

光纖傳感器
(Fiber Optic Sensors)

光纖管
(Fiber optic tube)

光纖聚焦鏡
(Fiber Focus Lens)

接近開關
(Proximity switches)

光電開關
(Photoelectric switch)

標籤傳感器
(Label sensor)

光幕傳感器
(Light curtain)

激光對準線
(Laser alignment)

壓力傳感器
(Pressure sensor)

磁性開關
(Magnetic switch)

連接器
(Connector)

激光傳感器
(Laser Sensor)

色標傳感器
(Color sensors)

導軌式電源
(Rail Power Supplies)

固態繼電器
(Solid State Relay)

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小方形接近開關
(Small square proximity switch)

通用方形接近開關
(Universal Square proximity switch)

大方形接近開關
(Large square proximity switch)

環形接近開關
(Annular proximity switch)

小圓形接近開關
(Small round proximity switches)

F3C/F3L圓形接近 (M8)
F3C / F3L round close (M8)

F3C/F3L圓形接近 (M12)
F3C / F3L round close (M12)

F3C/F3L圓形接近 (M18)
F3C / F3L round close (M18)

F3C/F3L圓形接近 (M30)
F3C / F3L round close (M30)

超高速型接近開關
(High-speed proximity switch)

高重複精度接近開關
(High repeatability proximity switch)

全不銹鋼外殼接近開關
(All stainless steel proximity switch)

只檢測鐵鋼接近開關
(Steel proximity switch detects only)

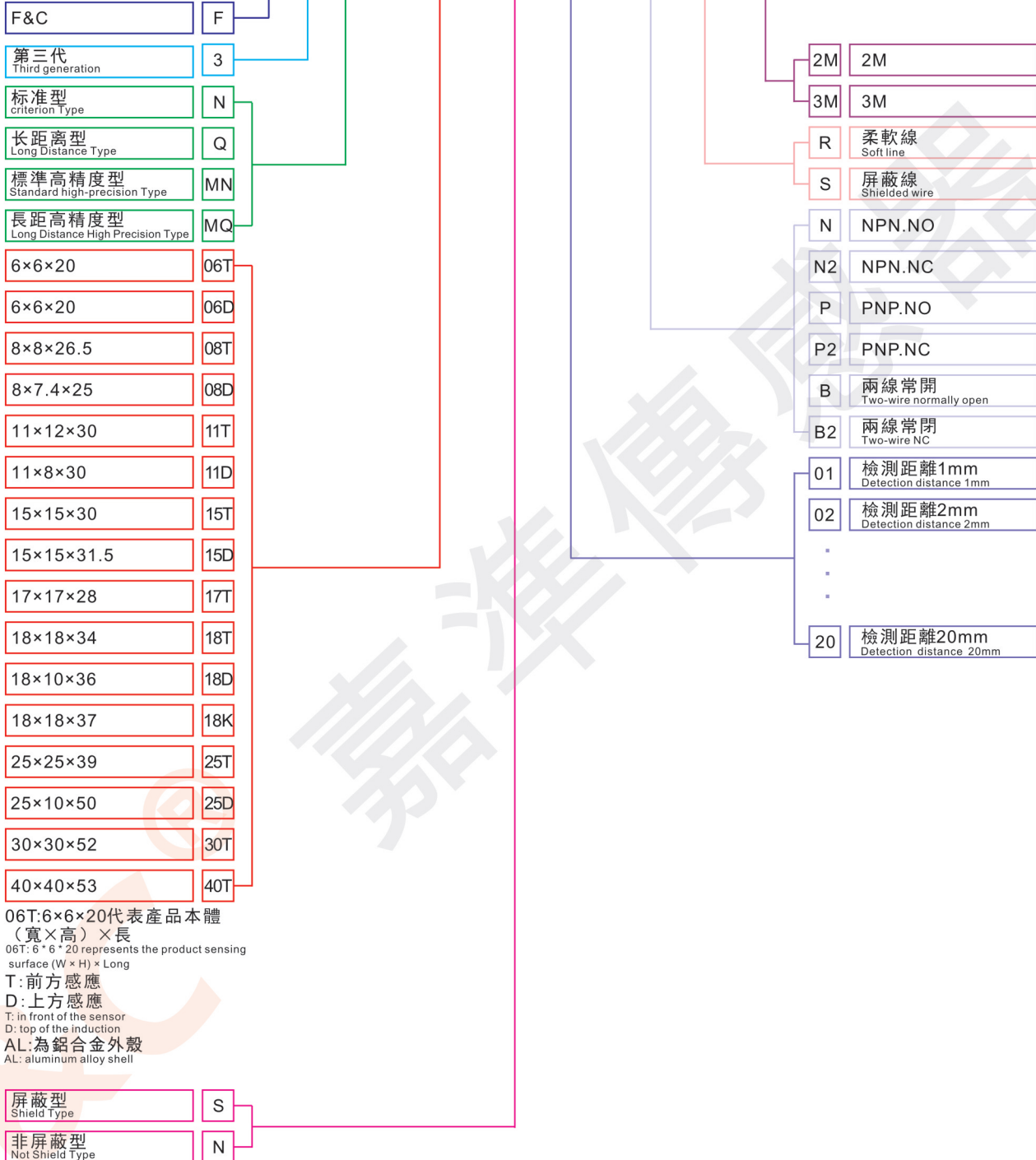
靜電容式接近開關
(Capacitive proximity switches)

液體檢測接近開關
(Liquid level detection proximity switch)

F3N/F3Q方形接近開關型號編碼規則 (特殊型號可接受定制)

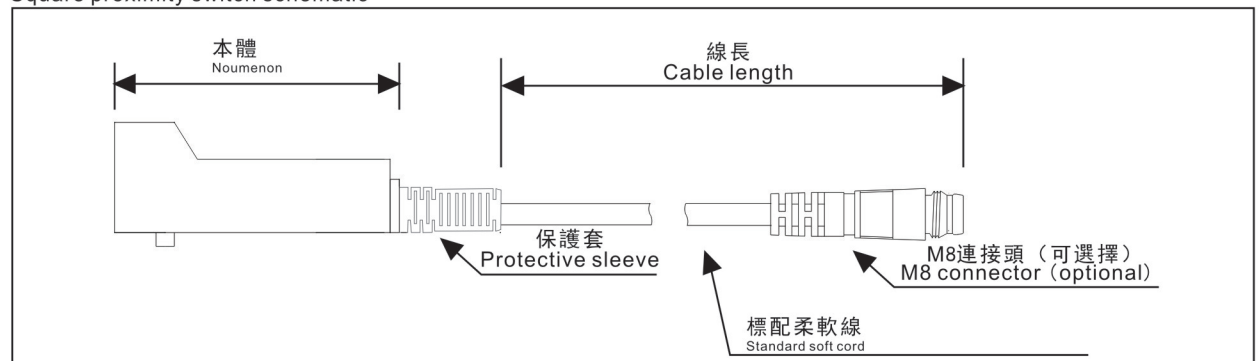
F3N/F3Q Square Proximity Switch Model Encoding Rules (special model acceptable custom)

