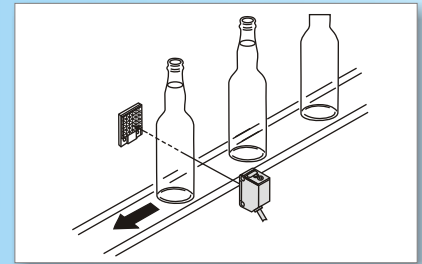
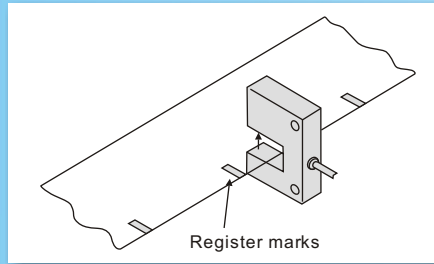
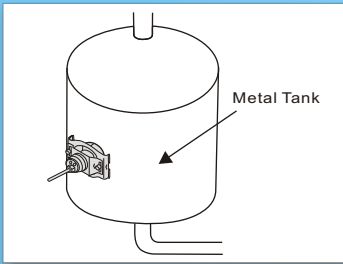
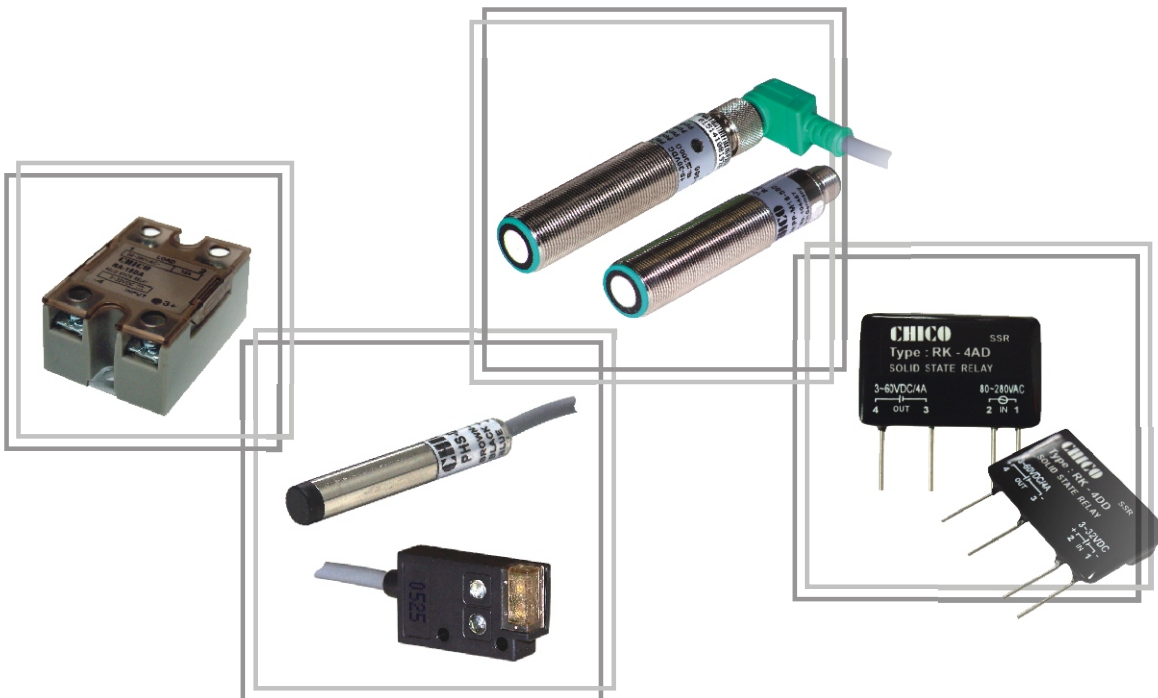


## Photo & Proximity Sensor



## SSR & Ultrasonic Sensor



### 特點

- Extensive operating voltage 12 ~ 250V AC / DC.
- Longer sensing distance  
Thru beam type: 30m.  
Mirror reflex type: 8m.
- High compact structure IP-66.
- Multi-protection circuit Burst test over 2KV.



### 規格

Specification	規格	Data
Operating voltage	工作電壓	12 ~ 250V AC/DC
Current consumption	消耗電流	2VA max.
Output method	輸出方式	Relay (1c)
Contact rated	接點額定電流	1A / 250VAC ; 2A / 30VDC (Resistance load)
Life of relay	繼電器壽命	Electronic : 10 <sup>6</sup> times ; Mechanic : 10 <sup>9</sup> times
Response time	應答時間	10 ms max.
Illumination	耐外亂光	Lamplight < 10000 Lux ; Sunlight < 30000 Lux
Connection method	出線方式	5c / 6 2m cable ; oil proof
Insulation resistance	絕緣阻抗	100M / 500VDC
Dielectric strength	電介強度	2.5KV / 1minute min.
Vibration resistance	耐震動	10 ~ 55Hz / 1.5mm, 2 hours in XYZ direction
Housing material	外殼材質	Intensive ABS
Protection class	保護等級	IP 66
Operating circumstance	使用環境	-20 ~ +60 ; 35% ~ 85% RH

