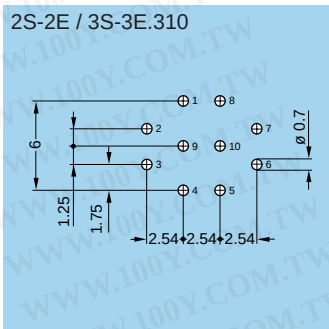
Series	Dim.
	A
1S-1E	0.7
2S-2E	0.9



Series	Dim.
	A
0S-0E	0.7
1S-1E	0.9

Series	Dimensions	
	A	B
0S-0E	0.7	2.00
1S-1E	0.7	3.50
2S-2E	0.9	3.50

Series	Dim.
	A
1S-1E	0.7
2S-2E	0.9



Cable assembly (B, K, S and E series)

Cable stripping lengths (B series)

M1 straight plugs and sockets with cable collet, clamping type D or M (solder or crimp contacts)

M3 elbow plugs (90°) with cable collet, clamping type D or M (solder or crimp contacts)

Connector			ø contact A (mm)	Cable stripping lengths (mm)											
				M1						M3					
				Solder			Crimp			Solder			Crimp		
Series	Type		L	S	T	L	S	T	L	S	T	L	S	T	
00	302/303/304	0.5	7.0	4	2.5	10.0	4	3.0	9.5	4	2.5	12.5	4	3.0	
	302/303	0.9	13.0	7	3.0	17.0	7	4.0	18.0	7	3.0	22.0	7	4.0	
	304/305	0.7	13.0	7	3.0	17.0	7	4.0	18.0	7	3.0	22.0	7	4.0	
	306/307/309 ²⁾	0.5	14.0	7	2.5	18.0	7	3.0	19.0	7	2.5	23.0	7	3.0	
1B ¹⁾	302/303	1.3	14.0	8	3.5	18.0	8	4.0	25.0	8	3.5	28.0	8	4.0	
	304/305	0.9	14.0	8	3.0	18.0	8	4.0	25.0	8	3.0	28.0	8	4.0	
	306/307/308	0.7	14.0	8	3.0	18.0	8	4.0	25.0	8	3.0	28.0	8	4.0	
	310/314/316	0.5	16.5	8	2.5	—	—	—	27.5	8	2.5	—	—	—	
2B	302	2.0	19.0	9	4.0	22.0	9	5.5	30.0	9	4.0	33.0	9	5.5	
	303	1.6	19.0	9	3.5	22.0	9	5.5	30.0	9	3.5	33.0	9	5.5	
	304/305/306/307	1.3	18.0	9	3.5	20.0	9	4.0	29.0	9	3.5	31.0	9	4.0	
	308/310	0.9	17.0	9	3.0	20.0	9	4.0	28.0	9	3.0	31.0	9	4.0	
	312/314/316/318/319	0.7	17.0	9	3.0	20.0	9	4.0	28.0	9	3.0	31.0	9	4.0	
	326/332	0.5	17.0	9	2.5	—	—	—	28.0	9	2.5	—	—	—	
3B	302	3.0	24.0	10	4.5	28.0	10	5.5	35.0	10	4.5	39.0	10	5.5	
	303/304	2.0	23.0	10	4.0	27.0	10	5.5	34.0	10	4.0	38.0	10	5.5	
	305/306/307	1.6	23.0	10	3.5	27.0	10	5.5	34.0	10	3.5	38.0	10	5.5	
	308/310	1.3	22.0	10	3.5	25.0	10	4.0	33.0	10	3.5	36.0	10	4.0	
	309	1.3	22.0	10	3.5	25.0	10	4.0	33.0	10	3.5	36.0	10	4.0	
		2.0			4.0			5.5			4.0			5.5	
	312/314/316/318	0.9	21.0	10	3.0	25.0	10	4.0	32.0	10	3.0	36.0	10	4.0	
	320/322/324/326/330	0.7	21.0	10	3.0	25.0	10	4.0	32.0	10	3.0	36.0	10	4.0	
4B	304	3.0	33.0	12	4.5	36.0	12	5.5	41.0	12	4.5	45.0	12	5.5	
	306/307	2.0	32.0	12	4.0	36.0	12	5.5	41.0	12	4.0	45.0	12	5.5	
	310	1.6	32.0	12	3.5	36.0	12	5.5	39.0	12	3.5	43.0	12	5.5	
	312	1.3	32.0	12	3.5	36.0	12	4.0	39.0	12	3.5	43.0	12	4.0	
	316/320/324/330	0.9	32.0	12	3.0	34.0	12	4.0	39.0	12	3.0	43.0	12	4.0	
	340/348	0.7	32.0	12	3.0	34.0	12	4.0	39.0	12	3.0	43.0	12	4.0	
5B ¹⁾	302	6.0	42.0	18	7.5	—	—	—	70.0	18	7.5	—	—	—	
	304	4.0	47.0	18	5.5	50.0	18	7.0	75.0	18	5.5	78.0	18	7.0	
	310	3.0	47.0	18	4.5	50.0	18	7.0	75.0	18	4.5	78.0	18	7.0	
	314/316	2.0	46.0	18	4.0	49.0	18	5.5	74.0	18	4.0	77.0	18	5.5	
	320	1.6	46.0	18	3.5	49.0	18	5.5	74.0	18	3.5	77.0	18	5.5	
	330/340/348	1.3	45.0	18	3.5	48.0	18	4.0	74.0	18	3.5	77.0	18	4.0	
	350/354/364	0.9	45.0	18	3.0	48.0	18	4.0	74.0	18	3.0	77.0	18	4.0	

The diagram illustrates a cable connector assembly. It shows a cross-section of a cable with multiple conductors. The dimension 'L' represents the total length of the cable assembly. The dimension 'T' represents the thickness of the cable jacket. The dimension 'S' represents the length of the conductors exposed within the connector housing.

M4 straight plug, short version, clamping type D or M (solder or crimp contacts)

The diagram illustrates a cable assembly with three dimensions labeled: L (total length), S (stripping length), and T (contact length). The cable is shown with multiple conductors, and the dimensions are indicated by arrows and lines.

Connector			Cable stripping lengths (mm)					
			M4					
			Solder			Crimp		
Series	Type	ø contact A (mm)	L	S	T	L	S	T
0B	302/303	0.9	9.5	8	3.0	13.0	8	4.0
	304/305	0.7	9.5	8	3.0	13.0	8	4.0
	306/307/309 ²⁾	0.5	10.0	8	2.5	13.5	8	3.0

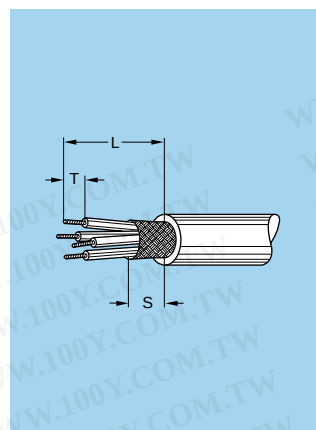
Note: the tolerances on these dimensions are: L: ± 0.5 mm; S: ± 0.5 mm; T: ± 0.2 mm.

¹⁾ In 0B and 1B series, «L» and «S» dimensions shall be increased by 2 mm for the largest collet (D56 in 0B series; D76 in 1B series).

In 5B series, «L» and «S» dimensions shall be increased by 13 mm for the largest collet (D25).

²⁾ Crimp contacts are available only for connectors fitted with male contacts.

M2 straight plug, long version, clamping type D or M (solder or crimp contacts)



Connector		ø contact A (mm)	Cable stripping lengths (mm)					
Series	Type		M2					
			Solder			Crimp		
			L	S	T	L	S	T
1B ¹⁾	302/303	1.3	39.0	8	3.5	43.0	8	4.0
	304/305	0.9	39.0	8	3.0	43.0	8	4.0
	306/307/308	0.7	39.0	8	3.0	43.0	8	4.0
	310/314/316	0.5	42.0	8	2.5	—	—	—
2B	302	2.0	49.0	9	4.0	53.0	9	5.5
	303	1.6	49.0	9	3.5	53.0	9	5.5
	304/305/306/307	1.3	48.0	9	3.5	50.0	9	4.0
	308/310	0.9	47.0	9	3.0	49.0	9	4.0
	312/314/316/318/319	0.7	47.0	9	3.0	49.0	9	4.0
	326/332	0.5	47.0	9	2.5	—	—	—

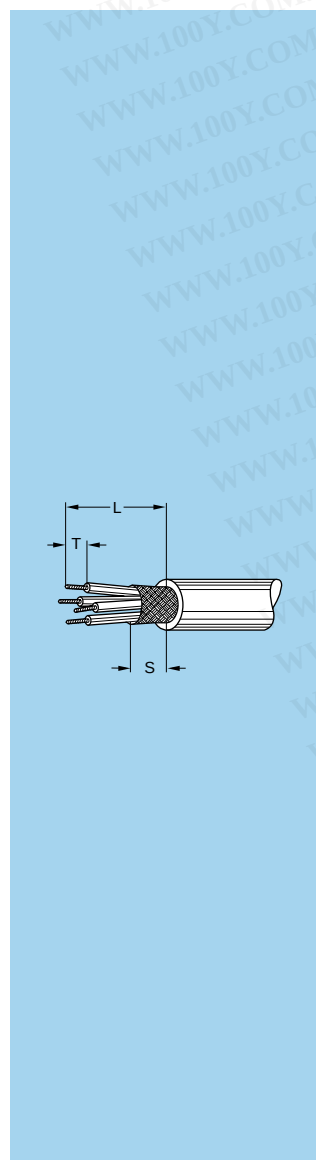
Note:

¹⁾ In 0B and 1B series, «L» and «S» dimensions shall be increased by 2 mm for the largest collet (D56 in 0B series; D76 in 1B series).
 In 5B series, «L» and «S» dimensions shall be increased by 13 mm for the largest collet (D25).
 The tolerances on these dimensions are: L: ± 0.5 mm; S: ± 0.5 mm; T: ± 0.2 mm

Cable stripping lengths (K series)

M1 straight plugs and sockets with cable collet, clamping type C (solder or crimp contacts)

M3 elbow plug (90°) with cable collet, clamping type C (solder or crimp contacts)

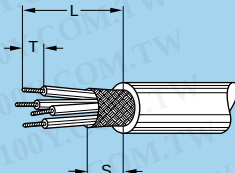


Connector		ø contact A (mm)	Cable stripping lengths (mm)											
			M1						M3					
Series	Type		Solder			Crimp			Solder			Crimp		
		L	S	T	L	S	T	L	S	T	L	S	T	
0K	302/303	0.9	8.0	6	3.0	12.0	6	4.0	21.0	6	3.0	25.0	6	4.0
	304/305	0.7	8.0	6	3.0	12.0	6	4.0	21.0	6	3.0	25.0	6	4.0
	306/307/309 ¹⁾	0.5	9.0	6	2.5	13.0	6	4.0	22.0	6	2.5	26.0	6	4.0
1K	302/303	1.3	10.5	7	3.5	14.5	7	4.0	27.0	7	3.5	31.0	7	4.0
	304/305	0.9	10.5	7	3.0	14.5	7	4.0	27.0	7	3.0	31.0	7	4.0
	306/307/308	0.7	10.5	7	3.0	14.5	7	4.0	27.0	7	3.0	31.0	7	4.0
	310/314/316	0.5	13.0	7	2.5	—	—	—	29.5	7	2.5	—	—	—
2K	302	2.0	16.5	8	4.0	19.5	8	5.5	36.0	8	4.0	39.0	8	5.5
	303	1.6	16.5	8	3.5	19.5	8	5.5	36.0	8	3.5	39.0	8	5.5
	304/305/306/307	1.3	15.5	8	3.5	17.5	8	4.0	35.0	8	3.5	37.0	8	4.0
	308/310	0.9	14.5	8	3.0	17.5	8	4.0	34.0	8	3.0	37.0	8	4.0
	312/314/316/318/319	0.7	14.5	8	3.0	17.5	8	4.0	34.0	8	3.0	37.0	8	4.0
	326/332	0.5	14.5	8	2.5	—	—	—	34.0	8	2.5	—	—	—
3K	302	3.0	19.0	10	4.5	23.0	10	5.5	48.0	10	4.5	53.0	10	5.5
	303/304	2.0	18.0	10	4.0	22.0	10	5.5	48.0	10	4.0	52.0	10	5.5
	305/306/307	1.6	18.0	10	3.5	22.0	10	5.5	48.0	10	3.5	52.0	10	5.5
	308/310	1.3	17.0	10	3.5	20.0	10	4.0	47.0	10	3.5	50.0	10	4.0
	309	1.3	17.0	10	3.5	20.0	10	4.0	47.0	10	3.5	50.0	10	4.0
		2.0			4.0			4.0			5.5			
	312/314/316/318	0.9	16.0	10	3.0	20.0	10	4.0	46.0	10	3.0	50.0	10	4.0
	320/322/324/326/330	0.7	16.0	10	3.0	20.0	10	4.0	46.0	10	3.0	50.0	10	4.0
4K	304	3.0	22.0	11	4.5	25.0	11	5.5	52.0	11	4.5	55.0	11	5.5
	306/307	2.0	21.0	11	4.0	25.0	11	5.5	51.0	11	4.0	55.0	11	5.5
	310	1.6	21.0	11	3.5	25.0	11	5.5	51.0	11	3.5	55.0	11	5.5
	312	1.3	21.0	11	3.5	25.0	11	4.0	51.0	11	3.5	55.0	11	4.0
	316/320/324/330	0.9	21.0	11	3.0	23.0	11	4.0	51.0	11	3.0	53.0	11	4.0
	340/348	0.7	21.0	11	3.0	23.0	11	4.0	51.0	11	3.0	53.0	11	4.0
5K	302	6.0	24.0	14	7.5	—	—	—	—	—	—	—	—	—
	304	4.0	29.0	14	5.5	32.0	14	7.0	—	—	—	—	—	—
	310	3.0	29.0	14	4.5	32.0	14	7.0	—	—	—	—	—	—
	314/316	2.0	28.0	14	4.0	31.0	14	5.5	—	—	—	—	—	—
	320	1.6	28.0	14	3.5	31.0	14	5.5	—	—	—	—	—	—
	330/340/348	1.3	27.0	14	3.5	30.0	14	4.0	—	—	—	—	—	—
	350/354/364	0.9	27.0	14	3.0	30.0	14	4.0	—	—	—	—	—	—

Note: ¹⁾ crimp contacts are available only for connectors fitted with male contacts.
 The tolerances on these dimensions are: L: ± 0.5 mm; S: ± 0.5 mm; T: ± 0.2 mm.

