

TOF Miniature Photo Sensor

TOF方形光電開關

Characteristic / 特點：

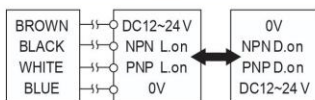
- 0 ~ 10V / 0 ~ 20 mA linear output.
/ 0 ~ 10V / 0 ~ 20 mA 線性輸出。
- Compact size (W12xH31xD20mm), space saving.
/ 尺寸輕巧(W12xH31xD20mm)，省空間。
- 1 Pnt, one point auto-teaching.
/ 1Pnt 單點設定自動教導功能。
- Suppression of the difference between colors of detecting objectives.
/ 不分顏色檢測。



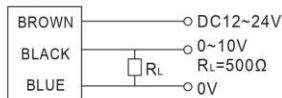
Model / 型號	PK3-DU150NP	PK3-DU150LV	PK3-DU150LA
	-	PK3-DU150LVB	PK3-DU150LAB
Sensing type / 檢出方式	Diffuse reflection / 擴散反射式		
Sensing distance / 檢出距離	3 ~ 150 cm White paper (白畫紙) 20 x 20 cm	5 ~ 150 cm White paper (白畫紙) 20 x 20 cm	
Operating voltage / 工作電壓	DC12 ~ 24 V ± 10%		
Current Consumption / 消耗電流	35 mA Max.	80 mA Max.	
Output type / 輸出模式	NPN L.on/ D.on PNP L.on/ D.on	0 ~ 10V 線性輸出	0 ~ 20 mA 線性輸出
Emitting light / 發光源	940nm VCSEL Class		
Response Frequency / 反應頻率	15 Hz		
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 ~ + 60 °C (No freezing allowed 不可結霜，結冰)		
Ambient humidity / 工作溼度	35% ~ 85% RH		
Protection degree / 防水等級	IP64		
Option / 選購配件	Connector / 接頭線： M84R-2M-PVC / M84RL-2M PVC		
Material / 外觀材質	PC		
Wiring method / 出線方式	PK3-DU150NP_LV_LA	NP : Pre-wired Ø4.2 x 2 M / 4-wires LV / LA : Pre-wired Ø4.2 x 2 M / 3-wires	
Weight / 重量	PK3-DU150LVB_LAB	M8 pigtailed connector type	
	PK3-DU150NP_LV_LA	60g	
	PK3-DU150LVB_LAB	20g	
Wiring diagrams / 接線圖		Dimensions / 尺寸圖 (mm)	

Wiring diagrams / 接線圖

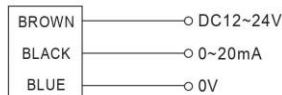
NP 輸出



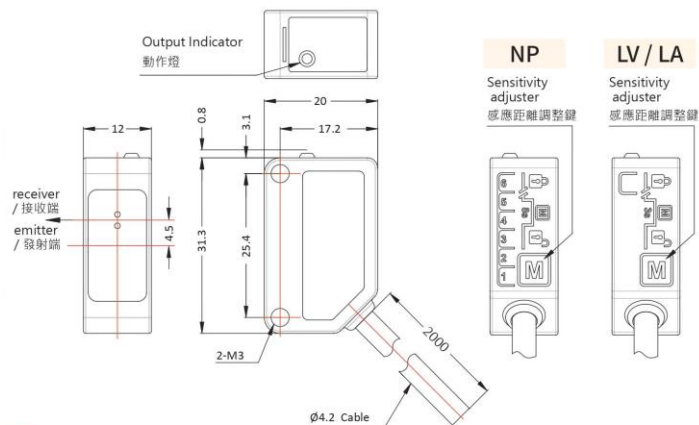
LV 輸出



LA 輸出



Dimensions / 尺寸圖 (mm)



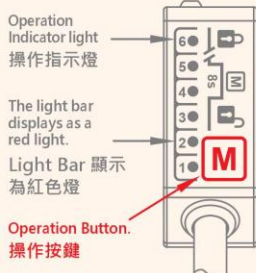
- Long-range detection, color differences may be affected by the target material!
/ 遠距離檢測，顏色差異會受目標材質影響！

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PK3-DU150 Touch panel UI operation mode / 觸控版 UI 操作方式：

PK3-DU150 NP



- Power On (Lock upon startup) :
通電開機 (開機即上鎖) :
- (Locked) Invalid touch:
Flash green light **once**.
(未解鎖) 無效觸控 :
閃爍**1次**綠燈

PK3-DU150 LV / LA



step 1 Unlock 解鎖



- ✗ Unlocking invalid if pressed longer than 10 seconds after unlocking.
解鎖後，若仍長壓超過10秒，屬無效解鎖

- Auto-Lock: 30 Seconds without operation.
自動上鎖：30秒未操作
- Manual Lock: Press [M] once and then long press [M] for 8 seconds.
手動上鎖：壓 [M] 1次+長壓 [M] 8秒
- ✓ Locking successful: No. 6 Green light constant on for 5 seconds.
上鎖成功：6號綠燈恆亮5秒
- ✗ Locking failed: No. 6 Green light constant flash for 5 seconds.
上鎖失敗：6號綠燈閃爍5秒

step 2 One-touch Teaching 一鍵教導



- ✓ Teaching complete, green light and lightbar flash 3 times.
教導完成，綠燈及Lightbar燈閃爍3次

- Fine-Tune Distance :
Press [M] once sensitivity +1 (4mm)
微調距離：短壓 [M] 靈敏度+1 (4mm)
- ✓ The longer the detection distance, the more lights, green light flashes 3 times with each setting.
檢距愈長，燈號愈多，每設定一次，綠燈會閃爍3次

step 1 Unlock 解鎖



- ✗ After unlocking, if continuously pressed for more than 10 seconds, it is considered an invalid unlock.
解鎖後，若仍長壓超過10秒，屬無效解鎖

- Auto lock: No operation for 30 seconds.
自動上鎖：30秒未操作
- Manual lock: Press [M] once and then long press [M] for 3 seconds.
手動上鎖：壓 [M] 1次+長壓 [M] 3秒
- ✓ Locking successful: The green light flashes 6 times.
上鎖成功：綠燈閃爍6次
- ✗ Locking failed: The green light flashes for 5 seconds.
上鎖失敗：綠燈閃爍5秒

step 2 One-touch Teaching 一鍵教導



- ✓ Teaching complete, green light flashes quickly 3 times.
教導完成，綠燈快速閃爍3次

PK3

方形光電開關

RX

SPR

PK5

MK6

PM6

PK3

LK3

SU18

SU07

SU30

RMF

LRS

R1JK

R3JK

OAP

ASP