

微型光電開關 (Miniature photoelectric switch)

Feature/特點:

- ◆ 體積非常小，是普通槽型光電開關的二分之一的體積；
The volume is very small, half volume of the ordinary Groove photoelectric switch.
- ◆ 採用四線制，每個感應器自帶常開常閉功能；
(Four wires cable, each sensor comes with normal open and normal close function.)
- ◆ 多種小尺寸外型提供選擇；
(Different Size are available.)



Procurement guide/訂購指南 備注：FC-SPS系列產品為一體式槽型光電

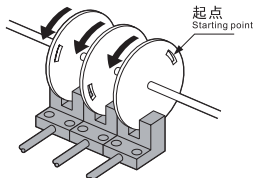
Category 類別	Model 型號	Detection Mode 檢出方式	Detection Distance 檢測距離	Standard Detection Object 標準檢測物	Connecting Method 出線方式
	FC-SPX202 FC-SPX202P	NPN.NO.NC PNP.NO.NC	5mm	Φ 1mm不透明物體 重複精度0.02mm 可訂做重複精度 0.01mm (Φ1mm transparent object Repeated accuracy is 0.02mm 0.01mm repeated accuracy can be customized.)	Φ2.8×2M/4-wires (4線制) 引線150mm帶M8連接器 (Lead 150mm with M8 connector)
	FC-SPX203 FC-SPX203P	NPN.NO.NC PNP.NO.NC			
	FC-SPX205 FC-SPX205P	NPN.NO.NC PNP.NO.NC			
	FC-SPX206 FC-SPX206P	NPN.NO.NC PNP.NO.NC			
	FC-SPX201 FC-SPX201P	NPN.NO.NC PNP.NO.NC			

※可訂做防水型，低電壓型（5V）等特殊產品。
(Waterproof, 5VDC and other special requirement photoelectric switch can be customized.)

Application/應用實例

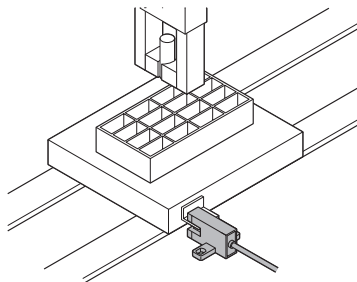
檢測滾動物體的起點
Detect Starting point of rolling object

可通過旋轉物體上的狹縫來檢測起點
Can detect rotating object's starting point through slot.



檢測模版的位置
Detect template position

當檢測到擋塊時，模版停止運行。
When sensor detects stopper, template stops running..

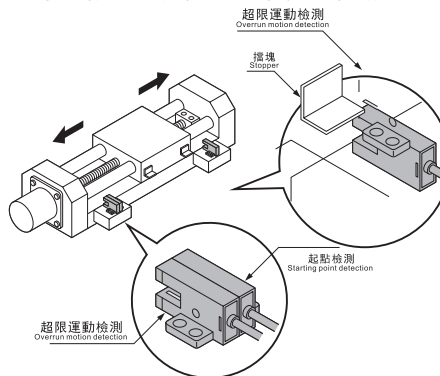


檢測起點和運動物體的超限運動

The overrun detection of the starting point and moving objects movement

使用基座上的擋塊檢測起點和超限運動

Using the stopper on the base to detect the starting point and overrun movement.



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Fiber Optic Amplifiers

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Ultrasonic sensor

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激光對準線
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PJ系列光電開關
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DR08/06系列光電開關
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QR系列光電開關
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HR系列光電開關
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槽型光電開關
(Groove photoelectric switch)

小槽型光電開關
(Small groove photoelectric switch)

大槽型光電開關
(Big groove photoelectric switch)

微型光電開關 (Miniature photoelectric switch)

