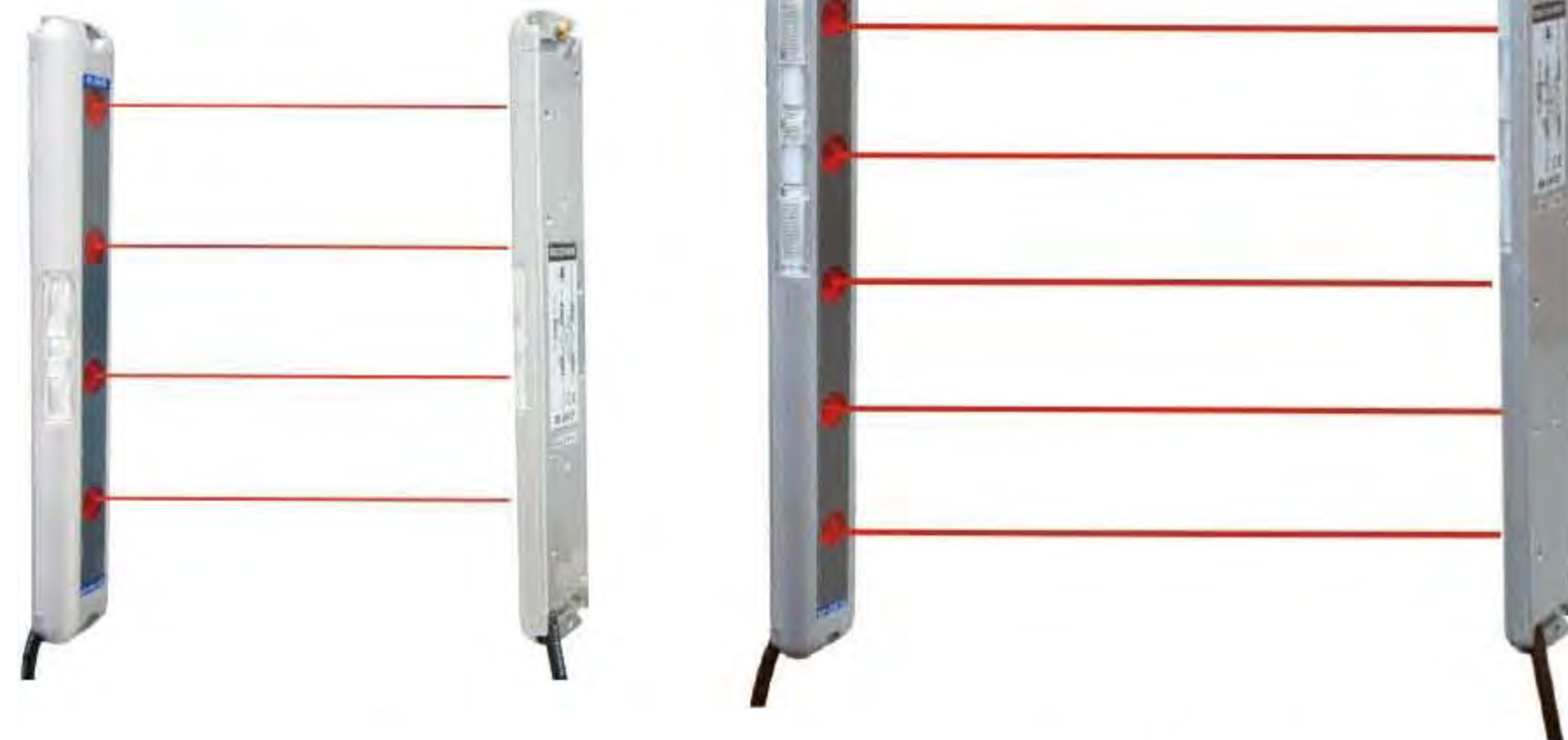
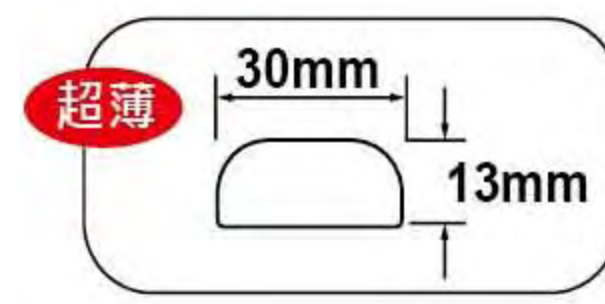