F 3 N - 0 8 T N 0 2 - N R 2 M



06T:6×6×20代表產品本體
(寬×高)×長
06T: 6 * 6 * 20 represents the product sensing
surface (W × H) × Long
T: 前方感應
D: 上方感應
T: in front of the sensor
D: top of the induction
AL: 為鋁合金外殼
AL: aluminum alloy shell

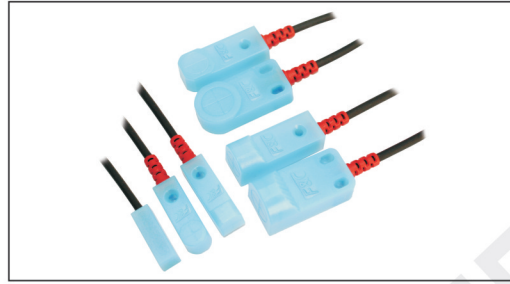
方形接近開關示意圖 Square proximity switch schematic



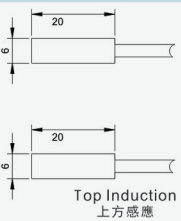
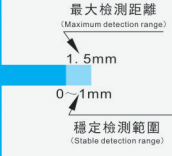
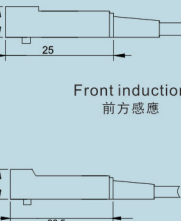

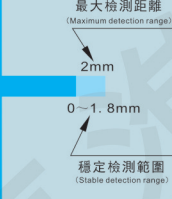
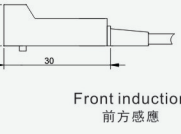
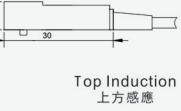
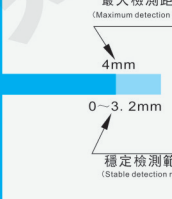
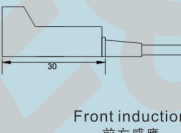
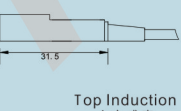
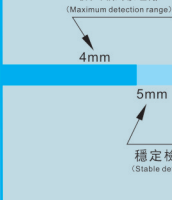
小方型接近開關 (Small square close to the switch)

■ 特點 (Feature):

- ◆ 低價位，適用與狹小空間安裝，安裝方便。
(Low-Price, small space for installation, easy installation.)
- ◆ 型號多樣各有上方檢測、前方檢測、兩線制、不同頻率等。
(Various models have the top test, the front test, two-wire system, different frequencies.)
- ◆ 一體成型結構能防水、防油、防塵等特殊應用。
(Low structure can be waterproof, put oil, dust and other special applications.)
- ◆ 可定制5VDC，可定制重複精度0.005mm，產品業界最強；
(Can be customized 5VDC, repeatability can be customized 0.005mm, the industry's strongest product;)



■ Procurement guide/訂購指南

Category 類別	Model 型號	detection mode 輸出方式	detection distance 檢測距離	detect the smallest objects 檢測最小物體	entry cable 出線方式
 <p>Top Induction 上方感應</p>	F3N-06TN01-N R2M	NPN.NO	 <p>最大檢測距離 (Maximum detection range) 1.5mm 穩定檢測範圍 (Stable detection range) 0-1mm</p>	6×6×1 (iron)	Φ3×2M/3-wires (3線制) 引線150mm M8連接器 (Lead 150mm cable with M8 connector)
	F3N-06TN01-N2 R2M	NPN.NC			
	F3N-06TN01-P R2M	PNP.NO			
	F3N-06TN01-P2 R2M	PNP.NC			
	F3N-06DN01-N R2M	NPN.NO			
	F3N-06DN01-N2 R2M	NPN.NC			
	F3N-06DN01-P R2M	PNP.NO			
F3N-06DN01-P2 R2M	PNP.NC				
 <p>Front induction 前方感應</p>  <p>Top Induction 上方感應</p>	F3N-08TN02-N R2M	NPN.NO	 <p>最大檢測距離 (Maximum detection range) 2mm 穩定檢測範圍 (Stable detection range) 0-1.8mm</p>	8×8×1 (iron)	Φ3×2M/3-wires (3線制) 引線150mm M8連接器 (Lead 150mm cable with M8 connector)
	F3N-08TN02-N2 R2M	NPN.NC			
	F3N-08TN02-P R2M	PNP.NO			
	F3N-08TN02-P2 R2M	PNP.NC			
	F3N-08TN02-B R2M	兩線.NO			
	F3N-08TN02-B2 R2M	兩線.NC			
	F3N-08DN02-N R2M	NPN.NO			
F3N-08DN02-N2 R2M	NPN.NC				
F3N-08DN02-P R2M	PNP.NO				
F3N-08DN02-P2 R2M	PNP.NC				
F3N-08DN02-B R2M	兩線.NO				
F3N-08DN02-B2 R2M	兩線.NC				
 <p>Front induction 前方感應</p>  <p>Top Induction 上方感應</p>	F3N-11TN04-N R2M	NPN.NO	 <p>最大檢測距離 (Maximum detection range) 4mm 穩定檢測範圍 (Stable detection range) 0-3.2mm</p>	10×10×1 (iron)	Φ3×2M/3-wires (3線制) 引線150mm M8連接器 (Lead 150mm cable with M8 connector)
	F3N-11TN04-N2 R2M	NPN.NC			
	F3N-11TN04-P R2M	PNP.NO			
	F3N-11TN04-P2 R2M	PNP.NC			
	F3N-11TN04-B R2M	兩線.NO			
	F3N-11TN04-B2 R2M	兩線.NC			
	F3N-11DN04-N R2M	NPN.NO			
F3N-11DN04-N2 R2M	NPN.NC				
F3N-11DN04-P R2M	PNP.NO				
F3N-11DN04-P2 R2M	PNP.NC				
F3N-11DN04-B R2M	兩線.NO				
F3N-11DN04-B2 R2M	兩線.NC				
 <p>Front induction 前方感應</p>  <p>Top Induction 上方感應</p>	F3N-15TN05-N R2M	NPN.NO	 <p>最大檢測距離 (Maximum detection range) 4mm 穩定檢測範圍 (Stable detection range) 5mm</p>	15×15×1 (iron)	Φ3×2M/3-wires (3線制) 引線150mm M8連接器 (Lead 150mm cable with M8 connector)
	F3N-15TN05-N2 R2M	NPN.NC			
	F3N-15TN05-P R2M	PNP.NO			
	F3N-15TN05-P2 R2M	PNP.NC			
	F3N-15TN05-B R2M	兩線.NO			
	F3N-15TN05-B2 R2M	兩線.NC			
	F3N-15DN05-N R2M	NPN.NO			
F3N-15DN05-N2 R2M	NPN.NC				
F3N-15DN05-P R2M	PNP.NO				
F3N-15DN05-P2 R2M	PNP.NC				
F3N-15DN05-B R2M	兩線.NO				
F3N-15DN05-B2 R2M	兩線.NC				

