Features

Plug-in mount, general purpose
2, 3 & 4 Pole relays
55.32 - 2 Pole 10 A
55.33 - 3 Pole 10 A
55.34 - 4 Pole 7 A

- Lockable test button and mechanical flag indicator as standard on 2 & 4 pole types
- AC coils & DC coils
- UL Listed (certain relay/socket combinations)
- Cadmium Free contacts (preferred version)
- Contact material options
- Rear flange mount option
- 94 series sockets, coil suppression and timer accessories

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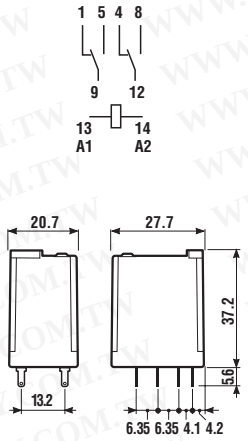
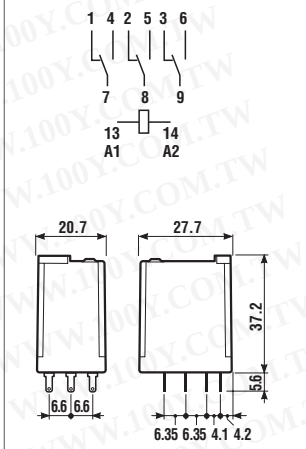
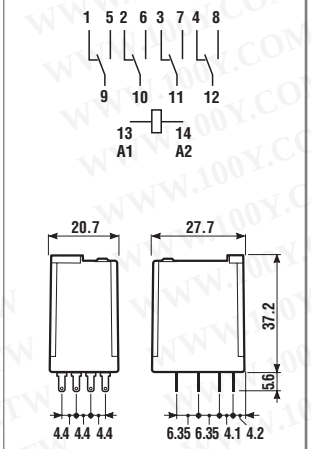
	55.32	55.33	55.34
			
	• 2 pole 10 A • Plug-in 94 series sockets	• 3 pole 10 A • Plug-in 94 series sockets	• 4 pole 7 A • Plug-in 94 series sockets
			
Contact specification			
Contact configuration	2 CO (DPDT)	3 CO (3PDT)	4 CO (4PDT)
Rated current/Maximum peak current A	10/20	10/20	7/15
Rated voltage/Maximum switching voltage V AC	250/400	250/400	250/250
Rated load AC1 VA	2,500	2,500	1,750
Rated load AC15 (230 V AC) VA	500	500	350
Single phase motor rating (230 V AC) kW	0.37	0.37	0.125
Breaking capacity DC1: 30/110/220 V A	10/0.25/0.12	10/0.25/0.12	7/0.25/0.12
Minimum switching load mW (V/mA)	300 (5/5)	300 (5/5)	300 (5/5)
Standard contact material	AgNi	AgNi	AgNi
Coil specification			
Nominal voltage (U_N) V AC (50/60 Hz)	6 - 12 - 24 - 48 - 60 - 110 - 120 - 230 - 240		
V DC	6 - 12 - 24 - 48 - 60 - 110 - 125 - 220		
Rated power AC/DC VA (50 Hz)/W	1.5/1	1.5/1	1.5/1
Operating range AC	$(0.8...1.1)U_N$	$(0.8...1.1)U_N$	$(0.8...1.1)U_N$
DC	$(0.8...1.1)U_N$	$(0.8...1.1)U_N$	$(0.8...1.1)U_N$
Holding voltage AC/DC	$0.8\ U_N/0.5\ U_N$	$0.8\ U_N/0.5\ U_N$	$0.8\ U_N/0.5\ U_N$
Must drop-out voltage AC/DC	$0.2\ U_N/0.1\ U_N$	$0.2\ U_N/0.1\ U_N$	$0.2\ U_N/0.1\ U_N$
Technical data			
Mechanical life AC/DC cycles	$20 \cdot 10^6/50 \cdot 10^6$	$20 \cdot 10^6/50 \cdot 10^6$	$20 \cdot 10^6/50 \cdot 10^6$
Electrical life at rated load AC1 cycles	$200 \cdot 10^3$	$200 \cdot 10^3$	$150 \cdot 10^3$
Operate/release time ms	9/3	9/3	9/3
Insulation between coil and contacts (1.2/50 µs) kV	3.6	3.6	3.6
Dielectric strength between open contacts V AC	1,000	1,000	1,000
Ambient temperature range °C	–40...+85	–40...+85	–40...+85
Environmental protection	RT I	RT I	RT I
Approvals (according to type)	CE B ABS SP D FI PG IRAM Lloyd's Register N RINA S cULus NF VDE		