Kind	款式	Reflex type / 擴散反射型				Mirror reflex type / 鏡片反射型			
		Standard / 標準		Timer		Standard / 標準		Timer	
Type	型號	PM-D60A	PM-D60A2	PM-D60AT	PM-D60A2T	PM-R800A	PM-R800A2	PM-R800AT	PM-R800A2T
Output status	輸出狀態	NO	NC	NO	NC	NO	NC	NO	NC
Output delay	輸出延遲	Without		Off delay (0 ~ 1 sec adjustable)		Without		On delay (0 ~ 1 sec adjustable)	
Emitter	發射光源	Infrared LED							
Sensing distance	檢測距離	60.0cm				8.0 m			
Hysteresis	復歸應差	20% of sensing distance max.				-			
Sensible object	最小檢測物	10 min.							
Sensitivity adjuster	感度調整	270 ƒtrimmer				non			

Kind	款式	Polarized mirror type / 偏光式鏡片反射型			
		Standard / 標準		Timer	
Type	型號	PM-R600A	PM-R600A2	PM-R600AT	PM-R600A2T
Output status	輸出狀態	NO	NC	NO	NC
Output delay	輸出延遲	Without		On delay (0 ~ 1 sec adjustable)	
Emitter	發射光源	Red LED			
Sensing distance	檢測距離	6.0 m			
Sensible object	最小檢測物	10 min.			
Sensitivity adjuster	感度調整	non			

Kind	款式	Thru beam type / 透過型					
		Standard / 標準				Timer	
Type	型號	PM-T12MA	PM-T12MA2	PM-T32MA	PM-T32MA2	PM-T32MAT	PM-T32MA2T
Output status	輸出狀態	NO	NC	NO	NC	NO	NC
Output delay	輸出延遲	non		non		On delay (0 ~ 1 sec adjustable)	
Sensing distance	檢測距離	12.0 m		32.0 m		32.0 m	
Sensible object	最小檢測物	10 min.		20 min.		20 min.	
Sensitivity adjuster	感度調整	non					

### 特點

- Extensive operating voltage DC 12 ~ 240V or AC 24 ~ 240V.
- High capacity relay output 3A / 250VAC.
- High compact structure IP-65.
- Multi surge killer circuit effectively protects from surge damage.



### 規格

Type	PA-D100A	PA-D200A	PA-D300A	PA-R400A	PA-T10MA	PA-T20MA	PA-T100MA
Description	Diffuse reflection			Retro reflection	Through beam		
Sensing distance	100cm	200cm	300cm	400cm	10m	20m	100m
Operating voltage	12 ~ 240VDC ; 24 ~ 240 VAC , 50/60Hz						
Current consumption	2VA max.						
Output method	Relay						
Contact current	3A / 250 VAC						
Response time	15 ms						
Connection method	5 Cores / 6.0 x 2m						
Noise resistance	1500Vp - p / 1 μs						
Operating temp./ hum.	-20 ~ +60 ; 35% ~ 85% RH						
Protection degree	IP 65						
Housing material	Case : Intensive ABS ; Lens : PC						
Weight	Appr.145g				Appr.285g		

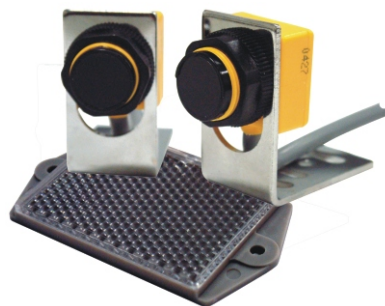
## UTRA Short M18 Photo Sensor 超短型 M18光電開關

### 特點

- UTRA short body length : 30mm only.
- UTRA long setting distance : Thru beam 30.0m.
- Two way output : NPN & PNP.
- High solid compact construction : IP-67.
- Output short circuit protection.

### 應用

- Car washing machine or conveyer.



### 規格

Type	Diffuse reflex		Mirror reflex		Thru beam	
	PS-D15N	PS-D15N2	PS-R300N	PS-R300N2	PS-T30MN	PS-T30MN2
Output status	NO	NC	NO	NC	NO	NC
Sensing distance	15cm		3m		30m	
Operating current	20 mA		20 mA		Tx < 20 mA ; Rx < 15 mA	
Response time	1 ms				5 ms	
Sens. adjuster	270 ° Trimmer		Non			
Operating voltage	10 ~ 30VDC ; Ripple < 20% OF P-P					
Output method	NPN & PNP, Two way output					
Output current	150mA Max.					
Residual voltage	0.8V Max.					
Leakage current	0.8mA Max.					
Protection circuit	Short circuit & Polarity reversed protection					
Hysteresis	20% of sensing distance Max.					
Illumination	Lamplight < 10000 Lux ; Sunlight < 20000Lux					
Lead wire	4c / 5.0 x 2m					
Housing material	Intensive ABS					
OP. Circumstance	-20 ~ +60 ; 35% ~ 85% RH					
Protection degree	IP 67					

### 特點

- Open collector output allows a wide range of applications, such as direct relay drive and PLC input.
- Both NPN & PNP NO open collector output models are together.
- High performance with low cost and easy to use.
- Quick delivery and variety selection.
- Waterproof protection and vibration/shock resistant structure is created by resin-filled metal package, greatly improving the environmental protection.