Cable stripping lengths (K series)

M2 straight plug and socket with oversize cable collet, clamping type K (solder or crimp contacts)

			Connector		ø contact A (mm)	Cable stripping lengths (mm)						
						M2						
			Series	Type		Solder			Crimp			
						L	S	T	L	S	T	
1K	302/303	1.3		302/303	1.3	24.5	8	3.5	28.5	8	4.0	
	304/305	0.9		304/305	0.9	24.5	8	3.0	28.5	8	4.0	
	306/307/308	0.7		306/307/308	0.7	24.5	8	3.0	28.5	8	4.0	
	310/314/316	0.5		310/314/316	0.5	27.0	8	2.5	—	—	—	
2K	302	2.0		302	2.0	29.5	10	4.0	32.5	10	5.5	
	303	1.6		303	1.6	29.5	10	3.5	32.5	10	5.5	
	304/305/306/307	1.3		304/305/306/307	1.3	28.5	10	3.5	30.5	10	4.0	
	308/310	0.9		308/310	0.9	27.5	10	3.0	30.5	10	4.0	
	312/314/316/318/319	0.7		312/314/316/318/319	0.7	27.5	10	3.0	30.5	10	4.0	
	326/332	0.5		326/332	0.5	27.5	10	2.5	—	—	—	
3K	302	3.0		302	3.0	37.0	11	4.5	41.0	11	5.5	
	303/304	2.0		303/304	2.0	36.0	11	4.0	40.0	11	5.5	
	305/306/307	1.6		305/306/307	1.6	36.0	11	3.5	40.0	11	5.5	
	308/310	1.3		308/310	1.3	35.0	11	3.5	38.0	11	4.0	
	309	1.3		309	1.3	35.0	11	3.5	38.0	11	4.0	
		2.0			2.0			4.0			5.5	
	312/314/316/318	0.9		312/314/316/318	0.9	34.0	11	3.0	38.0	11	4.0	
	320/322/324/326/330	0.7		320/322/324/326/330	0.7	34.0	11	3.0	38.0	11	4.0	
4K	304	3.0		304	3.0	45.0	14	4.5	48.0	14	5.5	
	306/307	2.0		306/307	2.0	44.0	14	4.0	48.0	14	5.5	
	310	1.6		310	1.6	44.0	14	3.5	48.0	14	5.5	
	312	1.3		312	1.3	44.0	14	3.5	48.0	14	4.0	
	316/320/324/330	0.9		316/320/324/330	0.9	44.0	14	3.0	46.0	14	4.0	
	340/348	0.7		340/348	0.7	44.0	14	3.0	46.0	14	4.0	

Note:
 the tolerances on these dimensions
 are: L: ± 0.5 mm
 S: ± 0.5 mm
 T: ± 0.2 mm

Cable stripping lengths for unipole connectors (S series)

M1 straight plugs and sockets with cable collet, clamping type C (solder contacts)

M3 elbow plugs (90°) with cable collet, clamping type C (solder contacts)

M5 straight plugs and sockets with cable crimping type E (crimp contacts)

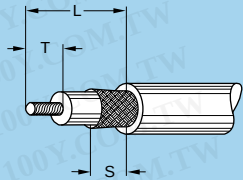
M6 elbow plugs (90°) with cable crimping type E (crimp contacts)

The diagram illustrates a cable connector assembly. It features a cylindrical connector body with a threaded section. A cable is inserted into the body, with its outer jacket stripped back. Dimension lines indicate the following measurements: 'L' is the total length of the connector body; 'T' is the length of the threaded section; and 'S' is the length of the stripped cable jacket.

Connector			ø contact A (mm)	Cable stripping lengths (mm)											
				M1			M5			M3			M6		
				Solder			Crimp			Solder			Crimp		
Series	Type			L	S	T	L	S	T	L	S	T	L	S	T
00	113		1.3	9	4	4	19	5	7	7	4	2	17	5	7
0S	116		1.6	11	5	4	–	–	–	8	5	2	–	–	–
1S	120		2.0	13	8	5	–	–	–	13	8	2	–	–	–
	130		3.0	13	8	5	–	–	–	13	8	2	–	–	–
2S	130		3.0	18	9	6	–	–	–	15	9	2	–	–	–
	140		4.0	18	9	6	–	–	–	15	9	2	–	–	–
3S	140		4.0	21	9	7	–	–	–	19	9	2	–	–	–
	160		6.0	21	9	9	–	–	–	19	9	2	–	–	–
4S	140		4.0	25	9	7	–	–	–	23	9	2	–	–	–
	160		6.0	25	9	9	–	–	–	23	9	2	–	–	–
5S	112		12.0	12	15	12	–	–	–	–	–	–	–	–	–

Cable stripping lengths for unipole connectors (S series)

M2 straight plugs and sockets with oversize cable collet, clamping type K (solder contacts)



Connector		ø contact A (mm)	Cable stripping lengths (mm)		
Series	Type		M2		
			Solder		
			L	S	T
00	113	1.3	16	4	4
0S	116	1.6	19	5	4
1S	120	2.0	25	8	5
	130	3.0	25	8	5
2S	130	3.0	34	9	6
	140	4.0	34	9	6
3S	140	4.0	39	9	7
	160	6.0	39	9	9
4S	140	4.0	50	9	7
	160	6.0	50	9	9

勝特力材料 886-3-5753170
 勝特力电子(上海) 86-21-34970699
 勝特力电子(深圳) 86-755-83298787
[Http://www.100y.com.tw](http://www.100y.com.tw)

Cable stripping lengths for multipole connectors (S series)

M1 straight plugs and sockets with cable collet, clamping type C (solder or crimp contacts)

M3 elbow plugs (90°) with cable collet, clamping type C (solder or crimp contacts)

A technical diagram of a cable connector. It shows a cross-section of a cable with multiple conductors. The total length of the connector is labeled 'L'. The length of the stripped conductors is labeled 'T'. The length of the conductors that are inserted into the connector's contact points is labeled 'S'.

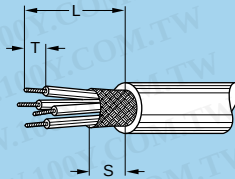
Connector	Series	Type	ø contact A (mm)	Cable stripping lengths (mm)																			
				M1						M3													
				Solder			Crimp			Solder			Crimp										
				L	S	T	L	S	T	L	S	T	L	S	T								
0S		302	0.9	11	5	3.0	15	5	4.0	11	5	3.0	15	5	4.0								
		303/304	0.7	11	5	2.5	15	5	4.0	11	5	2.5	15	5	4.0								
1S		302	1.3	13	8	3.0	17	8	4.0	13	8	3.0	17	8	4.0								
		303/304	0.9	13	8	3.0	17	8	4.0	13	8	3.0	17	8	4.0								
		305	0.9	13	8	3.0	17	8	4.0	13	8	3.0	17	8	4.0								
			0.7	13	8	2.5	17	8	4.0	13	8	2.5	17	8	4.0								
		306	0.7	13	8	2.5	17	8	4.0	13	8	2.5	17	8	4.0								
				13	8	2.5	17	8	4.0	13	8	2.5	17	8	4.0								
2S		302	1.6	18	9	4.5	22	9	5.5	18	9	4.5	22	9	5.5								
		303/304/305/306	1.3	18	9	4.0	22	9	4.0	18	9	4.0	22	9	4.0								
		307	1.3	18	9	4.0	22	9	4.0	18	9	4.0	22	9	4.0								
			0.9	18	9	4.0	22	9	4.0	18	9	4.0	22	9	4.0								
		308/310	0.9	18	9	4.0	22	9	4.0	18	9	4.0	22	9	4.0								
3S		302/303/304	2.0	21	9	5.0	—	—	—	—	—	—	—	—	—								
		305	2.0	21	9	5.0	—	—	—	—	—	—	—	—	—								
			1.3	21	9	4.0	—	—	—	—	—	—	—	—	—								
		306/307/308/310	1.3	21	9	4.0	—	—	—	—	—	—	—	—	—								
		312/313/314/316/318	0.9	21	9	4.0	—	—	—	—	—	—	—	—	—								
4S		302	4.0	25	9	7.0	—	—	—	—	—	—	—	—	—								
		303/304	3.0	25	9	6.0	—	—	—	—	—	—	—	—	—								
		305	3.0	25	9	6.0	—	—	—	—	—	—	—	—	—								
			2.0	25	9	5.0	—	—	—	—	—	—	—	—	—								
		306	2.0	25	9	5.0	—	—	—	—	—	—	—	—	—								
			2.0	25	9	5.0	—	—	—	—	—	—	—	—	—								
		307	1.3	25	9	4.0	—	—	—	—	—	—	—	—	—								
			1.3	25	9	4.0	—	—	—	—	—	—	—	—	—								
		308/309/310	1.3	25	9	4.0	—	—	—	—	—	—	—	—	—								
		312/313/314	1.3	25	9	4.0	—	—	—	—	—	—	—	—	—								
		316/318/320/322/324	0.9	25	9	4.0	—	—	—	—	—	—	—	—	—								

Cable stripping lengths for multipole connectors (S series)

M1 straight plugs and sockets with cable collet, clamping type C (solder contacts)

M3 elbow plugs (90°) with cable collet, clamping type C (solder contacts)

勝特力材料 886-3-5753170
 勝特力电子(上海) 86-21-34970699
 勝特力电子(深圳) 86-755-83298787
[Http://www.100y.com.tw](http://www.100y.com.tw)

			ø contact A (mm)	Cable stripping lengths (mm)					
				M1			M3		
				Solder			Solder		
				L	S	T	L	S	T
	5S	302	6.0	35	22	9.0	35	22	9.0
		303	6.0	35	22	9.0	35	22	9.0
			4.0	35	22	7.0	35	22	7.0
		304	4.0	35	22	7.0	35	22	7.0
		305	4.0	35	22	7.0	35	22	7.0
			3.0	35	22	6.0	35	22	6.0
		306/308	3.0	35	22	6.0	35	22	6.0
		310/312	2.0	35	22	7.0	35	22	7.0
		314	3.0	35	22	6.0	35	22	6.0
			2.0	35	22	7.0	35	22	7.0
		316	2.0	35	22	7.0	35	22	7.0
		318	3.0	35	22	6.0	35	22	6.0
			1.6	35	22	4.5	35	22	4.5
		320	1.6	35	22	4.5	35	22	4.5
		322	3.0	35	22	6.0	35	22	6.0
			1.6	35	22	4.5	35	22	4.5
		324	1.6	35	22	4.5	35	22	4.5
		330/336/340/344/348	1.3	35	22	4.0	35	22	4.0
	6S	304	8.0	37	15	10.0	37	15	10.0
		312/318	4.0	37	15	7.0	37	15	7.0
		320/324	3.0	37	15	6.0	37	15	6.0
		330/336/348	2.0	37	15	7.0	37	15	7.0
		360	1.6	37	15	4.5	37	15	4.5
		364/372	1.3	37	15	4.0	37	15	4.0
		106	0.9	37	15	4.0	37	15	4.0

Cable stripping lengths for multipole connectors (S series)

M4 straight plug with cable collet, clamping type D or M (solder or crimp contacts)

Connector		ø contact A (mm)	
Series	Type		
2S	302	1.6	
	303/304/305/306	1.3	
	307	1.3	
		0.9	
	308/310	0.9	

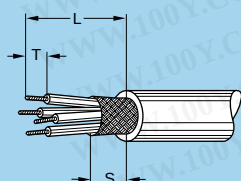
Cable stripping lengths (mm)								
M4								
Solder			Crimp					
L	S	T	L	S	T			
48	9	4.5	52	9	5.5			
48	9	4.0	52	9	4.0			
48	9	4.0	52	9	4.0			
48	9	4.0	52	9	4.0			
48	9	4.0	52	9	4.0			

Cable stripping lengths for multipole connectors (S series)

M2 straight plugs and sockets with oversize cable collet, clamping type K (solder or crimp contacts)