Ordering information

Example: 55 series plug-in relay, 4 CO (4PDT), 12 V DC coil, lockable test button and mechanical indicator.

55	.	3	4	.	9	.	012	.	A: 0	B: 0	C: 4	D: 0

Series

Type
1 = PCB
3 = Plug-in

No. of poles
2 = 2 pole, 10 A
3 = 3 pole, 10 A
4 = 4 pole, 7 A

Coil version
8 = AC (50/60 Hz)
9 = DC

Coil voltage
see coil specifications

A: Contact material
0 = Standard AgNi
2 = AgCdO
5 = AgNi + Au (5 µm)

B: Contact circuit
0 = CO (nPDT)

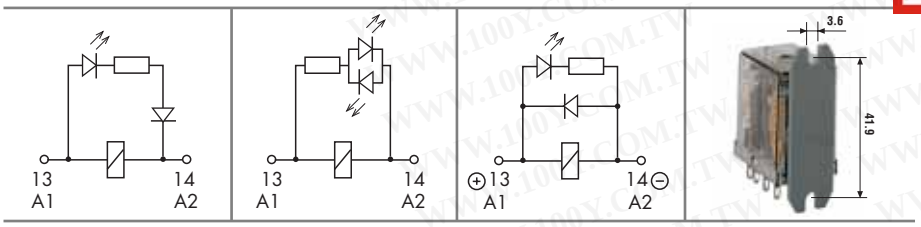
D: Special versions
0 = Standard
1 = Wash tight (RT III)
for 55.12, 55.13 and 55.14 only
6 = Rear flange mount

C: Options
0 = None
1 = Lockable test button
2 = Mechanical indicator
3 = LED (AC)
4 = Lockable test button+mechanical indicator
5 = Lockable test button + LED (AC)
54 = Lockable test button + LED (AC) + mechanical indicator
6 = Double LED (DC non-polarized)
7 = Lockable test button + double LED (DC non-polarized)
74 = Lockable test button + double LED (DC non-polarized) + mechanical indicator
8 = LED + diode (DC, polarity positive to pin A1/13)
9 = Lockable test button + LED + diode (DC, polarity positive to pin A1/13)
94 = Lockable test button + LED + diode (DC, polarity positive to pin A1/13) + mechanical indicator

Selecting features and options: only combinations in the same row are possible.
Preferred selections for best avaliability are shown in **bold.**

Type	Coil version	A	B	C	D
55.32/34	AC-DC	0 - 2 - 5	0	0	0 - 6
	AC	**0** - 2 - 5	**0**	2 - 3 - **4** - 5	**0** - 6
	AC	0 - 2 - 5	0	54	/
	DC	**0** - 2 - 5	**0**	2 - **4** - 6 - 7 - 8 - 9	**0** - 6
	DC	0 - 2 - 5	0	74 - 94	/
55.33	AC-DC	**0** - 2 - 5	**0**	**0**	**0** - 6
	AC	0 - 2 - 5	0	1 - 3 - 5	0 - 6
	DC	0 - 2 - 5	0	1 - 6 - 7 - 8 - 9	0 - 6
55.12/13/14	AC-DC	**0** - 2 - 5	**0**	**0**	**0** - 1

Descriptions: Options and Special versions



C: Option 3, 5, 54
LED (AC)

C: Option 6, 7, 74
Double LED
(DC non-polarized)

C: Option 8, 9, 94
LED + diode (DC, polarity positive to pin A1/13)

D: Special versions 6
Rear flange mount

Lockable test button and mechanical flag indicator (0040)

The dual-purpose Finder test button can be used in two ways:

Case 1) The plastic pip (located directly above the test button) remains intact. In this case, when the test button is pushed, the contacts operate. When the test button is released the contacts return to their former state.