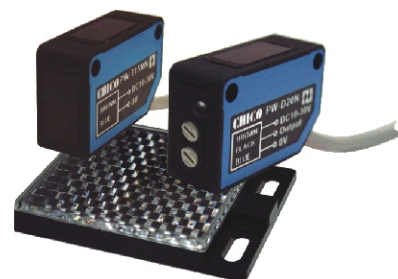
### 規格

Type	PK-D30N	PK-R200N	PK-T600N
Description	Diffuse reflection	Retro reflection	Through beam
Sensing distance	30cm	2m	6m
Current consumption	30mA	30mA	45mA
Output method	NPN & PNP two way, open collector NO		
Illumination	Sunlight <10,000 Lux.; Lamplight <5,000 Lux.		
Operating voltage	10 ~ 30VDC; Ripple<20% of peak to peak		
Output current	150mA Max.		
Response time	2ms Max.		
Hysteresis	10% of sensing distance Max.		
Operating temp./ hum.	-20 ~ +60 ; 35% ~85% RH		
Circuit protection	Short circuit & Polarity reverse protection		
Emitter	Infrared LED		
Sensitivity adjuster	270 ° trimmer		
Housing material	Case : PBT, Lens : PC, Cable : 4 cores /5 x 2m		
Protection degree	IP 65		
Weight	78g	78g	180g

# Mini & Large Scanning Range Photo Sensor 小型長距離光電開關

### 特點

- The PW is a complete photoelectric switch series in miniature housing and provides large scanning ranges at an economical price.
- LED signal strength indicator orange : switching output active.
- Sensitivity adjustment (270 °).
- Light / dark rotary switch.



### 規格

Type	PW-D20N	PW-D90N	PW-R600N	PW-T15MN
Scanning distance, max. typical	200mm	900mm	6m	15m
Light source, light type	LED, visible red light	LED, visible red light	LED, visible red light with polarizing filter	LED, visible red light
Housing material	Housing:ABS; Optic:PC	Housing:ABS; Optic:PC	Housing:ABS; Optic:PMMA	Housing:ABS; Optic:PC
Connection types	PVC, 2m; 3x 0.18mm, 4mm			PVC, 2m; 2 x 0.18mm, 4mm PVC, 2m; 3 x 0.18mm, 4mm
Current consumption	30 mA			sender / receiver: 15 mA / 20 mA
Enclosure rating	IP 65			
Circuit protection	Output over current protection and short current protection, Reverse polarity protection			
Sensitivity, adjustable	270 ° trimmer			
Supply voltage Vs	10 ~ 30 VDC			
Ripple	± 10%			
Switching outputs	NPN, open collector			
Switching mode, adjustable	Light / dark switching via rotary switch			
Output current I max.	100mA			
Response time	0.5 ms			
Max. Switching frequency	1000/s			
Ambient operation temperature	-25 ~ +55			

特點

- Solid compact structure 12x30x17(WxHxD mm).
- Protection class : IP-66.
- NO/NC changeable.
- Wide operating voltage range  
10 ~ 30 VDC.



規格

Type	型號	Diffuse reflex		Mirror reflex		Thru beam
		PSM-D10N	PSM-D30N	PSM-R120N	PSM-R200N	PSM-T400N
Sensing distance	檢測距離	10 cm	30 cm	1.2 m	2 m	4 m
Emitter	發射光源	Infrared LED		Red LED		Infrared LED
Hysteresis	應差	20% of sensing distance Max.				
Response time	應答時間	1ms Max.				
Operating voltage	工作電壓	10 ~ 30VDC				
Ripple of power	電壓漣波	20% peak to peak				
Current consumption	耗電流	25mA Max.				
Pilot LED	指示燈	Green : Power pilot ; Yellow : Operating pilot				
Output method	輸出方式	NPN open collector				
Output status	輸出狀態	NO or NC selectable				
Output current	輸出電流	150mA Max.				
Residual voltage	殘留電壓	0.1V Max.				
Leakage current	洩漏電流	0.8mA Max.				
Protection circuit	保護電路	Short circuit & polarity reversed protection				
Lead wire	出線長度	4c / 4.0 x 2m				
Dielectric strength	耐壓強度	1kv / 1 minute Min.				
Insulation strength	絕緣強度	100M / 500VDC				
Op. circumstance	工作環境	-20 ~ +80 ; 35% ~ 85% RH				

特點

- Limited distance reflex type.
- Mini-plate outline.
- Protection class : IP-65.
- Mirror interruption immunized  
PSX-D03N less than 100mm  
PSX-D07N less than 200mm