	Connector		ø contact A (mm)	Cable stripping lengths (mm)					
	Series	Type		M2					
				Solder			Crimp		
				L	S	T	L	S	T
0S	302	0.9	19	5	3.0	23	5	4.0	
	303/304	0.7	19	5	2.5	23	5	4.0	
1S	302	1.3	25	8	3.0	28	8	4.0	
	303/304	0.9	25	8	3.0	28	8	4.0	
	305	0.9	25	8	3.0	28	8	4.0	
		0.7	25	8	2.5	28	8	4.0	
	306	0.7	25	8	2.5	28	8	4.0	
2S	302	1.6	34	9	4.5	38	9	5.5	
	303/304/305/306	1.3	34	9	4.0	38	9	4.0	
	307	1.3	34	9	4.0	38	9	4.0	
		0.9	34	9	4.0	38	9	4.0	
	308/310	0.9	34	9	4.0	38	9	4.0	
3S	302/303/304	2.0	39	9	5.0	—	—	—	
	305	2.0	39	9	5.0	—	—	—	
		1.3	39	9	4.0	—	—	—	
	306/307/308/310	1.3	39	9	4.0	—	—	—	
	312/313/314/316/318	0.9	39	9	4.0	—	—	—	
4S	302	4.0	50	9	7.0	—	—	—	
	303/304	3.0	50	9	6.0	—	—	—	
	305	3.0	50	9	6.0	—	—	—	
		2.0	50	9	5.0	—	—	—	
	306	2.0	50	9	5.0	—	—	—	
	307	2.0	50	9	5.0	—	—	—	
		1.3	50	9	4.0	—	—	—	
	308/309/310	1.3	50	9	4.0	—	—	—	
	312/313/314	1.3	50	9	4.0	—	—	—	
	316/318/320/322/324	0.9	50	9	4.0	—	—	—	
5S	302	6.0	70	22	9.0	—	—	—	
	303	6.0	70	22	9.0	—	—	—	
		4.0	70	22	7.0	—	—	—	
	304	4.0	70	22	7.0	—	—	—	
	305	4.0	70	22	7.0	—	—	—	
		3.0	70	22	6.0	—	—	—	
	306/308	3.0	70	22	6.0	—	—	—	
	310/312	2.0	70	22	7.0	—	—	—	
	314	3.0	70	22	6.0	—	—	—	
		2.0	70	22	7.0	—	—	—	
	316	2.0	70	22	7.0	—	—	—	
	318	3.0	70	22	6.0	—	—	—	
		1.6	70	22	4.5	—	—	—	
	320	1.6	70	22	4.5	—	—	—	
	322	3.0	70	22	6.0	—	—	—	
		1.6	70	22	4.5	—	—	—	
	324	1.6	70	22	4.5	—	—	—	
	330/336/340/344/348	1.3	70	22	4.0	—	—	—	

The diagram illustrates a cable cross-section with three dimensions labeled: L (total length of the stripped section), T (length of the outer jacket), and S (length of the individual conductors). The cable is shown with a central braid and multiple inner conductors.



Cable stripping lengths for unipole connectors (E series)

M1 straight plugs and sockets with cable collet, clamping type C (solder contacts)

M3 elbow plugs (90°) with cable collet, clamping type C (solder contacts)

勝特力材料 886-3-5753170
 勝特力电子(上海) 86-21-34970699
 勝特力电子(深圳) 86-755-83298787
[Http://www.100y.com.tw](http://www.100y.com.tw)

Connector			Cable stripping lengths (mm)					
Series	Type	ø contact A (mm)	M1			M3		
			Solder			Solder		
			L	S	T	L	S	T
0E	116	1.6	9	5	4	20	5	4
1E	120	2.0	12	8	5	25	8	5
	130	3.0	13	8	5	25	8	5
2E	130	3.0	16	9	6	33	9	6
	140	4.0	15	9	6	33	9	6
3E	140	4.0	19	9	7	40	9	7
	160	6.0	20	9	9	40	9	9
4E	160	6.0	23	9	9	50	9	9
5E	112	12.0	12	15	12	—	—	—

Cable stripping lengths for unipole connectors (E series)

M2 straight plugs and sockets with oversize cable collet, clamping type K (solder contacts)

Connector			Cable stripping lengths (mm)		
Series	Type	ø contact A (mm)	M2		
			Solder		
			L	S	T
1E	120	2.0	25	8	5
	130	3.0	26	8	5
2E	130	3.0	28	9	6
	140	4.0	27	9	6
3E	140	4.0	36	9	7
	160	6.0	37	9	9
4E	160	6.0	50	9	9

Cable stripping lengths for multipole connectors (E series)

M1 straight plugs and sockets with cable collet, clamping type C (solder or crimp contacts)

M3 elbow plugs (90°) with cable collet, clamping type C (solder or crimp contacts)

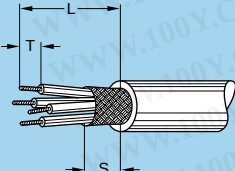
Connector			Cable stripping lengths (mm)											
Series	Type	ø contact A (mm)	M1						M3					
			Solder			Crimp			Solder			Crimp		
			L	S	T	L	S	T	L	S	T	L	S	T
0E	302	0.9	8	5	3.0	12	5	4.0	19	5	3.0	23	5	4.0
	303/304	0.7	8	5	2.5	12	5	4.0	19	5	2.5	23	5	4.0
1E	302	1.3	11	8	3.0	15	8	4.0	24	8	3.0	28	8	4.0
	303/304	0.9	11	8	3.0	15	8	4.0	24	8	3.0	28	8	4.0
	305	0.9	11	8	3.0	15	8	4.0	24	8	3.0	28	8	4.0
	306	0.7	11	8	2.5	15	8	4.0	24	8	2.5	28	8	4.0
	307	0.7	11	8	2.5	15	8	4.0	24	8	2.5	28	8	4.0
2E	302	1.6	15	9	4.5	19	9	5.5	33	9	4.5	37	9	5.5
	303/304/305/306	1.3	15	9	4.0	19	9	4.0	33	9	4.0	37	9	4.0
	307	1.3	15	9	4.0	19	9	4.0	33	9	4.0	37	9	4.0
	308/310	0.9	15	9	4.0	19	9	4.0	33	9	4.0	37	9	4.0
	308/310	0.9	15	9	4.0	19	9	4.0	33	9	4.0	37	9	4.0

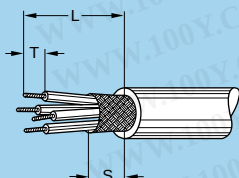
Cable stripping lengths for multipole connectors (E series)

M1 straight plugs and sockets with cable collet, clamping type C (solder contacts)

M3 elbow plugs (90°) with cable collet, clamping type C (solder contacts)

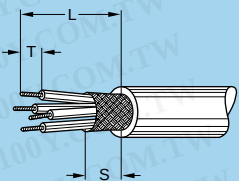
勝特力材料 886-3-5753170
 勝特力电子(上海) 86-21-34970699
 勝特力电子(深圳) 86-755-83298787
[Http://www.100y.com.tw](http://www.100y.com.tw)

	Connector		ø contact A (mm)	Cable stripping lengths (mm)					
	Series	Type		M1			M3		
				Solder			Solder		
				L	S	T	L	S	T
	3E	302/303/304	2.0	18	9	5.0	39	9	5.0
		305	2.0	18	9	5.0	39	9	5.0
			1.3	18	9	4.0	39	9	4.0
			306/307/308/310	1.3	18	9	4.0	39	9
		312/313/314/316/318	0.9	18	9	4.0	39	9	4.0
	4E	302	4.0	23	9	7.0	50	9	7.0
		303/304	3.0	23	9	6.0	50	9	6.0
		305	3.0	23	9	6.0	50	9	6.0
			2.0	23	9	5.0	50	9	5.0
		306	2.0	23	9	5.0	50	9	5.0
		307	2.0	23	9	5.0	50	9	5.0
			1.3	23	9	4.0	50	9	4.0
		308/309/310/312/314	1.3	23	9	4.0	50	9	4.0
		316/318/320/322/324	0.9	23	9	4.0	50	9	4.0
	5E	302	6.0	48	15	9.0	—	—	—
		303	6.0	48	15	9.0	—	—	—
			4.0	48	15	7.0	—	—	—
		304	4.0	48	15	7.0	—	—	—
		305	4.0	48	15	7.0	—	—	—
			3.0	48	15	6.0	—	—	—
306/308		3.0	48	15	6.0	—	—	—	
310/312		2.0	48	15	7.0	—	—	—	
314		3.0	48	15	6.0	—	—	—	
		2.0	48	15	7.0	—	—	—	
316		2.0	48	15	7.0	—	—	—	
318		3.0	48	15	6.0	—	—	—	
		1.6	48	15	4.5	—	—	—	
320		1.6	48	15	4.5	—	—	—	
322		3.0	48	15	6.0	—	—	—	
		1.6	48	15	4.5	—	—	—	
324		1.6	48	15	4.5	—	—	—	
330/336/340/344/348		1.3	48	15	4.0	—	—	—	
6E	303	6.0	70	30	9.0	—	—	—	
	304	8.0	70	30	10.0	—	—	—	
	312	5.0	70	30	8.0	—	—	—	
	316/320/324	3.0	70	30	6.0	—	—	—	
	330/332	2.0	70	30	7.0	—	—	—	
	336	1.3	70	30	4.0	—	—	—	
		5.0	70	30	8.0	—	—	—	
	340/348	2.0	70	30	7.0	—	—	—	
	360/362	1.6	70	30	4.5	—	—	—	
	364/372	1.3	70	30	4.0	—	—	—	
	106	0.9	70	30	4.0	—	—	—	



Cable stripping lengths for multipole connectors (E series)

M2 straight plugs and sockets with oversize cable collet, clamping type K (solder or crimp contacts)



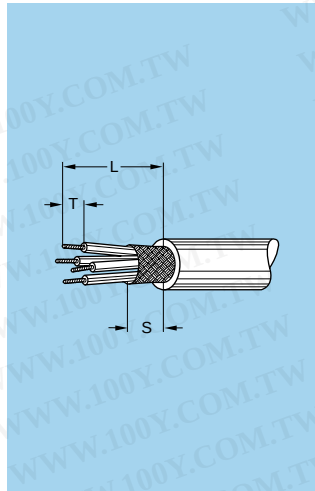
Connector			ø contact A (mm)	Cable stripping lengths (mm)					
Series	Type	M2							
		Solder			Crimp				
				L	S	T	L	S	T
	1E	302	1.3	24	8	3.0	28	8	4.0
		303/304	0.9	24	8	3.0	28	8	4.0
		305	0.9	24	8	3.0	28	8	4.0
			0.7	24	8	2.5	28	8	4.0
		306	0.7	24	8	2.5	28	8	4.0
	2E	302	1.6	27	9	4.5	31	9	5.5
		303/304/305/306	1.3	27	9	4.0	31	9	4.0
		307	1.3	27	9	4.0	31	9	4.0
			0.9	27	9	4.0	31	9	4.0
		308/310	0.9	27	9	4.0	31	9	4.0
	3E	302/303/304	2.0	35	9	5.0	—	—	—
		305	2.0	35	9	5.0	—	—	—
			1.3	35	9	4.0	—	—	—
		306/307/308/310	1.3	35	9	4.0	—	—	—
		312/313/314/316/318	0.9	35	9	4.0	—	—	—
	4E	302	4.0	50	9	7.0	—	—	—
		303/304	3.0	50	9	6.0	—	—	—
		305	3.0	50	9	6.0	—	—	—
			2.0	50	9	5.0	—	—	—
		306	2.0	50	9	5.0	—	—	—
		307	2.0	50	9	5.0	—	—	—
			1.3	50	9	4.0	—	—	—
		308/309/310/312/314	1.3	50	9	4.0	—	—	—
		316/318/320/322/324	0.9	50	9	4.0	—	—	—

Cable stripping lengths for multipole connectors (L series)

M1 straight plugs and sockets with cable collet, clamping type C (solder or crimp contacts)

M3 elbow plugs (90°) with cable collet, clamping type C (solder or crimp contacts)

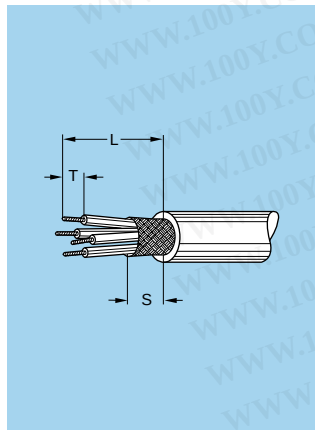
勝特力材料 886-3-5753170
 勝特力电子(上海) 86-21-34970699
 勝特力电子(深圳) 86-755-83298787
[Http://www.100y.com.tw](http://www.100y.com.tw)