Case 2) The plastic pip is broken-off (using an appropriate cutting tool). In this case, (in addition to the above function), when the test button is pushed and rotated, the contacts are latched in the operating state, and remain so until the test button is rotated back to its former position.

In both cases ensure that the test button actuation is swift and decisive.

Technical data

Insulation					
Insulation according to EN 61810-1 ed. 2	insulation rated voltage	V	400 (2-3 pole)	250 (4 pole)	
	rated impulse withstand voltage	kV	3.6 (2-3 pole)	2.5 (4 pole)	
	pollution degree		2		
	overvoltage category		III		
Insulation between coil and contacts (1.2/50 µs)		kV	3.6		
Dielectric strength between open contacts		V AC	1,000		
Dielectric strength between adjacent contact		V AC	2,000 (2 CO)	2,000 (3 CO)	1,550 (4 CO)
Conducted disturbance immunity					
Burst (5...50)ns, 5 kHz, on A1 - A2			EN 61000-4-4	level 4 (4 kV)	
Surge (1.2/50 µs) on A1 - A2 (differential mode)			EN 61000-4-5	level 4 (4 kV)	
Other data					
Bounce time: NO/NC		ms	1/4		
Vibration resistance (5...55)Hz, max. ± 1 mm: NO/NC		g/g	15/15		
Shock resistance		g	16		
Power lost to the environment	without contact current	W	1 (2 pole)	1 (3 pole)	1 (4 pole)
	with rated current	W	3 (2 pole)	4 (3 pole)	3 (4 pole)
Recommended distance between relays mounted on PCB		mm	≥ 5		

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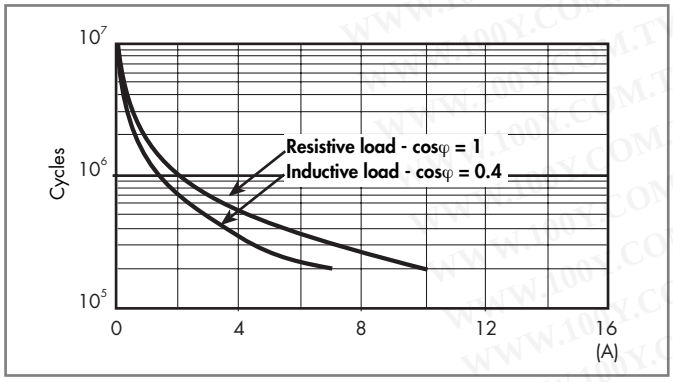
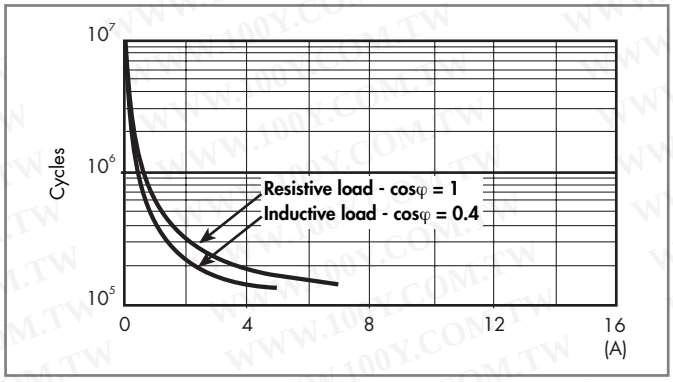
Contact specification

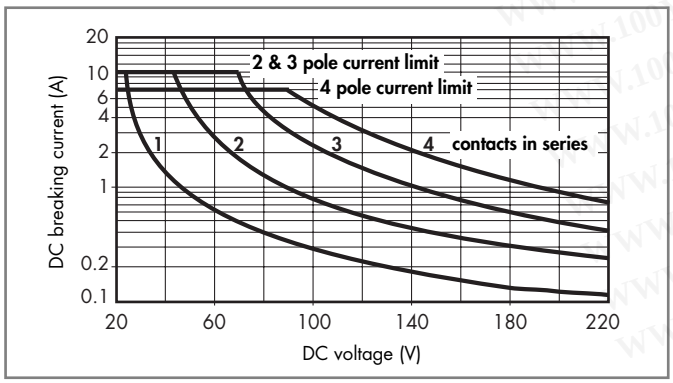
F 55 - Electrical life (AC) v contact current
2 and 3 pole relays