注A：D=感應器上直接帶M8連接器；/15D=引線150mm帶M8連接器；

(Note: D = sensor directly with M8 connector; /15D = Lead 150mm with M8 connector;)

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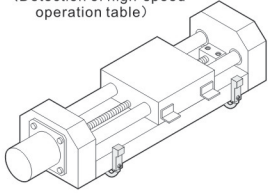
色標傳感器
(Color sensors)

導軌式電源
(Rail Power Supplies)

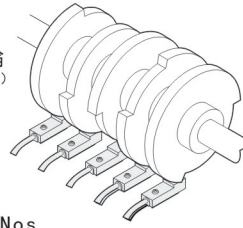
固態繼電器
(Solid State Relay)

Application/ 應用實例

檢測工作台高速運動
(Detection of high-speed operation table)

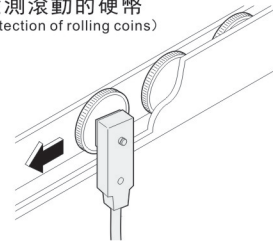


測凸輪
(Test cam)

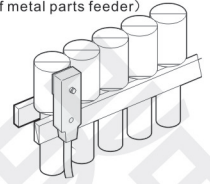


如果安裝100Nos
(If you install 100Nos)

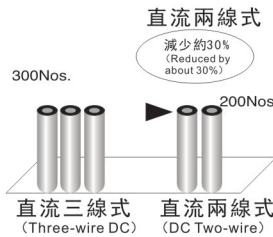
檢測滾動的硬幣
(Detection of rolling coins)



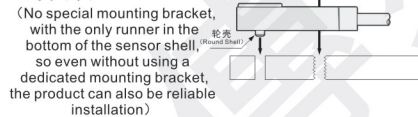
檢測進料器的金屬部件
(Detection of metal parts feeder)



節省能源與省配線，電流消耗為0.8mA以上，而且只直流通線式傳感器與直流通線式傳感器相比，減少約30%的接線工作
(Save energy with the provincial wiring, current consumption 0.8mA or more, and only two-wire sensors with DC DC Three-wire sensor, a decrease of about 30% of the wiring work.)



無需專用安裝支架，由於在傳感器底部裝有止轉輪殼，所以即使不適用專用安裝支架，產品也能被可靠的安裝。



防水 (Waterproof)
保護結構達到IP67。能防水
(Protection structures to IP67, waterproof)



Specifications/規格表

Model/ 型號		6×6	8×8	10×10	15×15
Specifications/ 規格表					
感應方式 (Induction way)	前方感應 (Front Induction)	F3N-06TN01-N R2M	F3N-08TN02-N R2M	F3N-11TN04-N R2M	F3N-15TN05-N R2M
		F3N-06TN01-N2 R2M	F3N-08TN02-N2 R2M	F3N-11TN04-N2 R2M	F3N-15TN05-N2 R2M
		F3N-06TN01-P R2M	F3N-08TN02-P R2M	F3N-11TN04-P R2M	F3N-15TN05-P R2M
		F3N-06TN01-P2 R2M	F3N-08TN02-P2 R2M	F3N-11TN04-P2 R2M	F3N-15TN05-P2 R2M
	上方感應 (Top Induction)	F3N-06DN01-N R2M	F3N-08DN02-N R2M	F3N-11DN04-N R2M	F3N-15DN05-N R2M
		F3N-06DN01-N2 R2M	F3N-08DN02-N2 R2M	F3N-11DN04-N2 R2M	F3N-15DN05-N2 R2M
		F3N-06DN01-P R2M	F3N-08DN02-P R2M	F3N-11DN04-P R2M	F3N-15DN05-P R2M
		F3N-06DN01-P2 R2M	F3N-08DN02-P2 R2M	F3N-11DN04-P2 R2M	F3N-15DN05-P2 R2M
Scanning distance/ 檢出距離		1.5mm	2mm	4mm	5mm
Recommended distance/ 建議距離		1mm	1.8mm	3.2mm	4mm
Standard sensing object/ 標準檢測物		6×6× (iron)	8×8× (iron)	10×10× (iron)	15×15× (iron)
Response frequency/ 反應頻率		DC: 600Hz可定制不同頻率 (Different frequencies can be customized)			
Hysteresis/ 磁帶		1%			
Operating voltage/ 工作電壓		DC: 10~30VDC 10% / 可定制5V (Customizable 5V)			
Current consumption/ 消耗電流		DC: <8mA No-load			
Load current/ 負載電流		DC: 30V 100mA Max			
Leakage current/ 漏電流		DC: 1.1mA No-load			
Residual voltage/ 殘餘電壓		DC: <1.0VDC No-load			
Operating temperature/ 工作溫度範圍		-20°C~+70°C			
Material/ 外觀材質					
Wiring method/ 出線方式		Φ3×2M/3-wires / Φ3×2M/2-wires / Φ4×2M/3-wires Φ4×2M/2-wires			
Protection degree/ 防水等級		IP67 可定制IP68			

(備註: B為兩線制)
(Note: B mean two-cores cable)

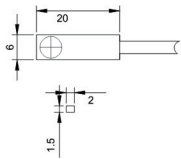
小方型接近開關

(Small square close to the switch)

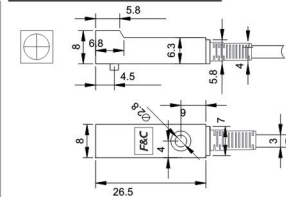
DiMensions/外型尺寸圖(單位:mm)

直出線 (Straight outlet)