Connector		ø contact A (mm)	Cable stripping lengths (mm)											
Series	Type		M1						M3					
			Solder			Crimp			Solder			Crimp		
			L	S	T	L	S	T	L	S	T	L	S	T
0L	302	0.9	10.5	6	3.0	12.0	6	4.0	23.5	6	3.0	25.0	6	4.0
	303/304	0.7	10.5	6	2.5	12.0	6	4.0	23.5	6	2.5	25.0	6	4.0
1L	302	1.3	12.5	7	3.0	14.5	7	4.0	29.0	7	3.0	31.0	7	4.0
	303/304	0.9	12.5	7	3.0	14.5	7	4.0	29.0	7	3.0	31.0	7	4.0
	305	0.9	12.5	7	3.0	14.5	7	4.0	29.0	7	3.0	31.0	7	4.0
		0.7	12.5	7	2.5	14.5	7	4.0	29.0	7	2.5	31.0	7	4.0
	306	0.7	12.5	7	2.5	14.5	7	4.0	29.0	7	2.5	31.0	7	4.0
2L	302	1.6	18.0	8	4.5	19.5	8	5.5	37.5	8	4.5	39.0	8	5.5
	303/304/305/306	1.3	17.0	8	4.0	17.5	8	4.0	36.5	8	4.0	37.0	8	4.0
	307	1.3	17.0	8	4.0	17.5	8	4.0	36.5	8	4.0	37.0	8	4.0
		0.9	16.0	8	4.0	17.5	8	4.0	35.5	8	4.0	37.0	8	4.0
	308/310	0.9	16.0	8	4.0	17.5	8	4.0	35.5	8	4.0	37.0	8	4.0

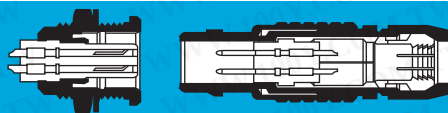
Cable stripping lengths for multipole connectors (L series)

M2 straight plugs and sockets with oversize cable collet, clamping type K (solder or crimp contacts)



Connector		Ø contact A (mm)	Cable stripping lengths (mm)					
Series	Type		M2					
			Solder			Crimp		
			L	S	T	L	S	T
1L	302	1.3	26.5	8	3.0	28.5	8	4.0
	303/304	0.9	26.5	8	3.0	28.5	8	4.0
	305	0.9	26.5	8	3.0	28.5	8	4.0
		0.7	26.5	8	2.5	28.5	8	4.0
	306	0.7	26.5	8	2.5	28.5	8	4.0
2L	302	1.6	31.0	10	4.5	32.5	10	5.5
	303/304/305/306	1.3	30.0	10	4.0	30.5	10	4.0
	307	1.3	30.0	10	4.0	30.5	10	4.0
		0.9	29.0	10	4.0	30.5	10	4.0
	308/310	0.9	29.0	10	4.0	30.5	10	4.0

Technical characteristics



勝特力材料 886-3-5753170
 勝特力电子(上海) 86-21-34970699
 勝特力电子(深圳) 86-755-83298787
[Http://www.100y.com.tw](http://www.100y.com.tw)

Outer shell

Brass

In most cases, LEMO connectors have a brass outer shell which is suitable for most general purpose applications, including civilian and military. The brass outer shells have a chrome nickel-plated surface which ensures very good protection against industrial atmosphere, salt air and most corrosive agents.

Alternative protective coatings are available to satisfy other specific environmental conditions:

- electrolytic nickel
- nickel-gold
- nickel-black chrome. After the black chrome treatment, the part is coated with a protective organic film.

Stainless steel

For applications where there are severe environmental conditions that may rapidly damage the surface finish, we recommend using stainless steel. The AISI 303 stainless steel is a material for general use adapted to most applications requiring a product made entirely of stainless metal.

For the nuclear industry where elements are subject to radiation and to vaporous nitric acid, we offer AISI 304 stainless steel.

Grade AISI 316L is recommended for medical applications, highly demanding with regard to non-corrosiveness. This material is also used for connector shells soldered by electronic beam onto a device made of the same stainless steel. These parts have no surface treatment.

Aluminium alloy

The aluminium alloy outer shells find numerous applications where light weight is a predominant factor; such as in the aeronautics and space industries, and for portable and mobile equipment.

These materials have high mechanical strength and excellent resistance to corrosion. The shell surface is protected by anodizing which is available in six colours: blue, yellow, black, red, green, and natural.

Plastic materials

Some connector model shells can be made of plastic. This solution offers optimum electrical insulating properties particularly suitable for medical applications. Black Polyoxymethylene (POM) is particularly adapted to products of the 00 or S series.

Grey or white polysulfone (PSU) and beige PEEK offers excellent mechanical properties and is suitable for gas or vapour sterilization.

Some models of the 2B and 3B series are available with an outer shell of cream-coloured polyphenylsulfone (PPSU). We recommend this material particularly for applications where products are to withstand hundreds of vapour sterilization cycles.

Bridge plug or plugs with parallel sockets are made of polyamide (PA.6) available in 9 colours: blue, white, grey, yellow, brown, black, red, orange and green.

Some elbow socket shells for printed circuits are over-moulded in polyphenylene sulfide (PPS).

Other metallic components

In general, most metallic components are manufactured in brass. However, bronze or beryllium copper are used where good elasticity is required (for example: earthing crown). Depending on the application, these parts have electrolytic nickel or nickel-gold plating.

These parts can also be manufactured in stainless steel.

Sealing gasket

In general, sealing gaskets are made of silicone rubber MQ/MVQ. However, for vacuumtight sockets and couplers, gaskets are made of fluorosilicone rubber (FPM).

Sealing resin

An epoxy resin is used to seal both watertight and vacuumtight socket and coupler models.

Materials and Treatments

Component	Material (Standard)	Surface treatment (µm)										Notes
		chrome			nickel		gold			black chr.		
		Cu	Ni	Cr	Cu	Ni	Cu	Ni	Au	Ni	Cr	
Outer shell, collet nut, conical nut or notched nut and oversized collet	Brass (UNS C 38500)	0.5	3	0.3	0.5	3	0.5	3	0.5	1	2	
	Stainless steel (AISI 303, 304 or 316L)	without treatment										
	Aluminium alloy (AA 6262A or AA 6023)	–	–	–	–	5	–	–	–	–	–	1)
	Aluminium alloy (AA 6262A or AA 6023)	anodized										
	POM (Delrin® or Ertacetal®), Polyoxymethylene, black	–										2)
	PEEK, Polyether ethercetone, beige	–										3)
	PSU (Udel®), Polysulfone, grey or white	–										4)
	PPSU (Radel®), Polyphenylsulfone, cream	–										4)
	PA.6 (Grilon®), Polyamid	–										5)
PPS (Ryton®), Polyphenylene sulfide, brown	–										6)	
Earthing crown	Bronze (UNS C 54400) or special brass	–	–	–	0.5	3	0.5	3	1.0	–	–	7)
	Beryllium Copper (UNS C 17300)	–	–	–	0.5	3	0.5	3	1.0	–	–	8)
	Stainless steel (AISI 416 or 316L)	without treatment										9)
Latch sleeve	Special brass	0.5	3	0.3	0.5	3	0.5	3	0.5	–	–	
	Stainless steel (AISI 416 or 316L)	without treatment										9)
Locking washer	Bronze (UNS C 52100)	–	–	–	0.5	3	0.5	3	0.5	–	–	
Hexagonal or round nut	Brass (UNS C 38500)											
	Stainless steel (AISI 303, 304 or 316L)	without treatment										10)
	Aluminium alloy (AA 6262A or AA 6023)	anodized natural										10)
Other metallic components	Brass (UNS C 38500)	–	–	–	0.5	3	0.5	3	0.5	–	–	
	Stainless steel (AISI 303, 304 or 316L)	without treatment										
O-ring and gaskets	Silicone MQ/MVQ or FPM/FKM (Viton®)	–										11)
Sealing resin	Epoxy (Araldite® or Stycast®)	–										

Notes:

standards for surface treatment are as follows:

- chrome-plated: FS QQ-C-320B
- nickel-plated: FS QQ-N-290A, or MIL-C-26074C
- gold-plated: ISO 4523
- black chrome: MIL-C-14538C with a minimum of 10 µm of lacquer protection
- 1) anthracite colour (other colours upon request)
- 2) for FFP, PCP and ERN models of the 0S to 3S series
- 3) for FFP, PCP and ERN models of the 0S to 3S series and FGG and ENG models of the 1B, 3B and 4B series

- 4) for the FGY and ENY models of the 2B and 3B series
- 5) for bridge plugs of the B series
- 6) for S and B series elbow sockets for printed circuits
- 7) gold-plating for unipole types
- 8) used in 00 series free and fixed sockets and couplers
- 9) AISI 416 steel is used with shells made of AISI 303 or 304
- 10) delivered with free and fixed sockets with aluminium alloy or stainless steel shell
- 11) FPM/FKM (Viton®) o-ring and gaskets are installed upon special request. However standard for vacuumtight models.

Technical characteristics of plastic materials

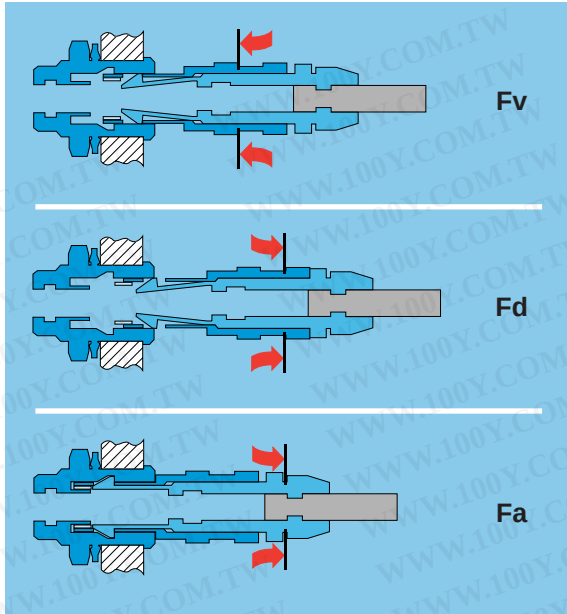
Type	Standard	Units	POM	PEEK	PSU	PPSU	PPS	PA.6	Silicone	FPM	Epoxy
Density	ASTM D 792	–	1.4	1.3-1.4	1.24	1.3	1.67	1.14	~1.2	~1.9	1.58
Tensile strength (at 23°C)	ASTM D 638/ ISO R527	MPa	70-80	92-142	70	70	121	55	> 9	> 12	16
Flexural strength (at 23°C)	ASTM D 790/ ISO R178	MPa	–	170	106	91	179	75	–	–	24
Dielectric strength	ASTM D 149/IEC 60243	kV/mm	60	19-25	17-20	15	17	35	18-30	–	15
Volume resis. at 50% HR and 23°C	ASTM D 257/IEC 60093	Ω • cm	10 ¹⁵	10 ¹⁶	5x10 ¹⁶	–	10 ¹⁶	10 ¹⁵	10 ¹⁴	–	10 ¹⁴
Surface resistivity	ASTM D 257	Ω	10 ¹³	10 ¹⁵	–	–	–	–	–	–	–
Thermal conductivity	ASTM C 177	W/K • m	0.31	0.25	0.26	–	0.3	–	–	–	0.8
Comparative tracking index	IEC 60112	V	CTI 600	CTI 150	CTI 150	–	CTI 200	CTI 600	–	–	CTI>600
Maxi. continuous service temperature	UL 746	°C	90	250	140	180	220	80	200	200	80
Min. continuous service temperature	UL 746	°C	-50	-55	-60	-50	-60	-40	-50	-20	-20
Max. short-time service temperature	–	°C	140	300	160	200	250	150	> 250	300	120
Water absorption in 24h at 23°C	ASTM D 570/ISO R62A	%	0.85	0.12	0.3	0.37	< 0.05	> 3	–	–	0.25
Radiation resistance	–	Gy ¹⁾	8x10 ³	10 ⁷	10 ⁵	–	> 10 ⁷	5x10 ³	10 ⁵	8x10 ⁴	2x10 ⁶
Flammability rating	ASTM D 635/UL 94	–	HB	V-0/3.2	V-0/4.4	V-0/1.6	V-0/5V	V-2	–	–	V-0/4
Resistance to steam sterilization	–	–	bad	excel.	good	excel.	excel.	bad	good	good	bad

Notes: 1) 1 Gy (Gray) = 100 rad

ASTM = American Society for Testing Material
ISO = International Standards Organisation

UL = Underwriters Laboratories
IEC = International Electrotechnical Commission

Mechanical latching characteristics



F_v: average latching force.

F_d: average unmating force with axial pull on the outer shell.

F_a: average pull force with axial pull on the collet nut

Notes: forces were measured on outer shells **not fitted with contacts**.

Mechanical endurance: 5000 cycles.

Mechanical endurance represents the number of cycles after which the latching system is still effective (1 cycle = 1 latching/unlatching at 300 cycles per hour). The values were measured according to the standard IEC 60512-7 test 13a.

Standard series

Force (N)	Series									
	00	0S	1D	1S	2C	2S	3S	4S	5S	6S
F _v	9	14	14	15	12	17	20	40	60	70
F _d	7	9	11	10	12	11	14	25	40	55
F _a	120	140	300	250	400	350	500	650	750	900

Watertight series

Force (N)	Series									
	0E	0L	1E	1L	2E	2L	3E	4E	5E	6E
F _v	14	14	16	16	20	20	32	65	85	100
F _d	9	9	10	10	13	13	25	40	60	75
F _a	250	250	300	300	400	400	550	700	800	900

Keyed series

Force (N)	Series							
	00	0B	1B	2B	2G	3B	4B	5B
F _v	9	10	14	15	12	17	39	48
F _d	7	8	11	12	12	14	38	38
F _a	120	250	300	400	400	550	700	800

Keyed watertight series

Force (N)	Series					
	0K	1K	2K	3K	4K	5K
F _v	14	16	20	32	65	85
F _d	9	10	13	25	40	60
F _a	250	300	400	550	700	800

Notes: 1N = 0.102 kg.