Characteristic / 特點：

- Ultra slim body, 13mm thickness only.
/ 13mm超薄型，寬度僅有30mm。
- Min. Detectable object Ø60mm.
/ 最小檢測物Ø60mm。
- Green and red LED blink in sequence from top to bottom under normal emission. All LED light up under the emitting circuit failure.
/ 未感應時，綠色與紅色LED依序閃爍，當有物體遮斷時，LED則全部一起亮。



OAP

光電 / 光柵 / 超音波感測器

R5JM
R3JK
LK
LRS
PK3
PKG3
PK5
PM6

PTQ18
RMF
MMF

SU07
SU
SU18
SU30

SPR
RX

OAP
ASP

RU18

Model / 型號	NPN D.on	OAP-4004-NK	OAP-4004S-NK	OAP-4008-NK	OAP-4008S-NK
	NPN L.on	OAP-4004-N2K	OAP-4004S-N2K	OAP-4008-N2K	OAP-4008S-N2K
	PNP D.on	OAP-4004-PK	OAP-4004S-PK	OAP-4008-PK	OAP-4008S-PK
	PNP L.on	OAP-4004-P2K	OAP-4004S-P2K	OAP-4008-P2K	OAP-4008S-P2K
No.of Beams / 光軸數	4		8		
Sensing Height / 檢測高度	120 mm		280 mm		
Beam pitch / 光軸間距	40 mm				
Sensing type / 檢出方式	Through beam / 對照式				
Resolution / 分辨率	60 mm opaque object 不透明物體				
Sensing distance / 檢出距離	0.1 M ~ 5 M	0.1 M ~ 2 M		0.2 M ~ 5 M	0.2 M ~ 2 M
Emitting light / 發光源	Infrared LED : 850 nm				
Indicating LED / LED指示燈	5 LEDs each on emitter and receiver. / 在發射端與接收端各有5個LED燈		7LEDs each on emitter and receiver. / 在發射端與接收端各有7個LED燈		
	LEDs blink from top to bottom under the normal emission. All LEDs light up under the emitting circuit failure and will become blinking until the normal emission. / 在正常通電情況下，LED燈由上而下的閃爍。在發射端光軸被阻隔時，所有LED燈會全亮。如果恢復正常，即發射端光軸不被阻隔，LED恢復由上往下的閃爍				
Running type / 運轉方式	More than a beam is covered ON (Dark On) 任意一個光束被遮斷即輸出				
Operating voltage / 工作電壓	DC12 ~ 24 V ± 10% (ripple P-P : 10% Max.)				
Current consumption / 消耗電流	Transmitter : 30 mA Max.		Transmitter : 60 mA Max.		
	Receiver : 15 mA Max.		Receiver : 30 mA Max.		
Load current / 負載電流	100 mA 最大 at DC 24V				
Protection circuit / 保護電路	Reversed Supply circuit protection, Short circuit protection output. / 電源反接保護及輸出短路保護				
Response time / 反應時間	Off to On : 15 ms Max.				
	On to Off : 20 ms Max.				
Insulation resistance / 隔離阻抗	20MΩ min. (DC500V)				
Voltage withstandability / 絕緣耐壓	AC1000V 60Hz for 60 Sec.				
Operating temperature / 工作溫度	- 10 °C ~ + 45°C (No freezing allowed 不可結霜,結冰)				
Ambient humidity / 工作溼度	35% ~ 85% RH 相對溼度				
Storage temperature / 儲存時溫度	- 10 °C ~ + 45°C (No freezing allowed 不可結霜,結冰)				
Storage humidity / 儲存時溼度	35% ~ 95% RH 相對溼度				
Protection degree / 防水等級	IP62				
Material / 外觀材質	ABS				
Wiring method / 出線方式	Transmitter : M12 pigtailed type(5P) / M12 出線式接頭型				
	Receiver : M12 pigtailed type(5P) / M12 出線式接頭型				
Option / 選購配件	OAP-M008 Mounting Bracket / OAP-M008固定架		OAP-M016 Mounting Bracket / OAP-M016固定架		
	Connectors / 線材 : M125R-PUR-2M / M125R-PUR-5M				
Weight / 重量	200g		253g		