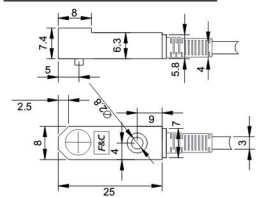
F3N-06TN01-N R2M
F3N-06DN01-N R2M



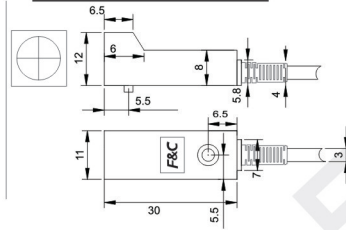
F3N-08TN02-N R2M



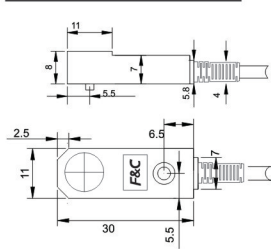
F3N-08DN02-N R2M



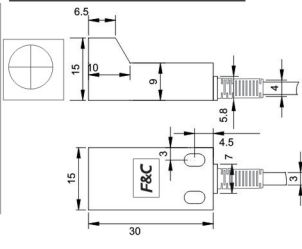
F3N-11TN04-N R2M



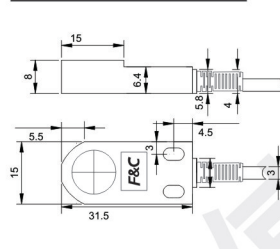
F3N-11DN04-N R2M



F3N-15TN05-N R2M

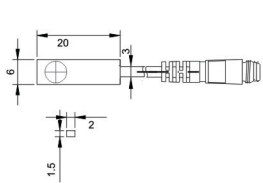


F3N-15DN05-N R2M

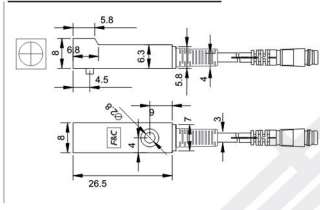


連接器 (Connector)

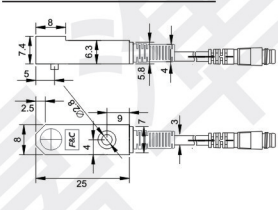
F3N-06TN01-N R2M
F3N-06DN01-N R2M



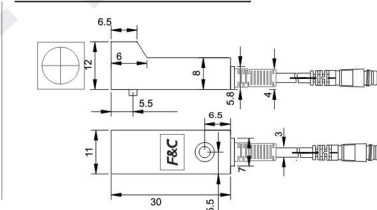
F3N-08TN01-N R2M



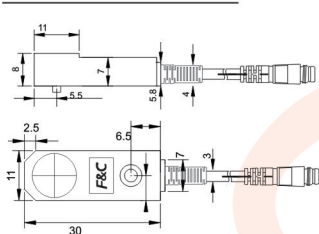
F3N-08DN01-N R2M



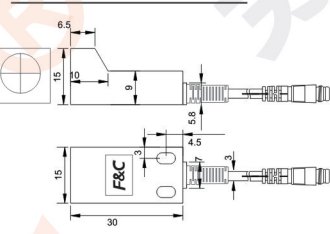
F3N-11TN01-N R2M



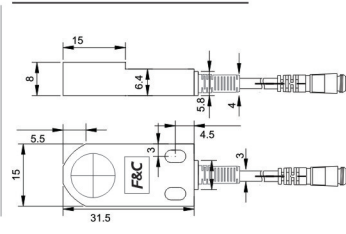
F3N-11DN04-N R2M



F3N-15TN05-N R2M

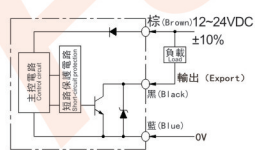


F3N-15DN05-N R2M

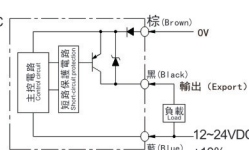


Wiring schemes/接線圖

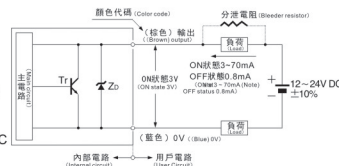
NPN. NO/NPN. NC



PNP. NO/PNP. NC



兩線接線圖 NO/NC
(Two-line wiring diagram of NO/NC)



接線圖 (Wiring diagram)



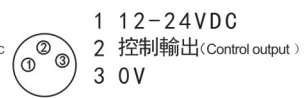
接線圖 (Wiring diagram)



接線圖 (Wiring diagram)



引腳佈局 (Blue)



光纖傳感器

(Fiber Optic Sensors)

光纖管

(Fiber optic tube)

光纖聚焦鏡

(Fiber Focus Lens)

接近開關

(Proximity switches)

光電開關

(Photoelectric switch)

標籤傳感器

(Label sensor)

光幕傳感器

(Light curtain)

激光對準線

(Laser alignment)

壓力傳感器

(Pressure sensor)

磁性開關

(Magnetic switch)

連接器

(Connector)

激光傳感器

(Laser Sensor)

色標傳感器

(Color sensors)

導軌式電源

(Rail Power Supplies)

固態繼電器

(Solid State Relay)

接近開關

(Proximity switch)

小方形接近開關

(Small square proximity switch)

通用方形接近開關

(Universal Square proximity switch)

大方形接近開關

(Large square proximity switch)

環形接近開關

(Annular proximity switch)

小圓形接近開關

(Small round proximity switches)

F3C/F3L圓形接近 (M8)

F3C / F3L round close (M8)

F3C/F3L圓形接近 (M12)

F3C / F3L round close (M12)

F3C/F3L圓形接近 (M18)

F3C / F3L round close (M18)

F3C/F3L圓形接近 (M30)

F3C / F3L round close (M30)

超高速型接近開關

(High-speed proximity switch)

高重複精度接近開關

(High repeatability proximity switch)

全不銹鋼外殼接近開關

(All stainless steel proximity switch)

只檢測鐵鋼接近開關

(Steel proximity switch detects only)

靜電容式接近開關

(Capacitive proximity switches)

液體檢測接近開關

(Liquid level detection proximity switch)

光纖傳感器
(Fiber Optic Sensors)

光纖管
(Fiber optic tube)

光纖聚焦鏡
(Fiber Focus Lens)

接近開關
(Proximity switches)

光電開關
(Photoelectric switch)

標籤傳感器
(Label sensor)

光幕傳感器
(Light curtain)

激光對準線
(Laser alignment)

壓力傳感器
(Pressure sensor)

磁性開關
(Magnetic switch)

連接器
(Connector)

激光傳感器
(Laser Sensor)

色標傳感器
(Color sensors)

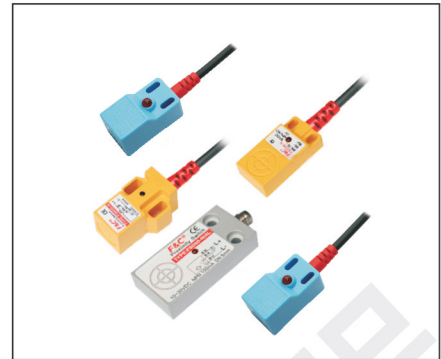
導軌式電源
(Rail Power Supplies)

固態繼電器
(Solid State Relay)

通用方形接近開關
(Universal Proximity Switch)

■ 特點:

- ◆ 高性能檢測、低價格、全短路保護、逆極保護。
(High-performance detection, low prices, full short circuit protection, reverse polarity protection.)
- ◆ 供電電源10~30VDC內藏放大器，直接控制輸出。
(10 ~ 30VDC power supply built-in amplifier, direct control of the output.)
- ◆ 清晰易見的LED指示燈。
(Clear and easy to see LED.)
- ◆ 晶體輸出200mA，高速反應0.1ms。
(Transistor output 200mA, high-speed response 0.1ms.)
- ◆ 可定制5V工作電壓和不同頻率的產品。
(5V operating voltage and different frequencies of products can be custom-made)
- ◆ 可定制5mm、6mm、8mm等特殊距離的產品。
(Customizable 5mm, 6mm, 8mm, and other special range of products.)