Electromagnetic compatibility (EMC) and shielding efficiency

The electromagnetic compatibility of a device can only be ensured by meeting a number of basic rules with the design of the device and by carefully selecting components, cables and connectors.

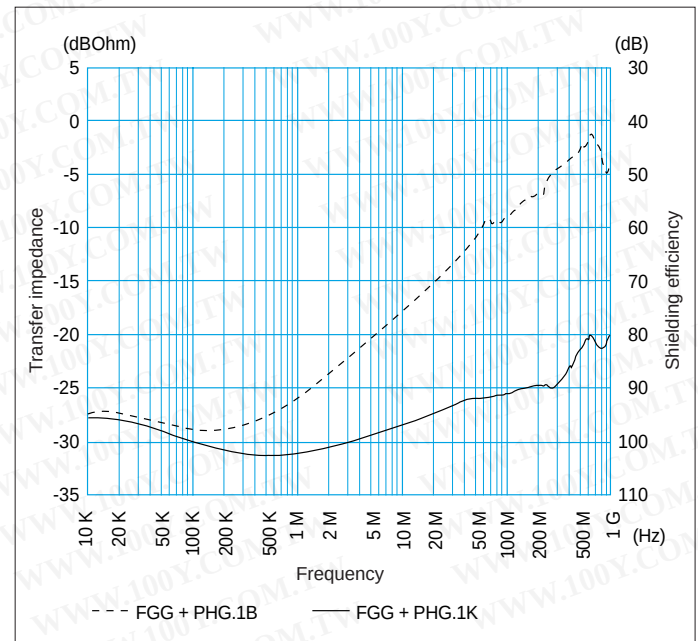
Electrical and electronic devices are to be designed to ensure the following:

- reduce the emission of generated electromagnetic disturbance to a level where radios and telecommunication and other devices can properly function;
- electromagnetic immunity against electromagnetic disturbance so that they can properly function.

When selecting a connector, screen or shielding efficiency and low resistance to electric continuity between the cable and the connector should be considered.

The design of LEMO connectors with metal shell and earthing crown guarantee optimum shielding efficiency in all applications where electromagnetic compatibility (EMC) is critical.

The performance of a connector is measured through shielding efficiency, a value that represents the ratio between the electromagnetic field on the outside and the inside of the shell. Our measurements are carried out according to the IEC 60169-1-3 standard.



The performance of S and B series connectors is comparable to the results of measurements carried out on a pair of FGG + PHG.1B connectors.

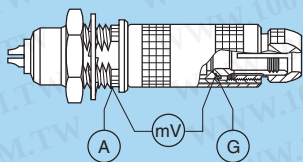
The performance of E and K series connectors is comparable to the results of measurements carried out on a pair of FGG + PHG.1K connectors.

Shell electrical continuity: (measured according to IEC 60512-2 test 2f)

Test current: 1A
A = Ammeter
mV = Millivoltmeter
G = Generator

勝特力材料 886-3-5753170
勝特力电子(上海) 86-21-34970699
勝特力电子(深圳) 86-755-83298787
[Http://www.100y.com.tw](http://www.100y.com.tw)

Standard series

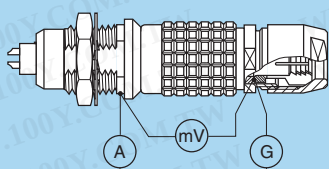


- R₁** Values with earthing crown and latch sleeve or inner-sleeve nickel-plated.
- R₂** Values with gold-plated earthing crown and nickel-plated latch sleeve or inner sleeve.

Series	R ₁ (mΩ)	R ₂ (mΩ)
00	3.5	2.8
0S	2.8	1.6
1D	2.5	1.1
1S	2.2	1.5
2C	—	—

Series	R ₁ (mΩ)	R ₂ (mΩ)
2S	1.8	1.2
3S	1.6	1.2
4S	1.4	1.0
5S	1.4	1.0
6S	1.0	0.5

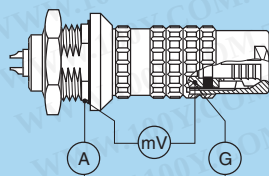
Keyed series



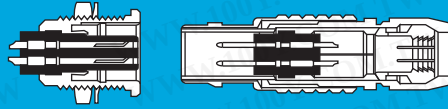
Series	R ₁ (mΩ)	R ₂ (mΩ)
00	3.5	2.8
0B	3.5	1.3
1B	2.5	1.1
2B	2.2	0.9

Series	R ₁ (mΩ)	R ₂ (mΩ)
2G	—	—
3B	2.2	0.7
4B	1.5	0.5
5B	1.5	0.3

Watertight series Keyed watertight series



Series	R ₁ (mΩ)	R ₂ (mΩ)
0E-0K-0L	2.8	1.6
1E-1K-1L	2.2	1.5
2E-2K-2L	1.8	1.2
3E-3K	1.6	1.2
4E-4K	1.4	1.0
5E-5K	1.4	1.0
6E	1.0	0.5



Insulator

Plastic material used by LEMO for manufacturing insulators is selected according to the electric and thermal properties required for the various connector types. Characteristics examined for the two connector types are:

- Dielectric strength;
- Comparative tracking index;
- Surface and volume resistivity;
- Continuous service temperature;
- Water absorption;
- Radiation resistance;
- Flammability rating
- Resistance to hydrocarbon.

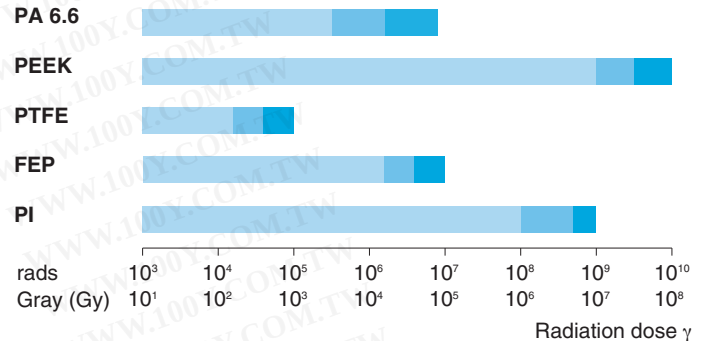
Mechanical and Electrical Properties

Mechanical characteristics of thermoplastics, such as PA 6.6, and PEEK, are improved by the addition of glass fibres. By adding glass fibres in the resin the performance of this material (mechanical strength and radiation resistance) is enhanced and water absorption rate is reduced. From an electric point of view, the addition of glass fibres improves dielectric strength.

Selection of the insulator

A number of thermoplastics have common characteristics, some of them are identical with other insulating materials. In this case, the insulator material is selected according to the specific difference in features to provide all the required parameters for the given type.

Radiation resistance



- Damage**
- Minimum to slight (almost available usable)
 - Slight to medium (often satisfactory)
 - Medium to serious (not usable)

Note: technical data in this chapter provide general information on plastics used by LEMO as electrical insulators. LEMO reserves the right to propose new materials with better technical characteristics, and to withdraw, without notice, any material mentioned in the present catalogue or any other publications edited by LEMO S.A. and/or its subsidiaries. LEMO SA and its subsidiaries use only plastic granules, powder or bars supplied by specialized companies, and thus cannot in any case take responsibility with regard to this material.

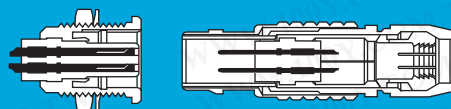
Technical characteristics

Type	Standard	Units	PA6.6	PEEK	PTFE	FEP	PI
Dielectric strength	ASTM D 149 / IEC 60243	kV/mm	15-17	19-25	17.2-24	20	22
Volume resistivity at 50% RH and 23°C	ASTM D 257 / IEC 60093	$\Omega \cdot \text{cm}$	5.8×10^{15}	10^{16}	10^{18}	$> 10^{16}$	$> 10^{16}$
Surface resistivity	ASTM D 257 / IEC 60093	Ω	10^{12}	10^{15}	10^{17}	$> 10^{16}$	$> 10^{15}$
Thermal conductivity	ASTM C 177	W/K · m	0.21	0.25	0.23	0.24	0.35
Comparative tracking index	IEC 60112	V	CTI 600	CTI 150	CTI 500	–	–
Dielectric constant (10 ⁶ Hz)	ASTM D 150 / IEC 60250	–	4	3.2-3.5	2-2.1	2.1	3.6
Dissipation factor (10 ⁶ Hz)	ASTM D 150 / IEC 60250	–	–	< 0.005	< 0.0003	< 0.001	< 0.0034
Maximum continuous service temperature	UL 746	°C	120	250	260	200	350
Maximum short-time service temperature	–	°C	150	300	300	260	480
Minimum continuous service temperature	–	°C	–	-55	-200	-200	–
Water absorption in 24h at 23°C	ASTM D 570 / ISO R624	%	< 0.7	< 0.3	< 0.01	< 0.01	0.24
Radiation resistance	–	Gy	5×10^3	10^7	2×10^2	2×10^4	10^6
Flammability rating	ASTM D 635 / UL 94	–	–	V-0/3.2	V-0	V-0	–

Note: values of insulation resistance between contacts are given on page 177.

Designation		Symbol	Standard	Unipole			Multipole							
chemical	commercial			00	S	E	00	S	E	B	K	2C	2G	1D
Polyamide (glass fitted)	Nylatron®	PA 6.6	–											
Polyether Etheretone	Peek®	PEEK	–											
Polytetrafluorethylene	–	PTFE	ASTM D 1457-83											
Tetrafluorethylene	–	FEP	ASTM D 2116-81											
Polyimide	VespeI®	PI	–											

- First choice alternative
- Special order alternative



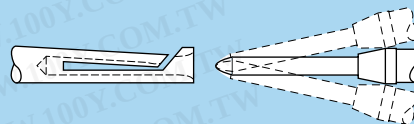
勝特力材料 886-3-5753170
 勝特力电子(上海) 86-21-34970699
 勝特力电子(深圳) 86-755-83298787
[Http://www.100y.com.tw](http://www.100y.com.tw)

Electrical contact

Technical description

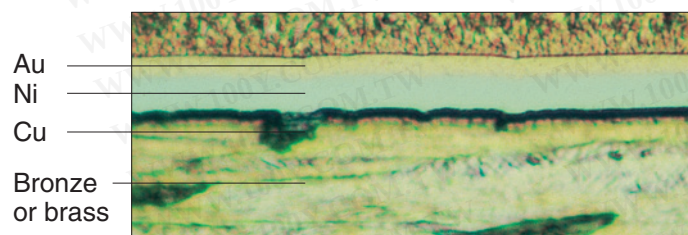
The secure reliable electromechanical connection achieved with LEMO female cylindrical contacts is mainly due to two important design features :

1. *Prod proof entry* on the mating side which ensures perfect concentric mating even with carelessly handled connectors.
2. *The pressure spring*, with good elasticity, maintains a constant even force on the male contact when mated. The leading edge of the pressure spring preserves the surface treatment (gold-plated) and prevents undue wear.



Contact material and treatment

LEMO female contacts are made of bronze beryllium (QQ-C-530) or bronze (UNS C 54400). These materials are chosen because of their high modulus of elasticity, their excellent electrical conductivity and a high mechanical strength.



LEMO male solder and print contacts are made of brass (UNS C 38500). Male crimp contacts are made of brass (UNS C 34500) or annealed brass (UNS C 38500) with optimum hardness (HV) for crimping onto the wire.

Type	Material (standard)	Surf. treatment (µm)		
		Cu	Ni	Au ¹⁾
Male crimp	Brass (UNS C 34500)	0.5	3	1.0
Male print	Brass (UNS C 38500)			
Female crimp	Bronze (UNS C 54400)	0.5	3	1.5
Female print	Cu-Be (FS QQ-C-530)			
Clips	Cu-Be (FS QQ-C-530)	—	—	—
	Stainless steel	—	—	—
Wire ²⁾	Brass	—	3 ³⁾	—

Notes: the standard surface treatment are as follows:

— nickel: FS QQ-N-290A or MIL-C-26074C

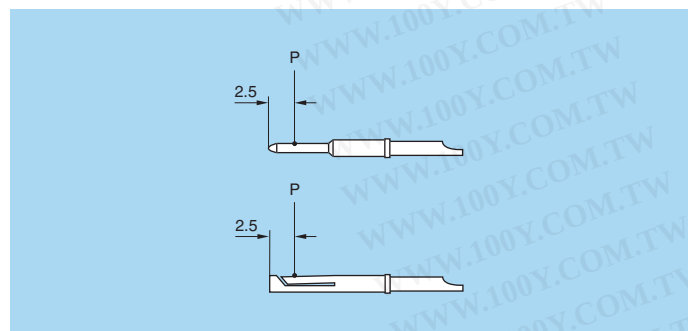
— gold: ISO 4523.

1) minimum value

2) for elbow print contacts

3) treatment completed by 6 µm Sn (lead free) tin-plating

Thickness comparison between the outside and the inside of female contacts



Note: P = inspection point

Contact ø A (mm)	Gold thickness		
	male (µm)	female	
		outside (µm)	inside (%)
0.5	1.0	1.5	65
0.7	1.0	1.5	70
0.9	1.0	1.5	75
1.3	1.0	1.5	75
1.6	1.0	1.5	75
2.0	1.0	1.5	75
3.0	1.0	1.5	75
4.0	1.0	1.5	75
5.0	1.0	1.5	75
6.0	1.0	1.5	75
8.0	1.0	1.5	75
12.0 ¹⁾	—	—	—

Notes: 1) contacts are silver plated

Contact resistance with relation to the number of mating cycles

(measured according to IEC 60512-2 test 2a)

Average values measured after the mating cycles and the salt spray test according to IEC 60512-6 test 11f.