規格

Type	型號	Limited distance reflex	
		PSX-D03N	PSX-D07N
Sensing distance	檢測距離	3 cm	7 cm
Emitter	發射光源	Red LED	Infrared LED
Hysteresis	應差	20% of sensing distance Max.	
Response time	應答時間	1ms Max.	
Operating voltage	工作電壓	10 ~ 30VDC	
Ripple of power	電壓漣波	20% peak to peak	
Current consumption	耗電流	15mA Max.	
Pilot LED	指示燈	Green : Power pilot ; Yellow : Operating pilot	
Output method	輸出方式	NPN open collector	
Output status	輸出狀態	NO	
Output current	輸出電流	150mA Max.	
Residual voltage	殘留電壓	0.1V Max.	
Leakage current	洩漏電流	0.8mA Max.	
Illumination	耐外亂光	Sunlight < 20000 Lux ; Lamplight < 5000 Lux	
Protection circuit	保護電路	Short circuit & polarity reversed protection	
Lead wire	出線長度	3c / 3.0 x 3m	
Dielectric strength	耐壓強度	1kv / 1 minute Min.	
Insulation strength	絕緣強度	100M / 500VDC	
Op. circumstance	工作環境	-20 ~ +80 ; 35% ~ 85% RH	

特點

- Easy to set the sensitivity.
- Easy to detect the red or green mark.
- Detecting the mark more stable.
- Dark on / Light on : changeable.
- NPN / PNP two output.
- High reliability.



規格

Type	型號	Lead Wire		M12 Connector	
		PR-D25K	PR-D25K-H	PR-D25K-M12	PR-D25K-H-M12
Setting distance	設定距離	25.0 ± 2.0mm			
Emitter	發光源	White Light Led 白光			
Light spot	光點	2.0			
Response time	應答時間	0.2 ms	0.1 ms	0.2 ms	0.1 ms
Illumination	耐外亂光	Lamp light < 5000 Lux ; Sunlight < 10000 Lux			
Operating voltage	工作電壓	10 ~ 30VDC ; Ripple < 20% OF P-P			
Current consumption	耗電流	40mA Max.			
Output method	輸出方式	NPN & PNP, Two way output			
Output status	輸出狀態	NO or NC changeable			
Output current	輸出電流	150.0mA Max.			
Leakage current	漏電流	0.8mA			
Residual voltage	殘留電壓	0.8V			
Protection circuit	保護電路	Short circuit & Polarity reversed protection			
Connection method	接線方式	4 c 5.0 x 2m		M12 Connector	
Housing material	外殼材質	Intensive PBT			
Protection class	保護等級	IP 65			
Circumstance	工作環境	-20 ~ +60 ; 35% ~ 85% RH			

Type M18 Tubular 90° Wire Photo Sensor 九十度線光電開關

特點

- High performance with low cost.
- Both NO & NC NPN open collector output models are together.
- Quick delivery and variety selection.
- Easy to use.
- Variety selection.
- International standard.
- Metal and plastic housing.

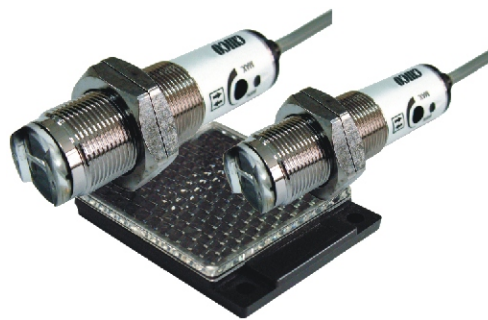


規格

Type	PI-D40-N	PI-R200-N	PI-T800-N
Description	Diffuse reflection	Retro reflection	Through beam
Sensing distance	40cm	2m	8m
Current consumption	30mA	30mA	40mA
Supply Voltage	DC10 ~ 30V ± 20%, ripple(P--P) : 10%Max		
Max. output current	100mA Max		
Response time	Less than 3.0ms(ON+OFF)		
Switching frequency	333 per secondary		
Circuit Protection	1. Output over current protection 2. Reverse-polarity protected 3. Interference suppression		
Output type	NPN or PNP open collector		
Indicator	Yellow LED on, when light is received		
Ambient temperature	-25 ~ +55		
Protection degree	IP 66		
Adjustable sensitivity	YES, by potentiometer		
Extraneous light immunity	Lamp light : 3000Lux ; Sunlight : 10000Lux Max		
Cable	Length : 2m, Material : PVC, Color : Gray		

特點

- Open collector output allows a wide range of applications, such as direct relay drive and PLC input.
- Both NO & NC NPN open collector output models are together.
- High performance with low cost and easy to use.
- Quick delivery and variety selection.
- Waterproof protection and vibration/shock resistant structure is created by resin-filled metal package, greatly improving the environmental protection.