■ Procurement guide/訂購指南

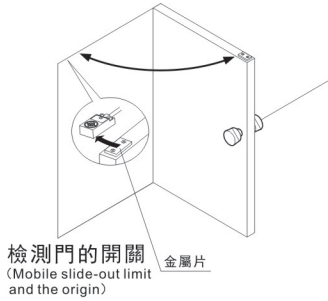
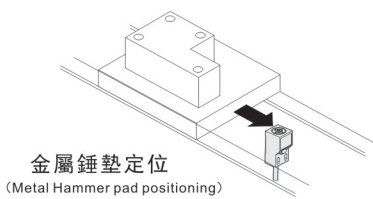
Category 類別	Model 型號	detection mode 輸出方式	detection distance 檢測距離	detect the smallest objects 檢測最小物體	entry cable 出線方式
	F3N-18DN04-N R2M	NPN. NO	最大檢測距離 (Maximum detection range) 4mm 0~3.2mm 穩定檢測距離 (Stable detection range)	18×18×1 (iron)	Φ3×2M/3-wires (3線制) 引線150mm M8連接器 (Lead 150mm with M8 connector)
	F3N-18DN04-N2 R2M	NPN. NC			
	F3N-18DN04-P R2M	PNP. NO			
	F3N-18DN04-P2 R2M	PNP. NC			
	F3N-18DN04-N/15D R2M	NPN. NO			
	F3N-18DN04-N2/15D R2M	NPN. NC			
	F3N-18DN04-P/15D R2M	PNP. NO			
F3N-18DN04-P2/15D R2M	PNP. NC				
	F3N-18DN05-N/AL R2M	NPN. NO	最大檢測距離 (Maximum detection range) 5mm 0~4.2mm 穩定檢測距離 (Stable detection range)	18×18×1 (iron)	Φ3×2M/3-wires (3線制) M8連接器 (M8 connector)
	F3N-18DN05-N2/AL R2M	NPN. NC			
	F3N-18DN05-P/AL R2M	PNP. NO			
	F3N-18DN05-P2/AL R2M	PNP. NC			
	F3N-18TN05-N R2M	NPN. NO	最大檢測距離 (Maximum detection range) 5mm 0~4.2mm 穩定檢測距離 (Stable detection range)	18×18×1 (iron)	Φ3×2M/3-wires (3線制) M8連接器 (M8 connector)
	F3N-18TN05-N2 R2M	NPN. NC			
	F3N-18TN05-P R2M	PNP. NO			
	F3N-18TN05-P2 R2M	PNP. NC			
	F3N-18TN05-N/15D R2M	NPN. NO			
	F3N-18TN05-N2/15D R2M	NPN. NC			
F3N-18TN05-P/15D R2M	PNP. NO				
F3N-18TN05-P2/15D R2M	PNP. NC				
	F3N-18KN05-N R2M	NPN. NO	最大檢測距離 (Maximum detection range) 5mm 0~4.2mm 穩定檢測距離 (Stable detection range)	17×17×1 (iron)	Φ3×2M/3-wires (3線制) M8連接器 (M8 connector)
	F3N-18KN05-N2 R2M	NPN. NC			
	F3N-18KN05-P R2M	PNP. NO			
	F3N-18KN05-P2 R2M	PNP. NC			
	F3N-18KN05-N/15D R2M	NPN. NO			
	F3N-18KN05-N2/15D R2M	NPN. NC			
	F3N-18KN05-P/15D R2M	PNP. NO			
F3N-18KN05-P2/15D R2M	PNP. NC				
	F3N-17TN05-N R2M	NPN. NO	最大檢測距離 (Maximum detection range) 5mm 0~4.2mm 穩定檢測距離 (Stable detection range)	17×17×1 (iron)	Φ3×2M/3-wires (3線制) 引線150mm M8連接器 (Lead 150mm with M8 connector)
	F3N-17TN05-N2 R2M	NPN. NC			
	F3N-17TN05-P R2M	PNP. NO			
	F3N-17TN05-P2 R2M	PNP. NC			
	F3N-17TN05-N/15D R2M	NPN. NO			
	F3N-17TN05-N2/15D R2M	NPN. NC			
	F3N-17TN05-P/15D R2M	PNP. NO			
F3N-17TN05-P2/15D R2M	PNP. NC				

注A：D=感應器上直接帶M8連接器；/15D=引線150mm帶M8連接器；

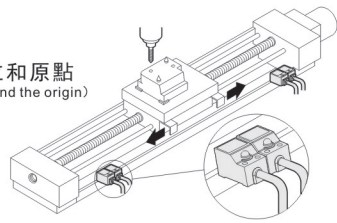
(Note: D = sensor directly with M8 connector; /15D = Lead 150mm with M8 connector;)

通用方形接近開關 (Universal Proximity Switch)

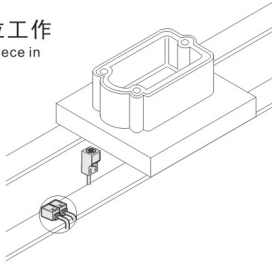
Application/應用實例



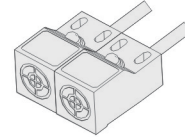
移動滑出的限位和原點
(Mobile slide-out limit and the origin)



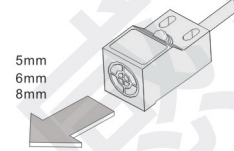
在焊接臺上定位工作
(Positioning the workpiece in the welding stage)



不同頻率型可貼近安裝
(different frequencies be installed closely)



可訂制長距離型
(can Customize long-distance type)