Dimensions / 尺寸圖 (mm)

OAP

光電 / 光柵 / 超音波感測器

R5JM
R3JK
LK
LRS
PK3
PKG3
PK5
PM6

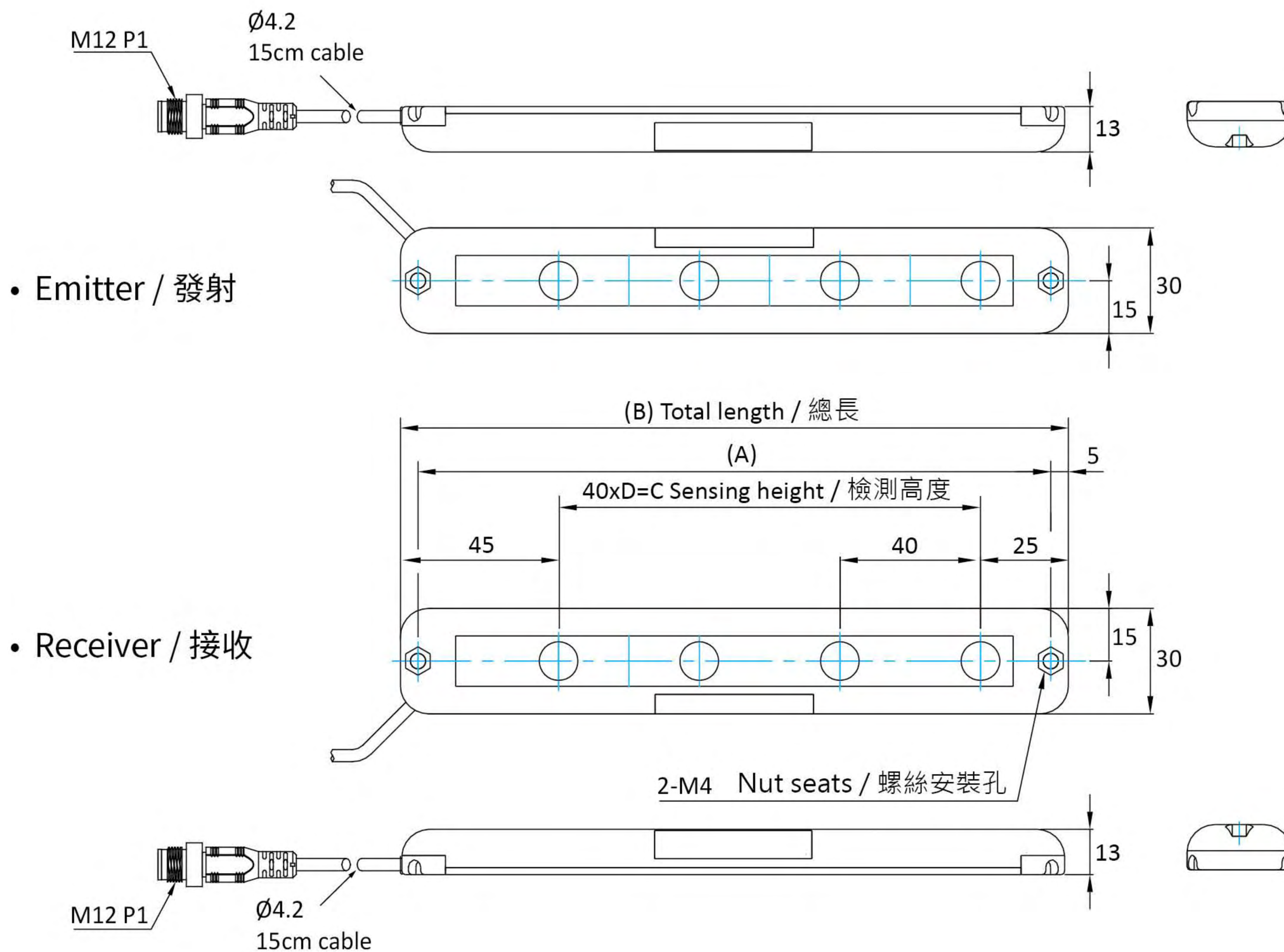
PTQ18
RMF
MMF

SU07
SU
SU18
SU30

SPR
RX

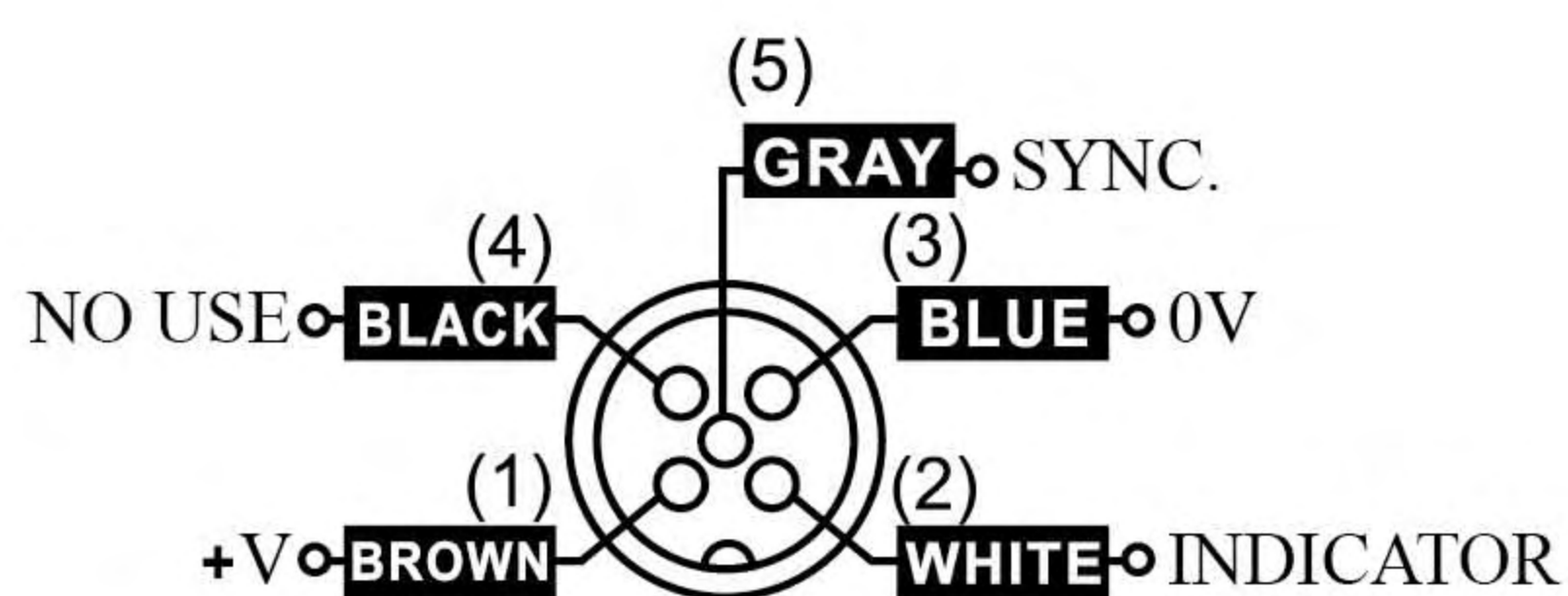
OAP