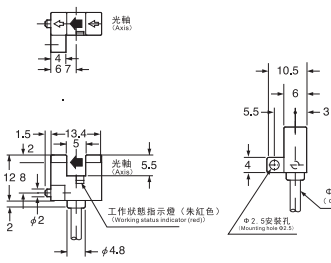
Specifications/規格表

Model/型號		FC-SPX201	FC-SPX202	FC-SPX203	FC-SPX205	FC-SPX206
Sensing type/檢測方式		FC-SPX201 FC-SPX201P	FC-SPX202 FC-SPX202P	FC-SPX203 FC-SPX203P	FC-SPX205 FC-SPX205P	FC-SPX206 FC-SPX206P
出線方式 Connecting Method	(Straight outlet) 直出線					
	(Connector) 連接器	FC-SPX201/15D FC-SPX201P/15D	FC-SPX202/15D FC-SPX202P/15D	FC-SPX203/15D FC-SPX203P/15D	FC-SPX205/15D FC-SPX205P/15D	FC-SPX206/15D FC-SPX206P/15D
Detection distance (width) / 檢測距離 (槽寬)		5mm				
light source/發光源		940um紅外調製光 940nm infrared modulated light				
Operating temperature/工作電壓		5 ~ 24V ± 10% (Ripple P-P: 10% Max)				
Current consumption/消耗電流		15mA Max				
Load current/負載電流		100mA Max at DC 24V				
Output type/輸出模式		N = NPN . NO . NC / NPN . NO P = PNP . NO . NC / PNP . NO				
Protection circuit/保護電路		Reverse polarity protection and short circuit protection 電源反接保護及輸出短路保護				
Response time/反應時間		0.3 ms Max				
Insulation resistance/隔離抗阻		20MΩmin. (DC500V)				
Dielectric strength/絕緣耐壓		AC1000V 60Hz for 60 Sec				
Operating Temperature/工作溫度		-10°C ~ +50°C (不可結霜、結冰 without icing or condensation)				
Ambient humidity/工作濕度		35% ~ 85% RH 相對濕度 (Relative Humidity)				
Storage temperature/儲存溫度		-20°C ~ +60°C (不可結霜、結冰 without icing or condensation)				
Storage humidity/儲存濕度		35% ~ 95% RH 相對濕度 (Relative Humidity)				
Protection degree/防水等級		IP64				
Material/外觀材質		ABS				
Connecting Method/出線方式		Φ 2.8 × 2M / 4-wires				
Weight/重量		Approx. 18.5g				

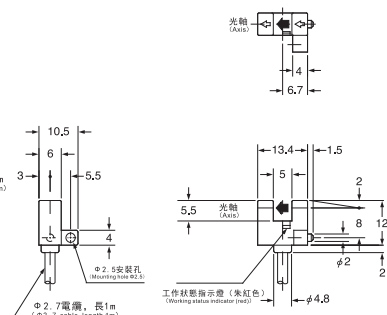
DiMensions/外型尺寸圖 (單位: mm)

直出線 (Direct outlet)