Specifications/規格表

Model/型號	上方感應 (Above the induction)	上方感應 (Above the induction)	前方感應 (Front of the sensor)	前方感應 (Front of the sensor)	前方感應 (Front of the sensor)	
Specifications/規格表						
(And outlet)出線方式	(Straight outlet) 直出線	F3N-18DN04-N R2M	F3N-18DN05-N/AL R2M	F3N-18TN05-N R2M	F3N-18KN05-N R2M	F3N-17TN05-N R2M
		F3N-18DN04-N2 R2M	F3N-18DN05-N2/AL R2M	F3N-18TN05-N2 R2M	F3N-18KN05-N2 R2M	F3N-17TN05-N2 R2M
		F3N-18DN04-P R2M	F3N-18DN05-P/AL R2M	F3N-18TN05-P R2M	F3N-18KN05-P R2M	F3N-17TN05-P R2M
		F3N-18DN04-P2 R2M	F3N-18DN05-P2/AL R2M	F3N-18TN05-P2 R2M	F3N-18KN05-P2 R2M	F3N-17TN05-P2 R2M
(Connector) 連接器		F3N-18DN04-N/15D R2M	F3N-18DN05-N/15D R2M	F3N-18TN05-N/15D R2M	F3N-18KN05-N/15D R2M	F3N-17TN05-N/15D R2M
		F3N-18DN04-N2/15D R2M	F3N-18DN05-N2/15D R2M	F3N-18TN05-N2/15D R2M	F3N-18KN05-N2/15D R2M	F3N-17TN05-N2/15D R2M
		F3N-18DN04-P/15D R2M	F3N-18DN05-P/15D R2M	F3N-18TN05-P/15D R2M	F3N-18KN05-P/15D R2M	F3N-17TN05-P/15D R2M
		F3N-18DN04-P2/15D R2M	F3N-18DN05-P2/15D R2M	F3N-18TN05-P2/15D R2M	F3N-18KN05-P2/15D R2M	F3N-17TN05-P2/15D R2M
Scanning distance/檢出距離	4mm	5mm	5mm	5mm	5mm	
Recommended distance/建議距離	3.2mm	4.2mm	4.2mm	4.2mm	4.2mm	
Standard sensing object/標準檢測物	18×18×1 (iron)	18×18×1 (iron)	18×18×1 (iron)	18×18×1 (iron)	17×17×1 (iron)	
Response frequency/反應頻率	DC: 600Hz 250/秒					
Hysteresis/磁帶	10% of ≤ sensing distance					
Operating voltage/工作電壓	DC: 12~24VDC 10%					
Current consumption/消耗電流	DC: <8mA No-load					
Load current/負載電流	DC: 30V 200mA Max					
Leakage current/漏電流	DC: 1.1mA No-load					
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					
Residual voltage/殘餘電壓	DC: <1.0VDC No-load					
Operating temperature/工作溫度範圍	-20℃ ~ +70℃					
Material/外觀材質	ABS/PE					
Wiring method/出線方式	Φ3×2M/3-wires					
Protection degree/防水等級	IP67					

光纖傳感器
(Fiber Optic Sensors)

光纖管
(Fiber optic tube)

光纖聚焦鏡
(Fiber Focus Lens)

接近開關
(Proximity switches)

光電開關
(Photoelectric switch)

標籤傳感器
(Label sensor)

光幕傳感器
(Light curtain)

激光對準線
(Laser alignment)

壓力傳感器
(Pressure sensor)

磁性開關
(Magnetic switch)

連接器
(Connector)

激光傳感器
(Laser Sensor)

色標傳感器
(Color sensors)

導軌式電源
(Rail Power Supplies)

固態繼電器
(Solid State Relay)

接近開關
(Proximity switch)

小方形接近開關
(Small square proximity switch)

通用方形接近開關
(Universal Square proximity switch)

大方形接近開關
(Large square proximity switch)

環形接近開關
(Annular proximity switch)

小圓形接近開關
(Small round proximity switches)

F3C/F3L圓形接近(M8)
F3C / F3L round close (M8)

F3C/F3L圓形接近(M12)
F3C / F3L round close (M12)

F3C/F3L圓形接近(M18)
F3C / F3L round close (M18)

F3C/F3L圓形接近(M30)
F3C / F3L round close (M30)

超高速型接近開關
(High-speed proximity switch)

高重複精度接近開關
(High repeatability proximity switch)

全不銹鋼外殼接近開關
(All stainless steel proximity switch)

只檢測鐵鋼接近開關
(Steel proximity switch detects only)

靜電容式接近開關
(Capacitive proximity switches)

液體檢測接近開關
(Liquid level detection proximity switch)

光纖傳感器
(Fiber Optic Sensors)

光纖管
(Fiber optic tube)

光纖聚焦鏡
(Fiber Focus Lens)

接近開關
(Proximity switches)

光電開關
(Photoelectric switch)

標籤傳感器
(Label sensor)

光幕傳感器
(Light curtain)

激光對準線
(Laser alignment)

壓力傳感器
(Pressure sensor)

磁性開關
(Magnetic switch)

連接器
(Connector)

激光傳感器
(Laser Sensor)

色標傳感器
(Color sensors)

導軌式電源
(Rail Power Supplies)

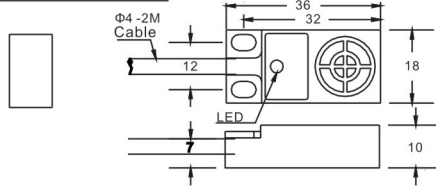
固態繼電器
(Solid State Relay)

通用方形接近開關 (Universal Proximity Switch)

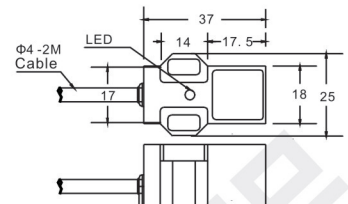
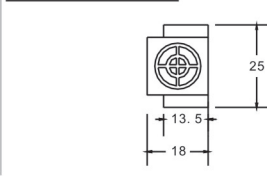
DiMensions/外形尺寸圖 (單位: mm)

直出線 (Straight outlet)

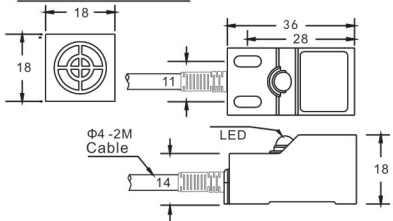
F3N-18DN04-N R2M



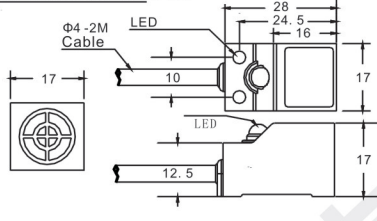
F3N-18KN05-N R2M



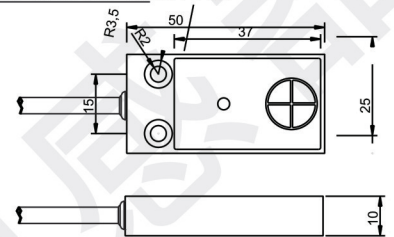
F3N-18TN05-N R2M



F3N-17DN05-N R2M

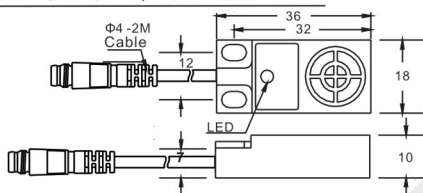


F3N-18DN05-N/AL R2M

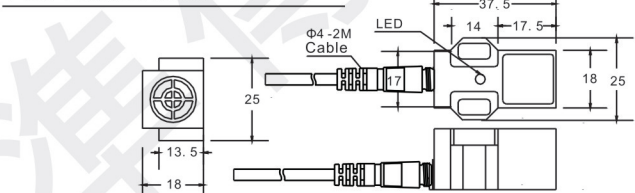


連接器 (Connector)