ASP

RU18

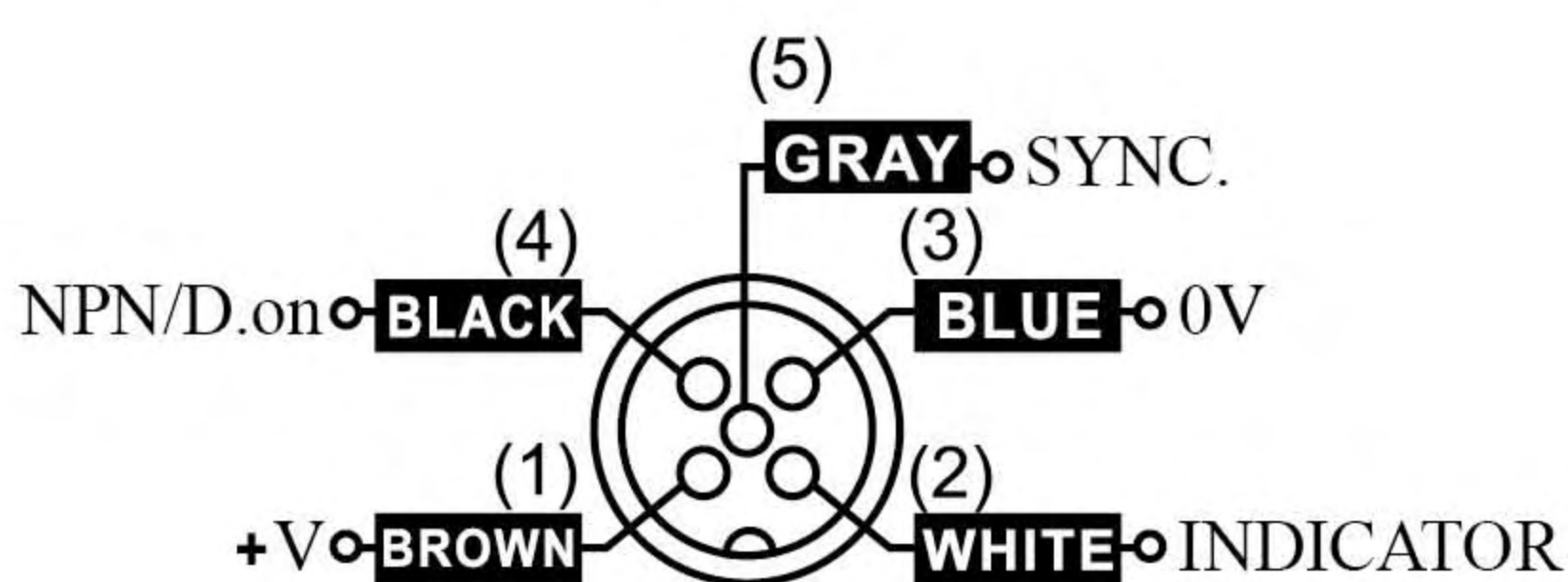


Wiring diagrams / 接線圖

• Emitter / 發射



• Receiver / 接收



Attention / 注意事項

⚠ Warning1 / 警告1

This product is not permitted to use with the machines which are not stopped electronically by electronic control. / 不可使用於無立即停止電子控制式的機器。

⚠ Warning2 / 警告2

Be sure to set some amount of safe distance between the sensor and dangerous point. / 在感應器及危險區域間，必須保持安全距離。