A Ø (mm)	Contact resistance (mΩ)			A Ø (mm)	Contact resistance (mΩ)		
	1000 cycles	3000 cycles	5000 cycles		1000 cycles	3000 cycles	5000 cycles
0.5	7.5	8.3	8.7	3.0	2.0	2.2	3.1
0.7	5.6	5.7	6.1	4.0	1.6	2.0	2.8
0.9	4.1	4.2	4.8	5.0	1.4	—	—
1.3	2.8	2.9	3.6	6.0	1.2	—	—
1.6	2.6	2.7	3.5	8.0	0.8	—	—
2.0	2.9	3.1	3.3	12.0	0.7	—	—

Insulation resistance between the contacts and contact/shell

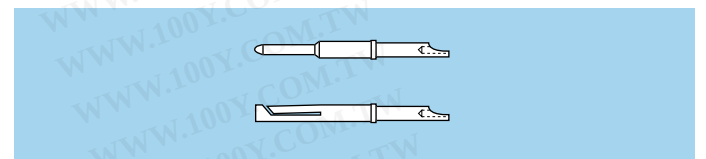
(measured according to IEC 60512-2 test 3a)

Insulating material	Multipole	Unipole
	PEEK	PTFE
new	$> 10^{12} \Omega$	$> 10^{12} \Omega$
after humidity test ¹⁾	$> 10^{10} \Omega$	$> 10^{10} \Omega$

Note: ¹⁾ 21 days at 95% RH according to IEC 60068-2-3.

Solder contacts

The conductor bucket of these contacts is machined at an angle to form a cup into which the solder can flow. See page 7 for the range of cable dimensions that can be soldered.



Crimp contacts

The square form crimp method is used (MIL-C-22520F, class I, type 2) photo 1 for unipole contacts.

For multipole contacts the standard four identer crimp method is used, MIL-C-22520F, class I, type 1), photo 2. The crimp method requires a controlled compression to obtain a symmetrical deformation of the conductor strand and of the contact material. The radial hole in the side of the contact makes it possible to check whether the conductor is correctly positioned within the contact. A good crimping is characterized by only slightly reduced conductor section and practically no gap.

For optimum crimping of bronze or brass contacts they are annealed to relieve internal stress and reduce material hardening during the crimping process.

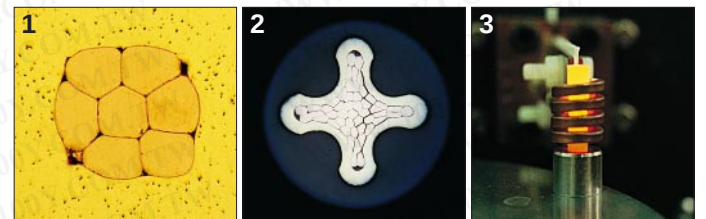
Only the crimping zone is annealed with the help of an induction heating machine designed by the LEMO Research and Development Department (see photo 3).

Advantages of crimping

- practical, quick contact fixing outside the insulator
- possible use at high temperature
- no risk of heating the insulator during the conductor-contact fixing
- high tensile strength

Crimp contacts are available in standard version (form 1) for mounting maximum size conductors.

For some dimensions, these crimp contacts can be produced with reduced crimp barrels (form 2) for mounting reduced size conductors.



Crimp contacts

The crimp contacts can be with two forms: a standard crimp barrel for large conductors (see fig. 1) or with a reduced crimp barrel for smaller conductors (see fig. 2).

Fig. 1

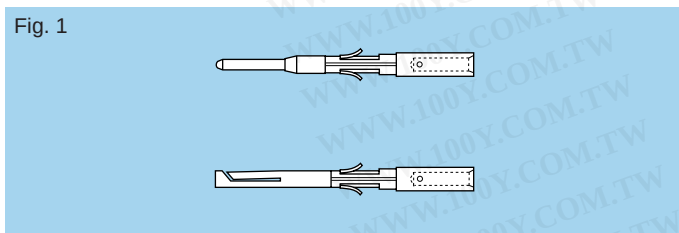
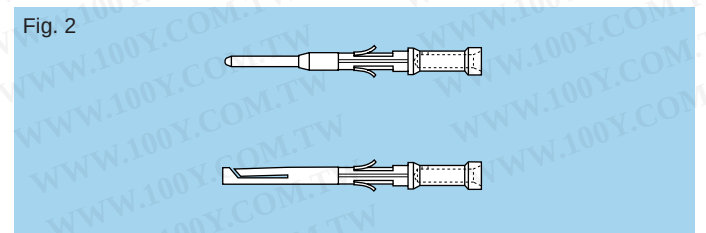


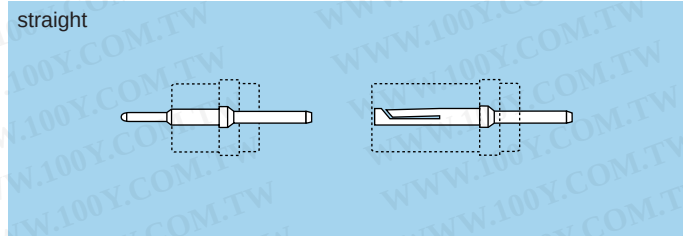
Fig. 2



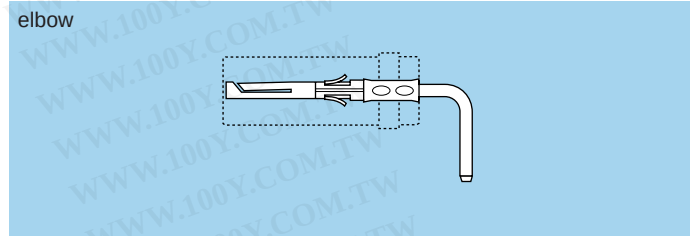
Print contacts

Print contacts are available in straight or elbow versions for certain connector types, mostly for straight and elbow socket models. Connection is made on flexible or rigid printed circuits by soldering.

Straight print contacts are gold-plated which guarantees optimum soldering, even after long-term storage. However



for wave soldering, we recommend removal the gold-plating from the contact end on the printed circuit side before soldering according to the assembly procedures. Print elbow contacts include a tinned lead free brass wire crimped into a crimp contact.



Test voltage

Test voltage (U_e) :
(measured according to the IEC 60512-2 test 4a standard)

It corresponds to 75% of the mean breakdown voltage.
Test voltage is applied at 500 V/s and the test duration is 1 minute.

This test has been carried out with a mated plug and socket, with power supply only on the plug end.

Operating voltage (U_s) :
It is proposed according to the following ratio : $U_s = \frac{U_e}{3}$

Caution:
For a number of applications, safety requirements for electrical appliances are more severe with regard to operating voltage.
In such cases operating voltage is defined according to creepage distance and air clearance) between live parts. Please consult us for the choice of a connector by indicating the safety standard to be met by the product.

Voltage values are given in the table on insulator types for each series.
They correspond with values measured at sea level. They are adapted to all applications up to an altitude of 2000 m.

In case a device is used at a higher altitude, air clearance between live parts has to be multiplied by the following coefficients.
It means also that test voltage has to be divided by this coefficient.

altitude (m)	coefficient
2000	1.00
3000	1.14
4000	1.29
5000	1.48

Rated current

(measured according to IEC 60512-3 test 5a)

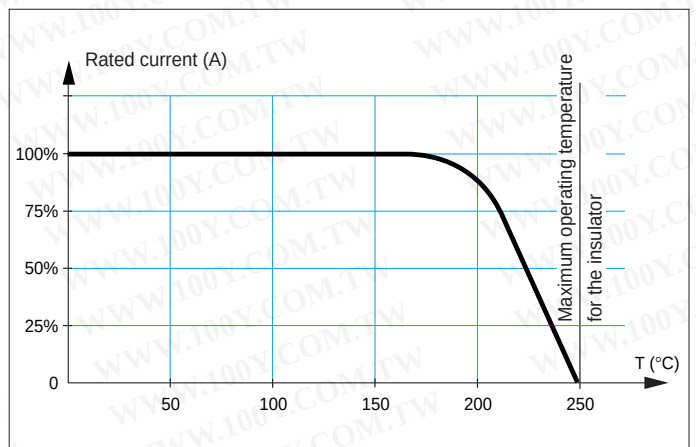
The specified rated current can be applied simultaneously to all the contacts.
It corresponds with an average temperature rise of 40°C of the connector.

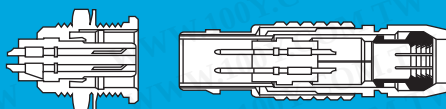
The current values are indicated in the table of insulator types in each series.
For use at higher temperatures acceptable rated current will be lower. It tends towards zero as the material is used at the maximum operating temperature accepted for the insulator.

In most case the current depend on the conductor dimension (see table on page 183) or on the printed circuit dimension.

Caution:
In general, connectors should not be unmated while live.

For connectors with PEEK insulator, maximum admissible current will follow the curve below depending on the operating temperature T.





Cable fixing

Cables are fixed into LEMO connectors with cable collet systems. These collets with latches have a design which is very similar to those used for tool machines. This solution guarantees excellent cable retention and ensures perfectly symmetrical deformation of the cable.

The 00 multipole series is also available with hexagonal crimping (MIL-C-22520F).

Material and treatment

Component	Material (standard)	Surface treatment (µm)				
		Nickel ¹⁾		Gold		
		Cu	Ni	Cu	Ni	Au
Center piece	Brass (UNS C 38500)	0.5	3	—	—	—
Collet	Brass (UNS C 38500)	0.5	3	—	—	—
Crimp ferrule	Copper (UNS C 18700)	0.5	3	0.5	3	0.5
Reducer	Brass (UNS C 38500)	0.5	3	—	—	—
Reducing cone	Brass (UNS C 38500)	0.5	3	—	—	—
Earthing cone	Brass (UNS C 38500)	0.5	3	—	—	—
Metal washer	Brass (UNS C 38500)	0.5	3	—	—	—
Gasket	Silicone MQ/MVQ	—				
	FPM (Viton®) ²⁾					

勝特力材料 886-3-5753170
 勝特力电子(上海) 86-21-34970699
 勝特力电子(深圳) 86-755-83298787
[Http://www.100y.com.tw](http://www.100y.com.tw)

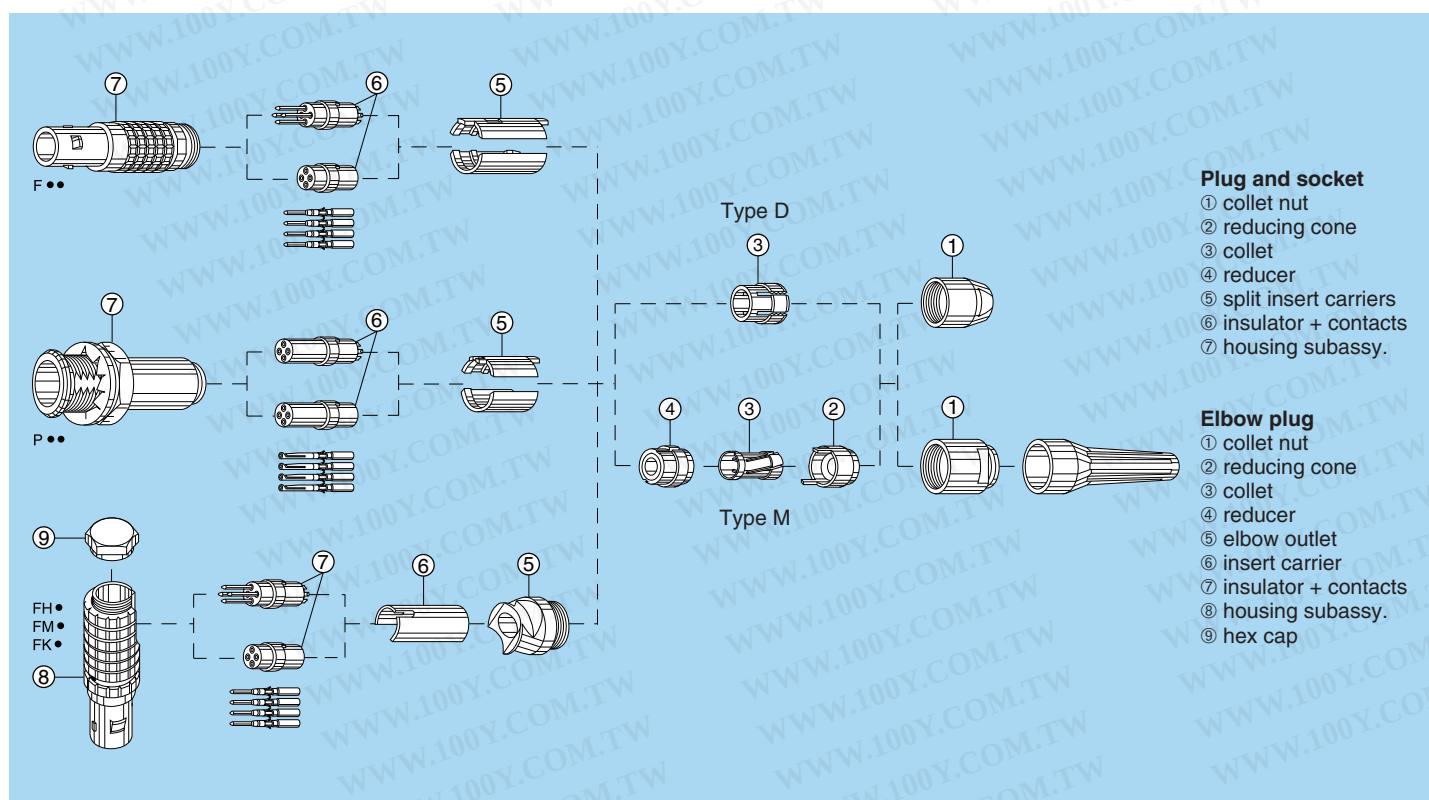
Notes:

- 1) standards for surface treatment are as follows:
 — nickel-plated: FS QQ-N-290A.
- 2) available upon special request.