規格

Type	PH-D40-N	PH-R200-N	PH-T800-N
Description	Diffuse reflection	Retro reflection	Through beam
Sensing distance	40cm	2m	8m
Current consumption	30mA	30mA	40mA
Output method	NPN open collector NO/NC		
Operating mode	Light-ON / Dark-ON selectable by control cable (Gray)		
Operating voltage	DC 12 ~ 24V ± 20%		
Output current	100mA Max.		
Response time	Less than 0.5ms		
Switching frequency	1KHz		
Operating temperature	-25 ~ +55		
Circuit protection	Output over current protection, Reverse polarity protection		
Indicator	Red LED on, when light is received		
Adjustable sensitivity	YES, by potentiometer		
Cable	Length : 2m, Material : PVC, Color : Gray		
Protection degree	IP 66		
Weight	130g	150g	250g

特點

- Open collector output allows a wide range of applications, such as direct relay drive and PLC input.
- Incorporating a 12 turns potentiometer enables a broad sensitivity setting.
- Both NO & NC and NPN, PNP, open collector output models are together.
- Light / Dark Selectable.



規格

Type	PF-D30-K	PF-R200-K	PF-T500-K
Description	Diffuse reflection	Retro reflection	Through beam
Sensing distance	30cm	2m	5m
Beam deviation	—	30°	7°
Current consumption	30mA	20mA	Trns : 25mA Rcvr : 15mA
Hysteresis	10% of sensing distance	—	—
Wiring method	4 x 2M / 4 cores		Trns : 4 x 2M / 2 cores Rcvr : 4 x 2M / 4 cores
Output method	NPN & PNP two way, open collector NO & NC		
Operating voltage	10 ~ 30VDC		
Output current	30VDC 100mA Max.		
Operating temperature	-20 ~ +60		
Protection degree	IP 66		

## 特點

- Solid compact structure  
- 7 x 43mm
- Protection class : IP-67
- High reliability  
- Output short circuit protection  
- High noise resistance



## 規格

Outline	外 型	7
Type	型 號	PHS-D03N Reflex type
Sensing distance	檢測距離	3 cm
Emitter	發射光源	Infrared LED
Hysteresis	應 差	20% of sensing distance Max.
Response time	應答時間	1ms Max.
Operating voltage	工作電壓	10 ~ 30VDC
Ripple of power	電壓漣波	20% peak to peak
Current consumption	耗 電 流	15mA Max.
Pilot LED	指 示 燈	Green : Power pilot ; Yellow : Operating pilot
Output method	輸出方式	NPN open collector
Output status	輸出狀態	NO
Output current	輸出電流	150mA Max.
Residual voltage	殘留電壓	0.1V Max.
Leakage current	洩漏電流	0.8mA Max.
Protection circuit	保護電路	Short circuit & polarity reversed protection
Lead wire	出線長度	3c / 3.0 x 3M
Dielectric strength	耐壓強度	1kv / 1 minute Min.
Insulation strength	絕緣強度	100M / 500VDC
Op. circumstance	工作環境	-20 ~ +80 ; 35% ~ 85% RH
Protection class	保護等級	IP 67

## M8 Tubular Type Photo Sensor M8圓型光電開關

## 特點

- Solid compact structure  
- M8 x 43mm
- Protection class : IP-67
- High reliability  
- Output short circuit protection  
- High noise resistance



## 規格

Outline	外 型	M8
Type	型 號	PHM-D03N Reflex type
Sensing distance	檢測距離	3 cm
Emitter	發射光源	Infrared LED
Hysteresis	應 差	20% of sensing distance Max.
Response time	應答時間	1ms Max.
Operating voltage	工作電壓	10 ~ 30VDC
Ripple of power	電壓漣波	20% peak to peak
Current consumption	耗 電 流	15mA Max.
Pilot LED	指 示 燈	Green : Power pilot ; Yellow : Operating pilot
Output method	輸出方式	NPN open collector
Output status	輸出狀態	NO
Output current	輸出電流	150mA Max.
Residual voltage	殘留電壓	0.1V Max.
Leakage current	洩漏電流	0.8mA Max.
Protection circuit	保護電路	Short circuit & polarity reversed protection
Lead wire	出線長度	3c / 3.0 x 3M
Dielectric strength	耐壓強度	1kv / 1 minute Min.
Insulation strength	絕緣強度	100M / 500VDC
Op. circumstance	工作環境	-20 ~ +80 ; 35% ~ 85% RH
Protection class	保護等級	IP 67



特點

- Open collector output allows a wide range of applications, such as direct relay drive and P.L.C. input.
- Multiple output model (NO&NC and NPN&PNP open collector).
- Light converges to spot diameter of 2mm.
- ABS housing. Resin inside. Protection from oil, water, acid, and alkaline.