- Safe distance (D) formula. Min distance is 150mm. / 安全距離(D)公式。最短距離150mm。

$$D=2000 \times T+\alpha \quad (D \leq 500\text{mm})$$

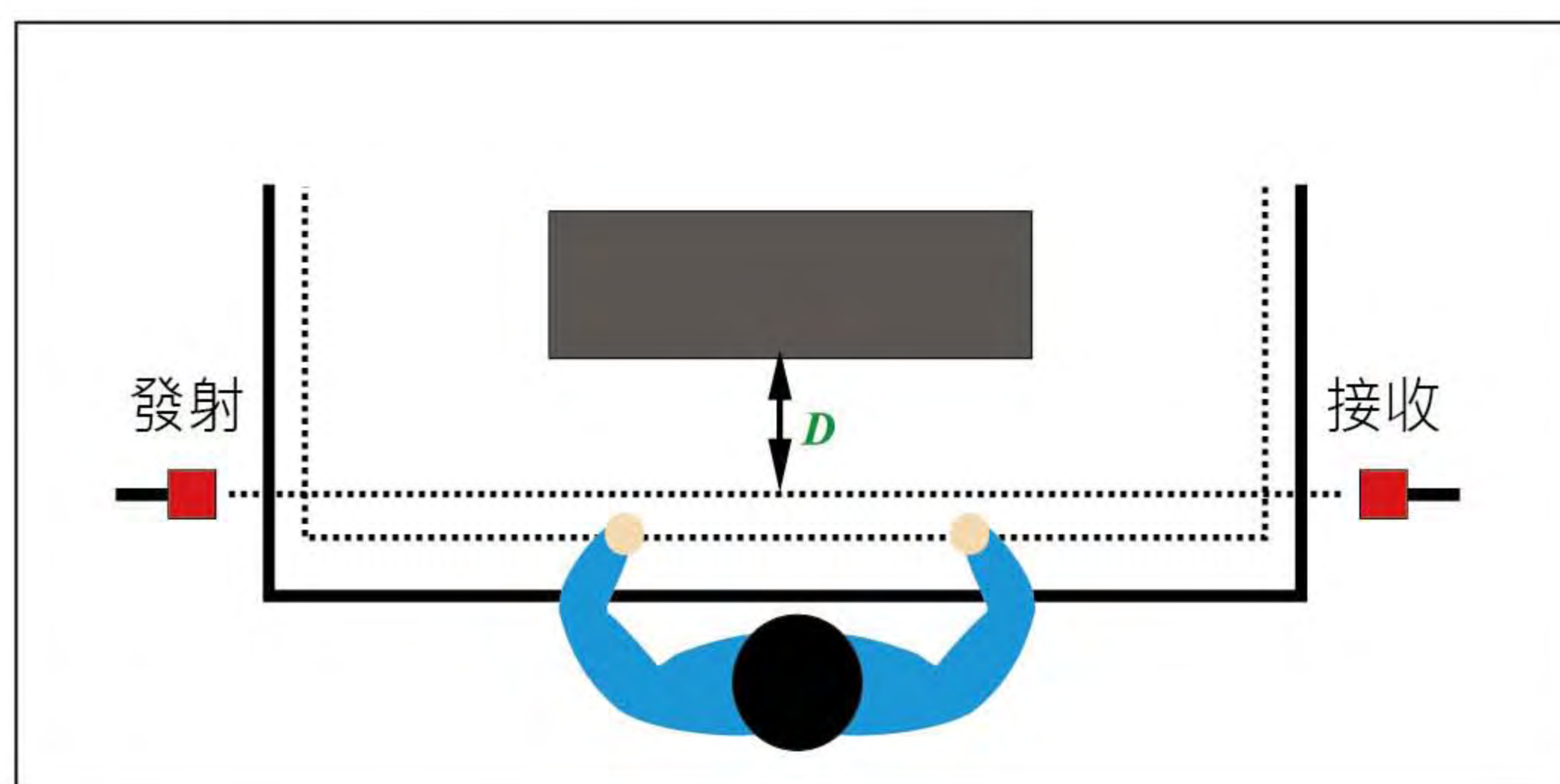
$$D=1600 \times T+\alpha \quad (D > 500\text{mm})$$

D=safe distance (mm)

T=response time (machine+sensor)

反應時間= (機器的反應時間+感應器的反應時間)