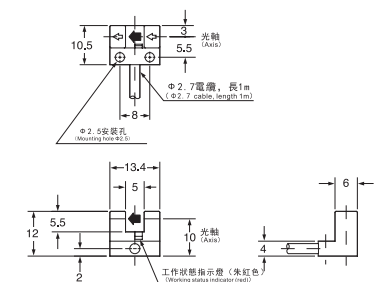
FC-SPX202N/P



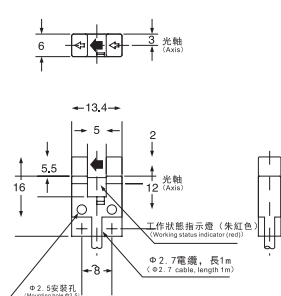
FC-SPX203N/P



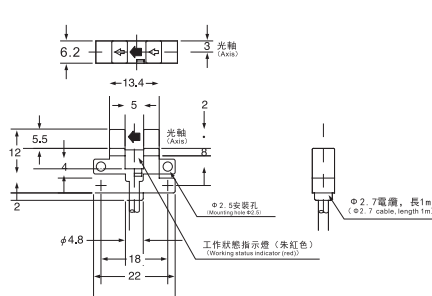
FC-SPX205N/P



FC-SPX201N/P



FC-SPX206N/P

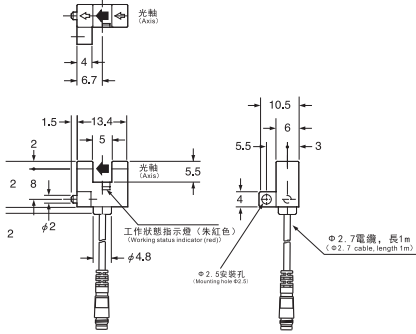


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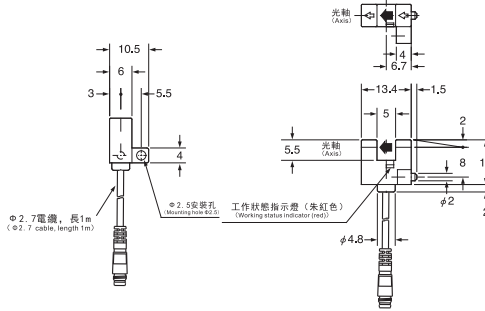
DiMensions/外型尺寸圖 (單位: mm)

連接器 (Connector)

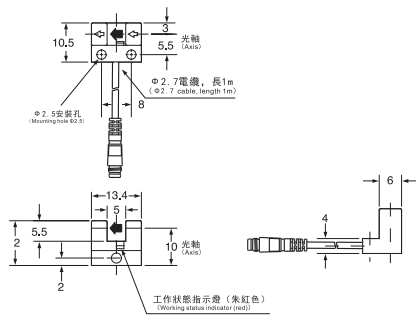
FC-SPX202N/15D P/15D



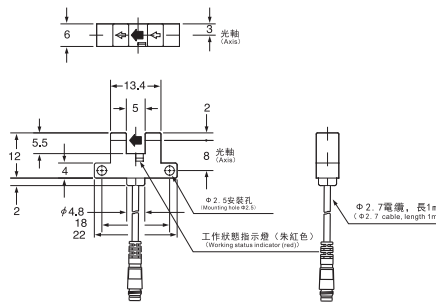
FC-SPX203N/15D P/15D



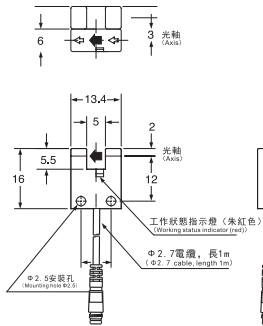
FC-SPX205N/15D P/15D



FC-SPX206N/15D P/15D

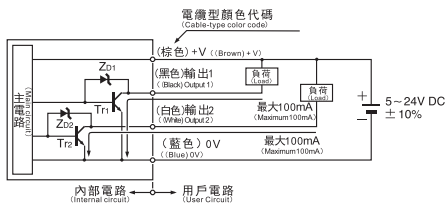


FC-SPX201N/15D P/15D

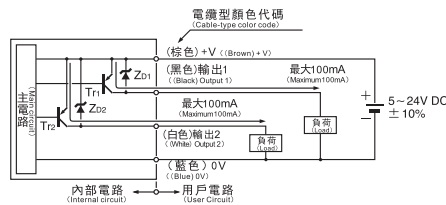


Wiring schemes/接線圖

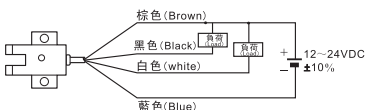
NPN. NO/NPN. NC



PNP. NO/PNP. NC



接線圖 (Wiring diagram)



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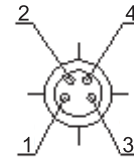
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接腳 (Pin)	線色 (Line color)
1	棕 (Brown)
2	白 (White)
3	藍 (Blue)
4	黑 (Black)