規格

Type	PO-Q36-K
Output method	NPN.NO / NC PNP.NO / NC
Scan distance	36mm
Light-emitting diode	IR LED (DC-ring type)
Detectable objector	5mm Min
Operating voltage	10 ~ 30VDC
Current Consumption	40 mA
Output Current	30 VDC 100mA Max
Operating Temperature	-25 ~ +60
Wiring method	Trns : 4 x 2M / 4 cores
Protection degree	IP 64
Recommended power unit	PT-R1, PT-R2, PT-R1T, PT-R2T

U Type Mark Sensor U型標誌光電開關

特點

- High speed response frequency : 1KHz.
- High stability & reliability.
- Lost cost & high quality.
- NPN & PNP two output.
- Wide operating voltage range 10 ~ 30 VDC.



規格

Type	PU-M07G	PU-M07R	PU-M07X
	Mark Sensor		Label Sensor
Sensible object	Transparent object		Semi-Transparent
Emitter	Green Light	Red Light	Infrared LED
Response frequency	1KHz		
Sensitivity adjuster	270 ° Trimmer		
Min. sensible object	2.0		
Output method	NPN & PNP two way, open collector NO		
Operating voltage	10 ~ 30VDC, Ripple < 20% P-P		
Current consumption	30 mA max.		
Output current	150 mA max.		
Illumination	Camplight < 5000 Lux, Sunlight < 10000 Lux		
Housing material	Intensive ABS		
Operating Temp./ Hum.	-20 ~ +70 , 35% ~ 85% RH		
Protection	IP 65		

## 特點

- NPN NO / NC, PNP NO, NPN A / B open collector.
- Wide vane 10mm.
- High-speed response  
1KHz(DC-light type) / 2KHz.
- High-accuracy detection  
1.00mm slit width.



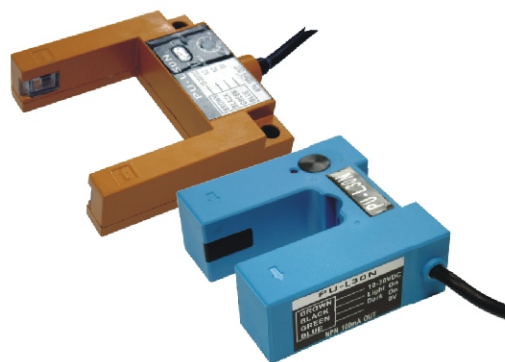
## 規格

Type	PU-10N	PU-10P	PU-10AB
Output type	NPN NO / NC	PNP NO	NPN A / B
Detecting distance	10mm		
Detectable object	Opaque (0.5 x 2.0)		—
Detecting width	—		4mm
Light-Emitting diode	Infrared LED (DC-light type)		
Supply voltage	10 ~ 28VDC		10 ~ 24VDC
Current consumption	20mA Max		
Response time	1KHz		2KHz
Ambient light resistance	Incandescent Lamp : 1,000 Lux Max		
Operating temperature	-10 ~ +55		
Ambient operating humidity	45 ~ 85% RH (With on condensation)		
Insulation resistance	20M (DC500V)		
Degree of protection	IP 64		
Housing	Polycarbonate		
Cable	Pre Wired (2M)		

# For Lift U Type Photoelectric Switch Sensor U型光電開關

## 特點

- Safe, reliable and highly sensitive potential installation types.
- Waterproof type (IP-67); high air-tightness and resistance against oil corrosion.
- Excellent resistance against external internal and interference of light.

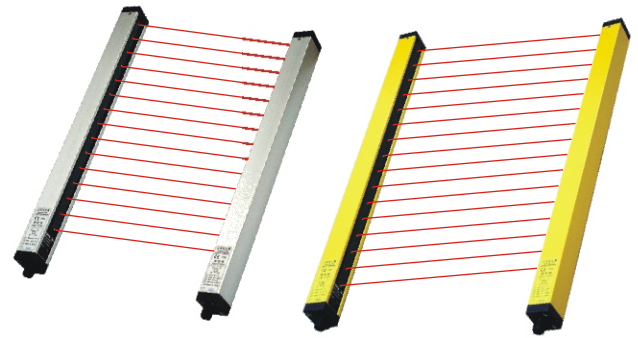


## 規格

Type	PU-L30N	PU-L30A	PU-L50N	PU-L50P
Output method	NPN	Relay output	NPN	PNP
Detecting distance	30mm	30mm	50mm	50mm
Voltage range	10 ~ 30 VDC	24 VAC	10 ~ 30 VDC	
Response frequency	200Hz max.	25Hz max.	250Hz max.	
Object	10 min.(Opaque materials)		3 min.(Opaque materials)	
Load current	200mA max.	AC 250V 0.5A	100mA max.	
Current consumption	40 mA max.			
External interference light	Incand. Lamp : 3000 Lux max. ; Sunlight : 10000 Lux max.			
Ambient Temp./ Hum.	-25 ~ 55 ; 45% ~ 85%RH			
Insulation resistance	Min 20M (500VDC megger)			
Insulation strength	1000VAC 50/60Hz / minute.			
Vibration	10 ~ 50Hz double amplitude 1.5mm, 2 Hours along each of X. Y. Z. axes.			
Shock	490m/s <sup>2</sup> (50gm) 3 times along each of X. Y. Z. axes.			
Protection degree	IP 67			
Housing materials	PBT materials		Zinc die cast/ Yellow	
Weight	About 230g	About 260g	About 270g	

特點

- Light pitch :  
PN-25 : 25mm / PN-40 : 40mm.
- Min. Sensible object :  
PN-25 : 30 / PN-40 : 45 .
- Two way output : NPN NO & PNP NC.
- High stability & reliability.
- Output short circuit protection.