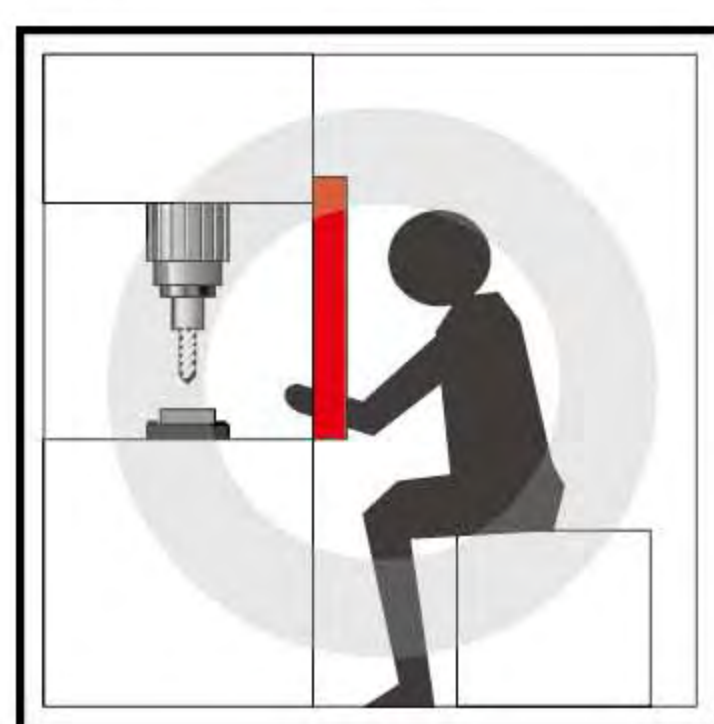
$\alpha=90\text{mm}$



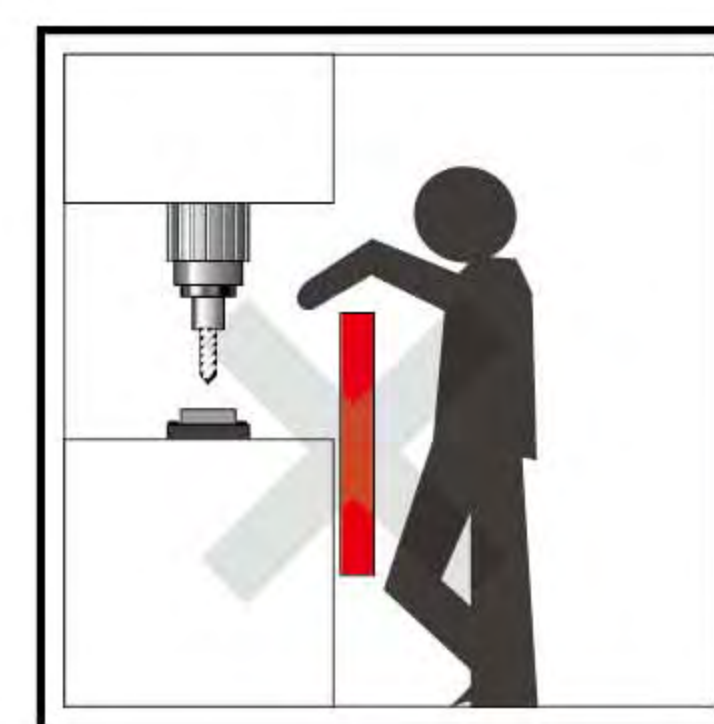
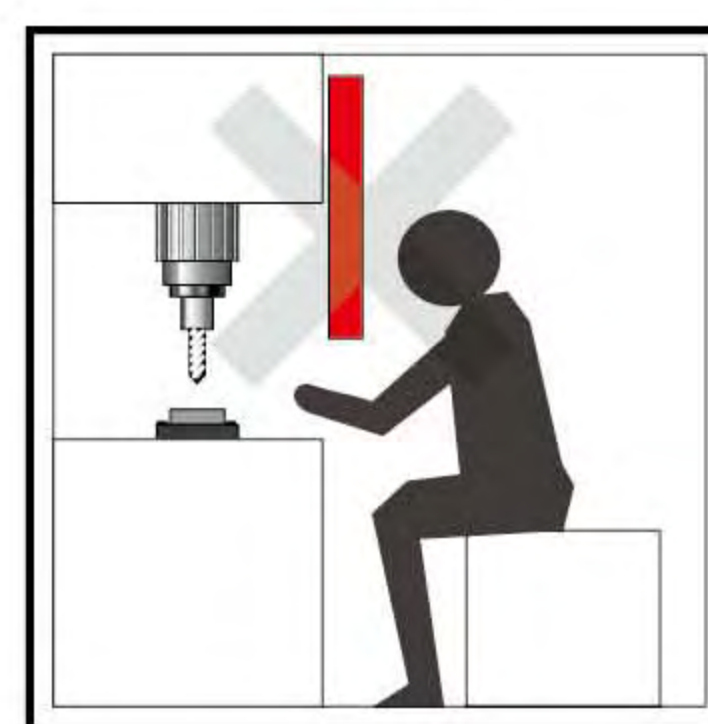
⚠ Warning3 / 警告3