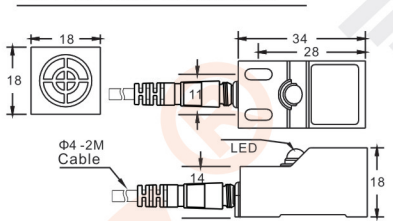
F3N-18DN04-N/15D R2M



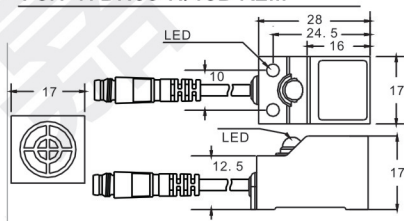
F3N-18KN05-N/15D



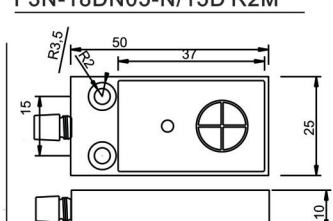
F3N-18TN05-N/15D R2M



F3N-17DN05-N/15D R2M

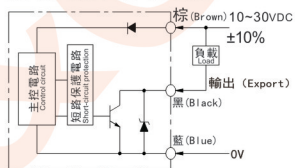


F3N-18DN05-N/15D R2M

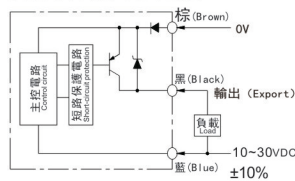


Wiring schemes/接線圖

NPN. NO/NPN. NC



PNP. NO/PNP. NC



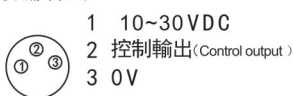
接線圖 (Wiring diagram)



接線圖 (Wiring diagram)



引腳佈局 (Blue)



大方型接近開關 (Generous-type proximity switch)

Feature/特點:

- ◆ 通用與長距離檢測，大空間安裝。
(Common to long distance detection, a large space to install.)
- ◆ 供可訂做長型安裝孔，全短路保護、特殊功能等產品。
(long mounting holes full short circuit protection special function products can be made)
- ◆ 可定制帶連接器型接近開關。
(Can be customized with connector type proximity switch.)



Procurement guide/訂購指南

Category 類別	Model 型號	detection mode 檢出方式	detection distance 檢測距離	detect the smallest objects 檢測最小物體	entry cable 出線方式
	F3N-25TN10-N R2M	NPN. NO	最大檢測距離 (Maximum detection range) 10mm	25×25×1 (iron)	Ø4.2×2M/3-wires (3線制)
	F3N-25TN10-N2 R2M	NPN. NC	穩定檢測距離 (Stable detection range) 9mm		
	F3N-25TN10-P R2M	PNP. NO			
	F3N-25TN10-P2 R2M	PNP. NC			
	F3N-25TN10-N/D R2M	NPN. NO	最大檢測距離 (Maximum detection range) 10mm	25×25×1 (iron)	M8 3芯連接線帶2m線 (M8,2m long extended cable of 3-cores)
	F3N-25TN10-N2/D R2M	NPN. NC	穩定檢測距離 (Stable detection range) 9mm		
	F3N-25TN10-P/D R2M	PNP. NO			
	F3N-25TN10-P2/D R2M	PNP. NC			
	F3N-30TN15-N R2M	NPN. NO	最大檢測距離 (Maximum detection range) 15mm	30×30×1 (iron)	Ø4.2×2M/3-wires (3線制)
	F3N-30TN15-N2 R2M	NPN. NC	穩定檢測距離 (Stable detection range) 12mm		
	F3N-30TN15-P R2M	PNP. NO			
	F3N-30TN15-P2 R2M	PNP. NC			
	F3N-30TN15-N/D R2M	NPN. NO	最大檢測距離 (Maximum detection range) 20mm	30×30×1 (iron)	M8 3芯連接線帶2m線 (M8,2m long extended cable of 3-cores)
	F3N-30TN15-N2/D R2M	NPN. NC	穩定檢測距離 (Stable detection range) 18mm		
	F3N-30TN15-P/D R2M	PNP. NO			
	F3N-30TN15-P2/D R2M	PNP. NC			
	F3N-40TN20-N R2M	NPN. NO	最大檢測距離 (Maximum detection range) 20mm	40×40×1 (iron)	Ø4.2×2M/3-wires (3線制)
	F3N-40TN20-N2 R2M	NPN. NC	穩定檢測距離 (Stable detection range) 18mm		
	F3N-40TN20-P R2M	PNP. NO			
	F3N-40TN20-P2 R2M	PNP. NC			
	F3N-40TN20-N/D R2M	NPN. NO	最大檢測距離 (Maximum detection range) 20mm	40×40×1 (iron)	M8 3芯連接線帶2m線 (M8,2m long extended cable of 3-cores)
	F3N-40TN20-N2/D R2M	NPN. NC	穩定檢測距離 (Stable detection range) 18mm		
	F3N-40TN20-P/D R2M	PNP. NO			
	F3N-40TN20-P2/D R2M	PNP. NC			

注A：D=感應器上直接帶M8連接器；/15D=引線150mm帶M8連接器；
(Note: D = sensor directly with M8 connector; /15D = Lead 150mm with M8 connector.)