規格

Type	PN-25								
	PN-25-08	PN-25-12	PN-25-16	PN-25-24	PN-25-32	PN-25-40	PN-25-48	PN-25-56	PN-25-64
Beams	8	12	16	24	32	40	48	56	64
Sensing height	180mm	280mm	380mm	580mm	780mm	980mm	1180mm	1380mm	1580mm
Beam pitch	25mm								
Setting distance	0.5m ~ 5.0m								
Sensible object	Min opaque object: 30								
Operating voltage	24 ± 20%VDC ; Ripple ± 20% P-PMax.								
Current consumption	60mA / 8 Beams Max.								
Output method	NPN NO & NPN NC, Two way output								
Output current	100mA Max.								
Output status	All light channellight no								
Protection circuit	Short circuit & polarity reversed protection								
Residual voltage	0.8V Max.								
Leakage current	0.8mA Max.								
Indicator	Yellow: Power ; Green : Clearcondition ; Red: Break								
Response time	10ms Max.								
Reset time	Output reset time < 200ms								
Illumination	Lamp < 10000 Lux ; Sunlight < 20000Lux								
Protection degree	IP 65								
Connection method	M12 x 1.0 Connector								
Housing material	Housing : Aluminum ; End cap : PBT ; Front cover : Acrylic								
Circumstance	0 ~ 50 ; 25% ~ 85% RH								
Vibration resistance	10 ~ 55Hz / 1.5mm ; 2 hours along each of X.Y.Z.								

Type	PN-40								
	PN-40-04	PN-40-08	PN-40-12	PN-40-16	PN-40-20	PN-40-24	PN-40-28	PN-40-32	PN-40-36
Beams	4	8	12	16	20	24	28	32	36
Sensing height	120mm	280mm	440mm	600mm	760mm	920mm	1080mm	1240mm	1400mm
Beam pitch	40mm								
Setting distance	0.5m ~ 5.0m								
Sensible object	Min opaque object: 45								
Operating voltage	24 ± 20%VDC ; Ripple ± 20% P-PMax.								
Current consumption	60mA / 8 Beams Max.								
Output method	NPN NO & NPN NC, Two way output								
Output current	100mA Max.								
Output status	All light channellight no								
Protection circuit	Short circuit & polarity reversed protection								
Residual voltage	0.8V Max.								
Leakage current	0.8mA Max.								
Indicator	Yellow: Power ; Green : Clearcondition ; Red: Break								
Response time	10ms Max.								
Reset time	Output reset time < 200ms								
Illumination	Lamp < 10000 Lux ; Sunlight < 20000Lux								
Protection degree	IP 65								
Connection method	M12 x 1.0 Connector								
Housing material	Housing : Aluminum ; End cap : PBT ; Front cover : Acrylic								
Circumstance	0 ~ 50 ; 25% ~ 85% RH								
Vibration resistance	10 ~ 55Hz / 1.5mm ; 2 hours along each of X.Y.Z.								

特點

- The sensing distance is from 1mm to 15mm.
- M8, M12, M18 and M30 cylindrical housing.
- Wide operating voltage range 10 ~ 30 VDC.
- All models have easy to identify operator indicator.
- M12, M18 and M30 models are protected against short circuit and polarity reversal and inductive loads.



規格

Type		PX-C08		PX-C12		PX-C18		PX-C30	
Output Method	NPN.NO	PX-C0801-N	PX-C0802-N	PX-C1202-N	PX-C1204-N	PX-C1805-N	PX-C1808-N	PX-C3010-N	PX-C3015-N
	NPN.NC	PX-C0801-N2	PX-C0802-N2	PX-C1202-N2	PX-C1204-N2	PX-C1805-N2	PX-C1808-N2	PX-C3010-N2	PX-C3015-N2
	PNP.NO	PX-C0801-P	PX-C0802-P	PX-C1202-P	PX-C1204-P	PX-C1805-P	PX-C1808-P	PX-C3010-P	PX-C3015-P
	PNP.NC	PX-C0801-P2	PX-C0802-P2	PX-C1202-P2	PX-C1204-P2	PX-C1805-P2	PX-C1808-P2	PX-C3010-P2	PX-C3015-P2
	NPN.NO / NC PNP.NO / NC	-	-	PX-C1202-K	PX-C1204-K	PX-C1805-K	PX-C1808-K	PX-C3010-K	PX-C3015-K
	SCR.NO SCR.NC	-	-	PX-C1202-A	PX-C1204-A	PX-C1805-A	PX-C1808-A	PX-C3010-A	PX-C3015-A
Mounting mode		Shielded	Unshielded	Shielded	Unshielded	Shielded	Unshielded	Shielded	Unshielded
Description		Standard M8mm		Standard M12mm		Standard M18mm		Standard M30mm	
Hysteresis		10% of sensing distance							
Sensing distance		1 mm	2 mm	2 mm	4 mm	5 mm	8 mm	10 mm	15 mm
Standard sensing object		Iron 8 x 8 x 1mm		Iron 12 x 12 x 1mm		Iron 18 x 18 x 1mm		Iron 30 x 30 x 1mm	
Operating voltage		DC : 10 ~ 30 V / AC : 90 ~ 260V							
Current consumption		DC : 8 mA no-load / AC : 2 mA Max.							
Output current		DC : 30V 100mA Max. / AC : 5 ~ 300 mA Max.							
Leakage current		1.1 mA no-load							
Residual voltage		1.5 VDC							
Operating temperature		-25 ~ +60							
Wiring method		3 x 2M / 3 cores		DC : 4 x 2M / 3 cores AC : 4 x 2M / 2 cores K : 4 x 2M / 4 cores		DC : 5 x 2M / 3 cores / AC : 5 x 2M / 2 cores K : 5 x 2M / 4 cores			
Degree of protection		IP 66							