Cable clamping system

B series (D and M cable clamping)

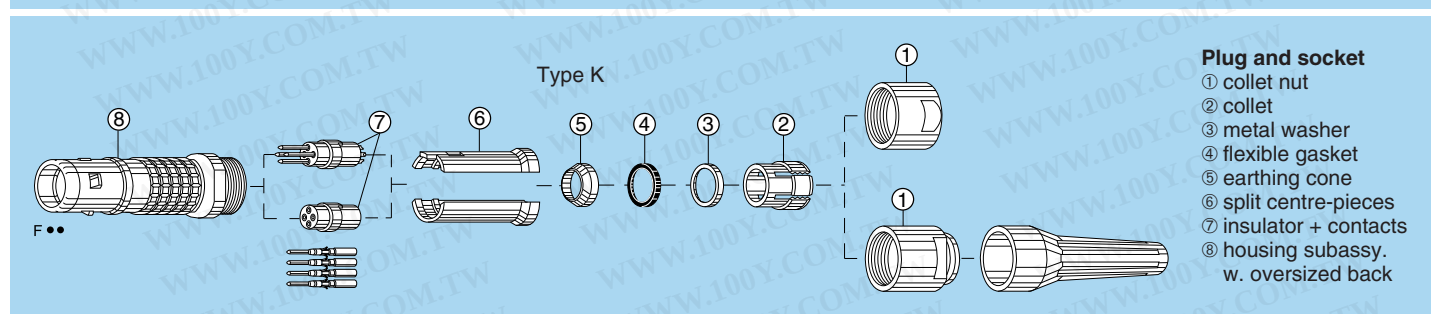
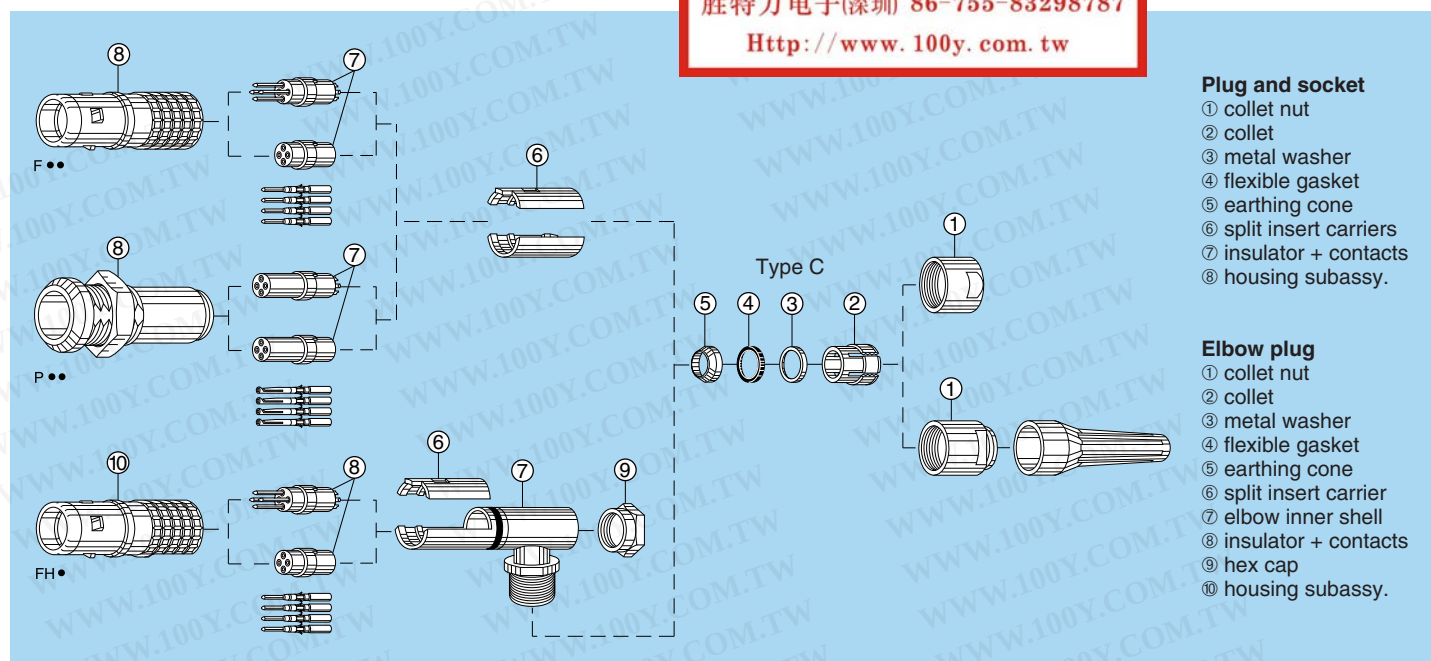
See assembly instructions under www.lemo.com.



K series (C and K cable clamping)

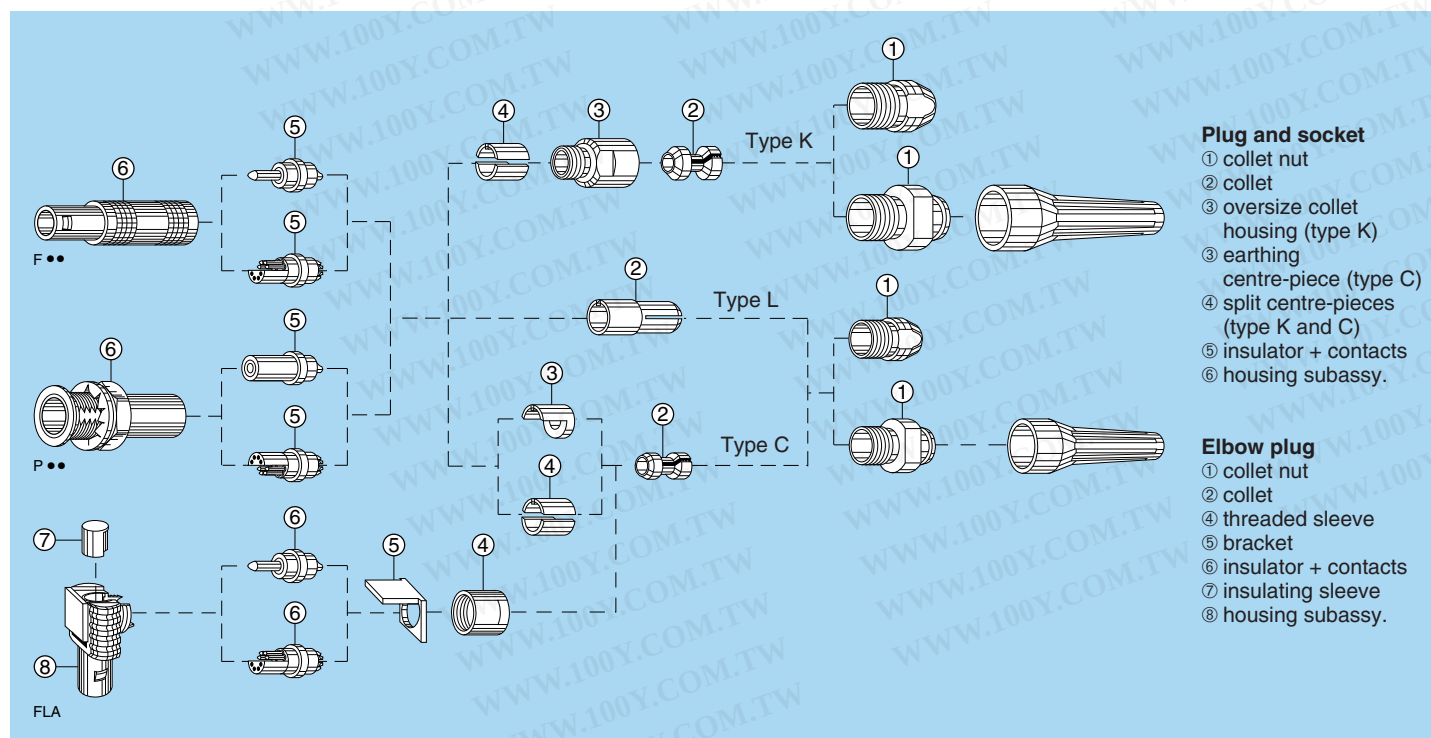
See assembly instructions under www.lemo.com.

勝特力材料 886-3-5753170
勝特力电子(上海) 86-21-34970699
勝特力电子(深圳) 86-755-83298787
[Http://www.100y.com.tw](http://www.100y.com.tw)



S series (C, L and K cable clamping)

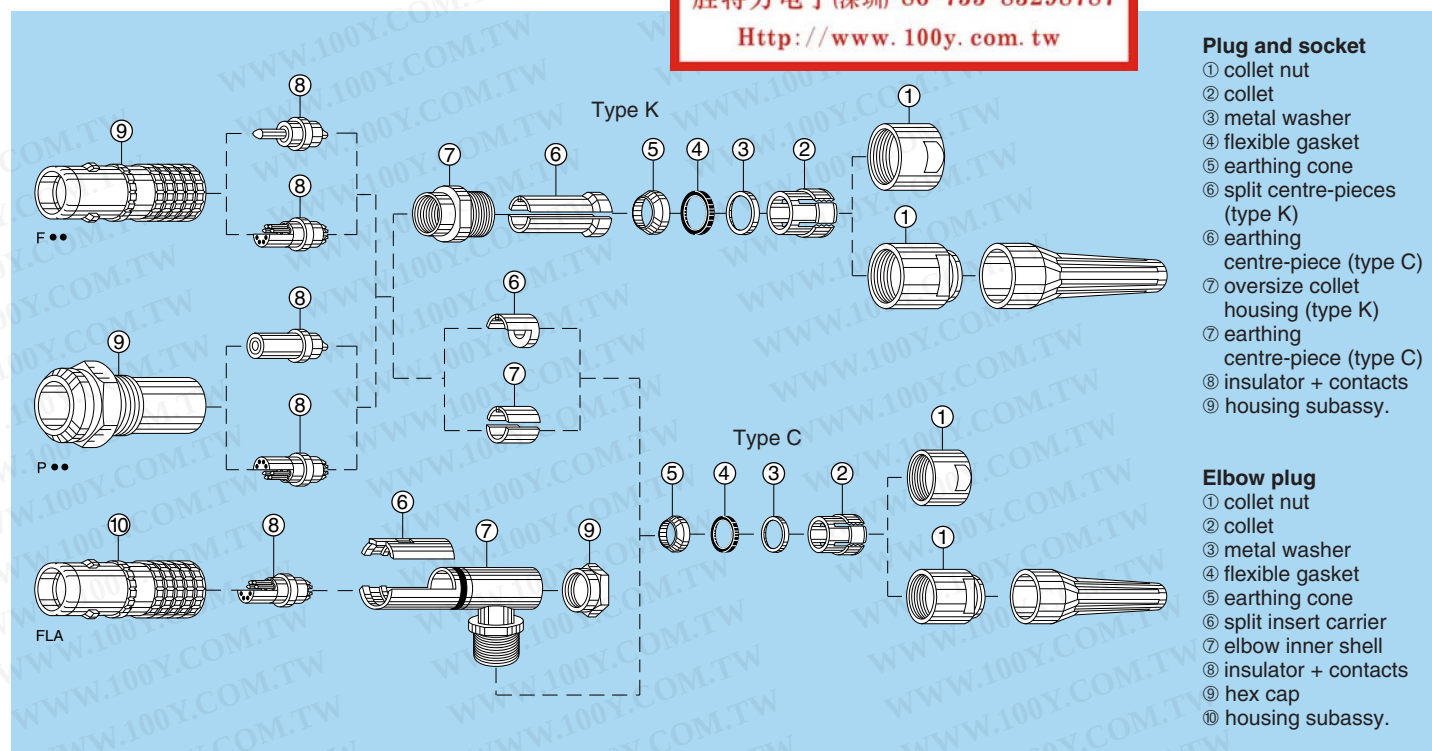
See assembly instructions under www.lemo.com.



E series (C and K cable clamping)

See assembly instructions under www.lemo.com.

勝特力材料 886-3-5753170
勝特力电子(上海) 86-21-34970699
勝特力电子(深圳) 86-755-83298787
[Http://www.100y.com.tw](http://www.100y.com.tw)



Plug and socket

- ① collet nut
- ② collet
- ③ metal washer
- ④ flexible gasket
- ⑤ earthing cone
- ⑥ split centre-pieces (type K)
- ⑦ earthing centre-piece (type C)
- ⑧ insulator + contacts
- ⑨ housing subassy.