光纖傳感器
(Fiber Optic Sensors)

光纖管
(Fiber optic tube)

光纖聚焦鏡
(Fiber Focus Lens)

接近開關
(Proximity switches)

光電開關
(Photoelectric switch)

標籤傳感器
(Label sensor)

光幕傳感器
(Light curtain)

激光對準線
(Laser alignment)

壓力傳感器
(Pressure sensor)

磁性開關
(Magnetic switch)

連接器
(Connector)

激光傳感器
(Laser Sensor)

色標傳感器
(Color sensors)

導軌式電源
(Rail Power Supplies)

固態繼電器
(Solid State Relay)

接近開關
(Proximity switch)

小方形接近開關
(Small square proximity switch)

通用方形接近開關
(Universal Square proximity switch)

大方形接近開關
(Large square proximity switch)

環形接近開關
(Annular proximity switch)

小圓形接近開關
(Small round proximity switches)

F3C/F3L圓形接近 (M8)
F3C / F3L round close (M8)

F3C/F3L圓形接近 (M12)
F3C / F3L round close (M12)

F3C/F3L圓形接近 (M18)
F3C / F3L round close (M18)

F3C/F3L圓形接近 (M30)
F3C / F3L round close (M30)

超高速型接近開關
(High-speed proximity switch)

高重複精度接近開關
(High repeatability proximity switch)

全不銹鋼外殼接近開關
(All stainless steel proximity switch)

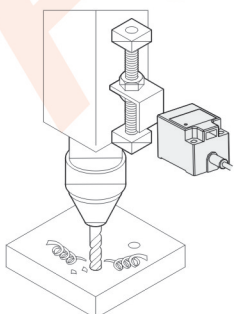
只檢測鐵鋼接近開關
(Steel proximity switch detects only)

靜電容式接近開關
(Capacitive proximity switches)

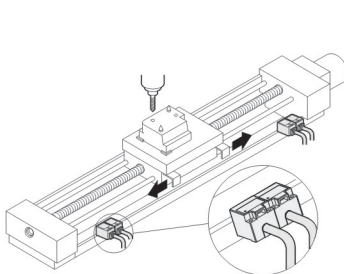
液體檢測接近開關
(Liquid level detection proximity switch)

Application/應用實例

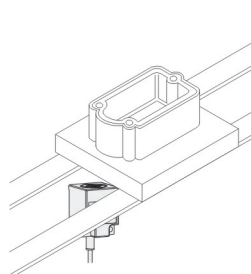
檢測鑽頭的深度
(Detection of the depth of drill)



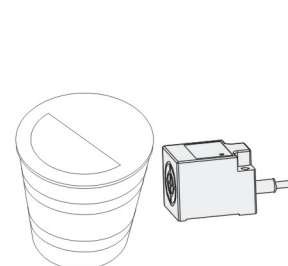
移動滑出的限位和原點
(Mobile slide-out limit and the origin)



在焊接臺上定位工件
(Positioning the workpiece in the welding stage)



檢測鋁蓋
(Detection of aluminum cap)



光纖傳感器
(Fiber Optic Sensors)

光纖管
(Fiber optic tube)

光纖聚焦鏡
(Fiber Focus Lens)

接近開關
(Proximity switches)

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(Color sensors)

導軌式電源
(Rail Power Supplies)

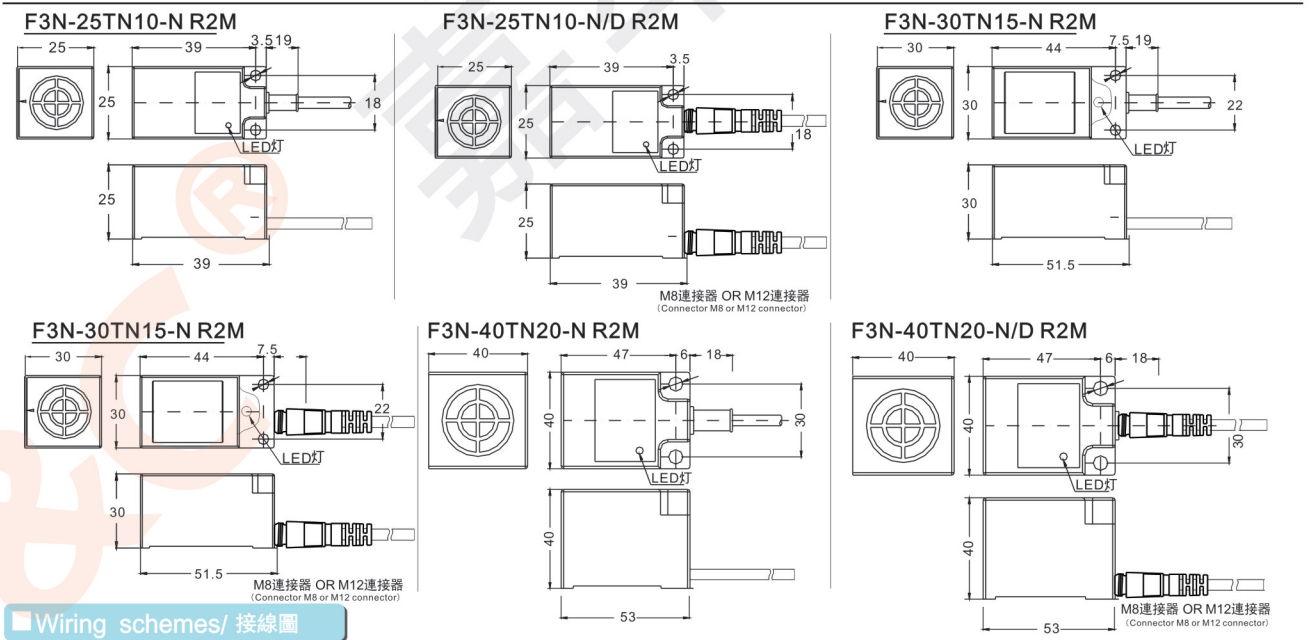
固態繼電器
(Solid State Relay)

大方型接近開關
(Generous-type proximity switch)

Specifications/規格表

Model/型號	F3N-25TN10-N R2M	F3N-25TN10-N/D R2M	F3N-30TN15-N R2M	F3N-30TN15-N/D R2M	F3N-40TN20-N R2M	F3N-40TN20-N/D R2M
Scanning distance/檢出距離	10mm	10mm	15mm	15mm	20mm	20mm
Recommended distance/建議距離	9mm	9mm	12mm	12mm	18mm	18mm
Standard sensing object/標準檢測物	25×25×1(iron)	25×25×1(iron)	30×30×1(iron)	30×30×1(iron)	40×40×1(iron)	40×40×1(iron)
Response frequency/反應頻率	DC: 600Hz					
Hysteresis/磁帶	10% of ≤ sensing distance					
Operating voltage/工作電壓	DC: 12~24VDC 10%					
Current consumption/消耗電流	DC: <8mA No-load					
Load current/負載電流	DC: 30V 200mA Max					
Leakage current/漏電流	DC: 1.1mA No-load					
Residual voltage/殘餘電壓	DC: <1.5VDC No-load					
Operating temperature/工作溫度範圍	-20°C ~ +70°C					
Material/外觀材質	ABS					
Wiring method/出線方式	Φ4×2M/3-wires					
Protection degree/防水等級	IP66					

Dimensions/外形尺寸圖 (單位: mm)



Wiring schemes/接線圖