Let worker keep working through the detecting range. / 在感測範圍內進行工作。

◆Correct / 正確

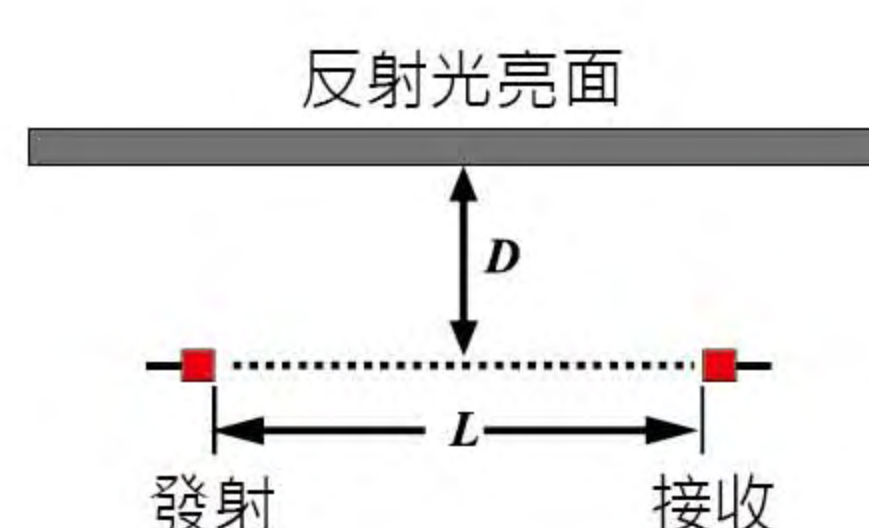
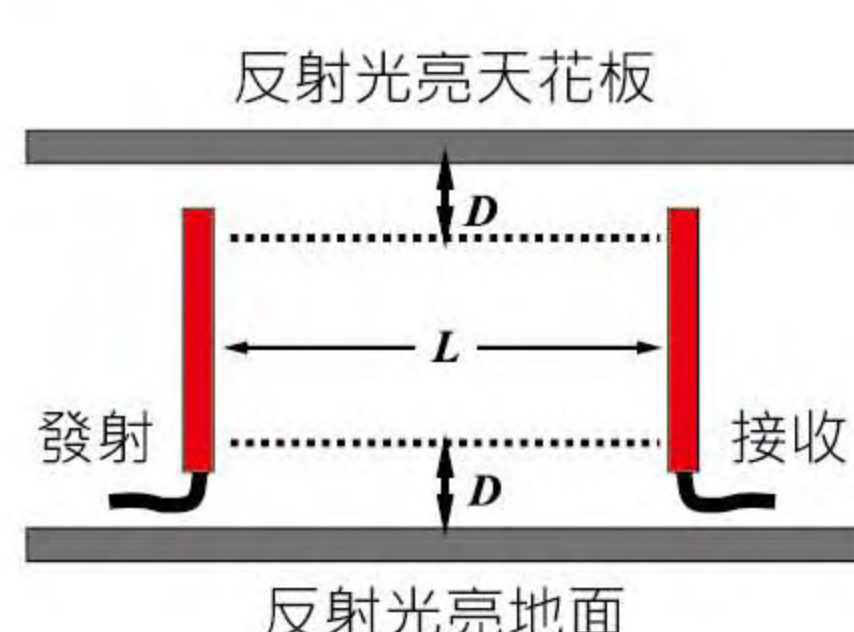


◆Wrong / 錯誤



⚠ Warning4 / 警告4

When installing, please think of other reflecting object which may cause malfunction. / 安裝時，考慮是否有其它會導致機能故障的反射物。



Acceptable installation distance / 可接受的安裝範圍
 $D \geq 150\text{mm}$
 $L = 0.3 \sim 5\text{M}$