Elbow plug

- ① collet nut
- ② collet
- ③ metal washer
- ④ flexible gasket
- ⑤ earthing cone
- ⑥ split insert carrier
- ⑦ elbow inner shell
- ⑧ insulator + contacts
- ⑨ hex cap
- ⑩ housing subassy.

Maximum metal collet nut tightening torque

Standard series

	Series									
	00	0S	1D	1S	2C	2S	3S	4S	5S	6S
Torque (Nm)	0.25	0.5	1.5	1.5	2.5	2.5	6	8	10	12

Keyed series

	Series							
	00	0B	1B	2B	2G	3B	4B	5B
Torque (Nm)	0.25	0.5	1.5	2.5	2.5	4	7	10

Watertight series

	Series									
	0E	0L	1E	1L	2E	2L	3E	4E	5E	6E
Torque (Nm)	0.7	0.7	0.8	0.8	2	2	3	5	8	12

Watertight keyed series

	Series					
	0K	1K	2K	3K	4K	5K
Torque (Nm)	0.7	0.8	2	3	5	8

1N = 0.102 kg

Maximum elbow plug hex cap tightening torque

Keyed series

	Series					
	00	0B	1B	2B	3B	4B
Torque (Nm)	0.3	0.6	1	1	1.5	3

Watertight series

	Series						
	0E	0L	1E	1L	2E	2L	3E
Torque (Nm)	0.8	0.8	1	1	1.2	1.2	1.5

Watertight keyed series

	Series					
	0K	1K	2K	3K	4K	5K
Torque (Nm)	0.8	1	1.2	1.5	3	5

1N = 0.102 kg

Maximum plastic collet nut tightening torque ¹⁾

	Series								
	00	0S	1S	2S	3S	1B	2B	3B	4B
Torque (Nm)	0.15	0.45	0.50	0.50	1.00	0.50	0.50	1.00	1.50

Note:

¹⁾ For applications subject to strong vibration, we recommend fixing the collet nut with epoxy resin. We recommend to tight to the maximum value. Optimal torque may depend on cable jacket design.

Technical tables

Table of American Wire Gauge

AWG	Construction		ø wire max		Wire section	
	Strand nb	AWG/strand	(mm)	(in)	(mm ²)	(sq in)
0	259	24	11.277	0.444	52.90	0.0820
1	817	30	9.702	0.382	41.40	0.0641
2	259	26	8.89	0.35	33.20	0.0514
4	133	25	6.9596	0.274	21.5925	0.0335
6	133	27	5.5118	0.217	13.5885	0.0211
8	168	30	4.4450	0.175	8.5127	0.0132
8	133	29	4.3942	0.173	8.6053	0.0133
10	105	30	3.3020	0.13	5.3204	0.0082
10	37	26	2.9210	0.115	4.7397	0.0073
10	1	10	2.6162	0.103	5.2614	0.0082
12	37	28	2.3114	0.091	2.9765	0.0046
12	19	25	2.3622	0.093	3.0847	0.0048
12 ¹⁾	7	20	2.5400	0.10	3.6321	0.0056
12	1	12	2.0828	0.082	3.3081	0.0051
14	41	30	2.0574	0.081	2.0775	0.0032
14	19	27	1.8542	0.073	1.9413	0.0030
14 ¹⁾	7	22	2.0828	0.082	2.2704	0.0035
14	1	14	1.6510	0.065	2.0820	0.0032
16 ¹⁾	65	34	1.5748	0.062	1.3072	0.0020
16	26	30	1.5748	0.062	1.3174	0.0020
16	19	29	1.4986	0.059	1.2293	0.0019
16 ¹⁾	7	24	1.5494	0.061	1.4330	0.0022
16	1	16	1.3208	0.052	1.3076	0.0020
18 ¹⁾	65	36	1.2700	0.05	0.8234	0.0013
18 ¹⁾	42	34	1.2700	0.05	0.8447	0.0013
18	19	30	1.3208	0.052	0.9627	0.0015
18	16	30	1.2954	0.051	0.8107	0.0013
18	7	26	1.2700	0.05	0.8967	0.0014
18	1	18	1.0414	0.041	0.8229	0.0013
20 ¹⁾	42	36	1.0160	0.04	0.5320	8.2x10 ⁻⁴
20	19	32	1.0414	0.041	0.6162	0.0010
20	10	30	1.0160	0.04	0.5067	7.9x10 ⁻⁴
20	7	28	0.9906	0.039	0.5631	8.7x10 ⁻⁴
20	1	20	0.8382	0.033	0.5189	8.0x10 ⁻⁴
22	19	34	0.8382	0.033	0.3821	5.9x10 ⁻⁴
22	7	30	0.7874	0.031	0.3547	5.5x10 ⁻⁴
22	1	22	0.6604	0.026	0.3243	5.0x10 ⁻⁴
24 ¹⁾	42	40	0.6604	0.026	0.2045	3.2x10 ⁻⁴
24	19	36	0.6858	0.027	0.2407	3.7x10 ⁻⁴
24	7	32	0.6350	0.025	0.2270	3.5x10 ⁻⁴
24	1	24	0.5588	0.022	0.2047	3.2x10 ⁻⁴
26	19	38	0.5588	0.022	0.1540	2.4x10 ⁻⁴
26	7	34	0.5080	0.02	0.1408	2.2x10 ⁻⁴
26	1	26	0.4318	0.017	0.1281	2.0x10 ⁻⁴
28 ¹⁾	19	40	0.4318	0.017	0.0925	1.4x10 ⁻⁴
28	7	36	0.4064	0.016	0.0887	1.4x10 ⁻⁴
28	1	28	0.3302	0.013	0.0804	1.2x10 ⁻⁴
30	7	38	0.3302	0.013	0.0568	8.8x10 ⁻⁵
30	1	30	0.2794	0.011	0.0507	7.9x10 ⁻⁵
32	7	40	0.2794	0.011	0.0341	5.3x10 ⁻⁵
32	1	32	0.2286	0.009	0.0324	5.0x10 ⁻⁵
34	1	34	0.1693	0.007	0.0201	3.1x10 ⁻⁵
36	1	36	0.127	0.005	0.0127	2.0x10 ⁻⁵
38	1	38	0.1016	0.004	0.0081	1.3x10 ⁻⁵
40	1	40	0.078	0.003	0.0049	7.5x10 ⁻⁶

Table of wire gauges according to IEC-60228 standard

Conductor no x Ø (mm)	Max Ø (mm)	Max Ø (in)	Section (mm ²)	Section (sq in)
196x0.40	7.50	0.295	25.00	0.0387
7x2.14	6.10	0.240	25.00	0.0387
125x0.40	6.00	0.236	16.00	0.0248
7x1.72	4.90	0.192	16.00	0.0248
1x4.50	4.50	0.177	16.00	0.0248
80x0.40	4.70	0.155	10.00	0.0155
7x1.38	3.95	0.155	10.00	0.0155
1x3.60	3.60	0.141	10.00	0.0155
84x0.30	3.70	0.145	6.00	0.0093
7x1.50	3.15	0.124	6.00	0.0093
1x2.76	2.76	0.108	6.00	0.0093
56x0.30	2.80	0.110	4.00	0.0062
7x0.86	2.58	0.098	4.00	0.0062
1x2.25	2.25	0.082	4.00	0.0062
50x0.25	2.15	0.084	2.50	0.0038
7x0.68	2.04	0.080	2.50	0.0038
1x1.78	1.78	0.070	2.50	0.0038
30x0.25	1.60	0.062	1.50	0.0023
7x0.52	1.56	0.061	1.50	0.0023
1x1.4	1.40	0.055	1.50	0.0023
32x0.20	1.35	0.053	1.00	0.0015
7x0.43	1.29	0.050	1.00	0.0015
1x1.15	1.15	0.045	1.00	0.0015
42x0.15	1.20	0.047	0.75	0.0011
28x0.20	1.15	0.045	0.75	0.0011
1x1.0	1.00	0.039	0.75	0.0011
28x0.15	0.95	0.037	0.50	7.7x10 ⁻⁴
16x0.20	0.90	0.035	0.50	7.7x10 ⁻⁴
1x0.80	0.80	0.031	0.50	7.7x10 ⁻⁴
7x0.25	0.75	0.029	0.34	5.2x10 ⁻⁴
1x0.60	0.60	0.023	0.28	4.3x10 ⁻⁴
14x0.15	0.75	0.029	0.25	3.8x10 ⁻⁴
7x0.20	0.65	0.023	0.22	3.4x10 ⁻⁴
18x0.10	0.50	0.019	0.14	2.1x10 ⁻⁴
14x0.10	0.40	0.015	0.11	1.7x10 ⁻⁴
21x0.07	0.40	0.015	0.09	1.3x10 ⁻⁴
14x0.10	0.40	0.015	0.09	1.3x10 ⁻⁴

Note: 1) not included in the standard

Maximum current rating for conductor

Maximum current on insulated conductors up to an ambient temperature of 30° C (from VDE 0100, parts 430 and 532 as well as other VDE regulations).

Nominal section mm ²	Group 2 Intens. max. A	Group 3 Intens. max. A
0.08	1.0	1.5
0.14	2.0	3.0
0.25	4.0	5.0
0.34	6.0	8.0
0.50	9.0	12.0
0.75	12.0	15.0
1.00	15.0	19.0
1.50	18.0	24.0
2.50	26.0	32.0

勝特力材料 886-3-5753170
 勝特力电子(上海) 86-21-34970699
 勝特力电子(深圳) 86-755-83298787
[Http://www.100y.com.tw](http://www.100y.com.tw)

Group 2 Multi-conductor, e. g. solid cable under sheath, shielded cable, lead-sheath cables, ...
 Group 3 Single conductor and single conductor cable laid on open air in a way to leave at least a space between them equal to their diameter

Some formulae

Resistance R of a conductor: $R = \rho \cdot \frac{l}{A} [\Omega]$

Where: ρ = conductor resistivity
 l = conductor length
 A = conductor cross-section

Impedance of coaxial line: $Z = \frac{138}{\sqrt{\epsilon_r}} \cdot \log \frac{D}{d} [\Omega]$

ϵ_r = dielectric constant
 D = dielectric outer diameter
 d = center conductor outer diameter

Signal attenuation: Attenuation = $20 \cdot \log \frac{U_1}{U_2} [dB]$

U_1 = input signal voltage
 U_2 = output signal voltage

Conversion of some units:

millimeters into inches:

1 mm = 0.0394 in

inches into millimeters:

1 in = 25.4 mm

centimeters into feet:

1 cm = 0.0328 ft

feet (12 in) into centimeters:

1 ft = 30.48 cm

square centimeters into square inches:

1 cm² = 0.155 sq in

square inches into square centimeters:

1 sq in = 6.4516 cm²

bar into pounds per square inch:

1 bar = 14.51 psi

bar into Pascal:

1 bar = 10⁵ Pa

°C into °F:

°F = °C • 1.8 + 32

newtonmeter (Nm) into inch pound (in•lb)

1 Nm = 8.85 in•lb

mbar•l•s⁻¹ into Torr•l•s⁻¹

1 mbar•l•s⁻¹ = 1.33 Torr•l•s⁻¹

Product safety notice

PLEASE READ AND FOLLOW ALL INSTRUCTIONS CAREFULLY AND CONSULT ALL RELEVANT NATIONAL AND INTERNATIONAL SAFETY REGULATIONS FOR YOUR APPLICATION. IMPROPER HANDLING, CABLE ASSEMBLY, OR WRONG USE OF CONNECTORS CAN RESULT IN HAZARDOUS SITUATIONS.

1. SHOCK AND FIRE HAZARD

Incorrect wiring, the use of damaged components, presence of foreign objects (such as metal debris), and / or residue (such as cleaning fluids), can result in short circuits, overheating, and / or risk of electric shock. Mated components should never be disconnected while live as this may result in an exposed electric arc and local overheating, resulting in possible damage to components.

2. HANDLING

Connectors and their components should be visually inspected for damage prior to installation and assembly. Suspect components should be rejected or returned to the factory for verification. Connector assembly and installation should only be carried out by properly trained personnel. Proper tools must be used during installation and / or assembly in order to obtain safe and reliable performance.

3. USE

Connectors with exposed contacts should never be live (or on the current supply side of a circuit). Under general conditions voltages above 30 VAC and 42 VDC are considered hazardous and proper measures should be taken to eliminate all risk of transmission of such voltages to any exposed metal part of the connector.

4. TEST AND OPERATING VOLTAGES

The maximum admissible operating voltage depends upon the national or international standards in force for the application in question. Air and creepage distances impact the operating voltage; reference values are indicated in the catalog however these may be influenced by PC board design and / or wiring harnesses. The test voltage indicated in the catalog is 75% of the mean breakdown voltage; the test is applied at 500 V/s and the test duration is 1 minute.

5. CE MARKING

CE Marking is applied to a complete product or device, and implies that the device complies with one or several European safety directives. CE Marking can not be applied to electromechanical components such as connectors.

6. PRODUCT IMPROVEMENTS

The LEMO Group reserves the right to modify and improve to our products or specifications without providing prior notification.

勝特力材料 886-3-5753170
勝特力电子(上海) 86-21-34970699
勝特力电子(深圳) 86-755-83298787
[Http://www.100y.com.tw](http://www.100y.com.tw)