F 55 - Electrical life (AC) v contact current
4 pole relay



H 55 - Maximum DC1 breaking capacity



- When switching a resistive load (DC1) having voltage and current values under the curve, an electrical life of ≥ 100·10³ can be expected.
- In the case of DC13 loads, the connection of a diode in parallel with the load will permit a similar electrical life as for a DC1 load. Note: the release time for the load will be increased.

Coil specifications

DC coil data

Nominal voltage U_N	Coil code	Operating range U_{min}	Operating range U_{max}	Resistance R	Rated coil consumption I at U_N
V		V	V	Ω	mA
6	**9**.006	4.8	6.6	40	150
12	**9**.012	9.6	13.2	140	86
24	**9**.024	19.2	26.4	600	40
48	**9**.048	38.4	52.8	2,400	20
60	**9**.060	48	66	4,000	15
110	**9**.110	88	121	12,500	8.8
125	**9**.125	100	137.5	17,300	7.2
220	**9**.220	176	242	54,000	4

AC coil data

Nominal voltage U_N	Coil code	Operating range U_{min}	Operating range U_{max}	Resistance R	Rated coil consumption I at U_N (50Hz)
V		V	V	Ω	mA
6	**8**.006	4.8	6.6	12	200
12	**8**.012	9.6	13.2	50	97
24	**8**.024	19.2	26.4	190	53
48	**8**.048	38.4	52.8	770	25
60	**8**.060	48	66	1,200	21
110	**8**.110	88	121	4,000	12.5
120	**8**.120	96	132	4,700	12
230	**8**.230	184	253	17,000	6
240	**8**.240	192	264	19,100	5.3

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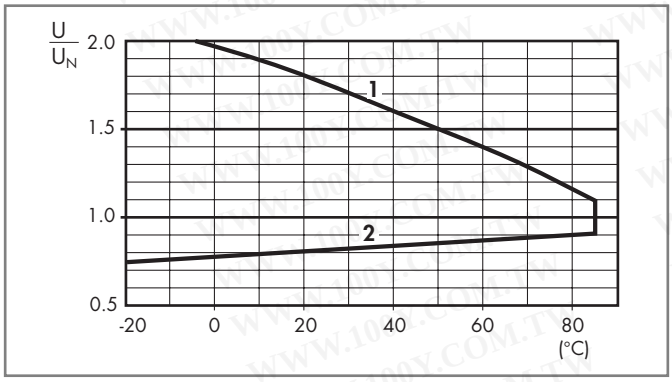
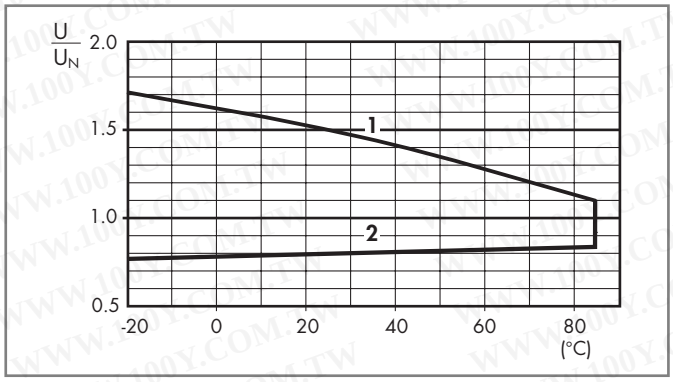
R 55 - DC coil operating range v ambient temperature



1 - Max. permitted coil voltage.
2 - Min. pick-up voltage with coil at ambient temperature.

R 55 - AC coil operating range v ambient temperature



1 - Max. permitted coil voltage.
2 - Min. pick-up voltage with coil at ambient temperature.

Accessories


055.05


055.05 with relays

Adaptor with top mount flange for 55.32, 55.33, 55.34	055.05