Long Distance Proximity Sensor 長距離近接開關

特點

- The sensing distance is from 3mm to 40mm.
- M8, M12, M18 and M30 cylindrical housing.
- Wide operating voltage range 10 ~ 30 VDC.
- All models have easy to identify operator indicator.



規格

Type		PX-L08		PX-L12		PX-L18		PX-L30	
Output method	NPN.NO	PX-L0803-N	PX-L0806-N	PX-L1206-N	PX-L1210-N	PX-L1812-N	PX-L1820-N	PX-L3022-N	PX-L3040-N
	PNP.NO	PX-L0803-P	PX-L0806-P	PX-L1206-P	PX-L1210-P	PX-L1812-P	PX-L1820-P	PX-L3022-P	PX-L3040-P
Sensing distance		3 mm	6 mm	6 mm	10 mm	12 mm	20 mm	22 mm	40 mm
Response time on / off		0.1ms / 0.1ms		0.2ms / 0.2ms		0.5ms / 0.5ms		1ms / 1ms	
Switching frequency		1KHz		500Hz		300Hz		100Hz	
Supply voltage		10 ~ 30VDC							
Max. Load current		200mA							
Voltage drop		< 2.0V							
Ripple		< 10%							
Leakage current		< 0.01mA				< 0.05mA			
No load current		< 10mA							
Switching hysteresis		< 15%							
Repeat accuracy		< 2.0%							
Temperature drift		< 10%							
Short circuit protection		Yes							
Time delay before availability		< 10ms							
Operating temperature		-25 ~ +70							
Degree of protection		IP 67							

特點

- DC type with short circuit protection and polarity reversed protection.
- AC type with surge absorbing circuit may avoid surge damaged.
- High solid compact structure IP-67 suited to be applied in the poor circumstance.
- All models with operation LED, easy to adjusted.



規格

Type		PX-M12		PX-M18	
Output method	NPN.NO	PX-M1202-N	PX-M1204-N	PX-M1805-N	PX-M1808-N
	NPN.NC	PX-M1202-N2	PX-M1204-N2	PX-M1805-N2	PX-M1808-N2
	PNP.NO	PX-M1202-P	PX-M1204-P	PX-M1805-P	PX-M1808-P
	PNP.NC	PX-M1202-P2	PX-M1204-P2	PX-M1805-P2	PX-M1808-P2
Sensing direction		2.0mm	4.0mm	5.0mm	8.0mm
Mounting method		Flushed	Non-flushed	Flushed	Non-flushed
Response frequency		2.5KHz		800Hz	
Operation voltage		10 ~ 30VDC			
Power ripple		< 20% of peak to peak			
Output current		150 mA max.			
Current consumption		< 10mA			
Residual voltage		< 0.1V			
Leakage current		< 0.8mA			
Hysteresis		< 10% of sensing distance			
Thermal drift		< 10 μm/c			
Voltage drift		< 1 μm/V			
Protection circuit		Short circuit & polarity reversed protection			
Operation Temp./ Hum.		-20 ~ +80 ; 35% ~ 95%RH			
Protection class		IP 67			
Wiring method		3 Cores / 4.2 x 2m			
Color of sensing face		NPN : Red; PNP : Green			

DC Two Wire Inductive Proximity Sensor 二線式近接開關

PX-W

特點

- High reliability with short circuit & polarity reversed protection circuit.
- Wide operation voltage range 10 ~ 30 VDC.
- Protection class : IP-67.
- Low leakage current : 0.8mA Max.



規格

Type	PX-W12		PX-W18		PX-W30	
	PX-W1202D	PX-W1204D	PX-W1805D	PX-W1808D	PX-W3010D	PX-W3015D
Mounting method	Flushed	Non-Flushed	Flushed	Non-Flushed	Flushed	Non-Flushed
Sensing distance	2mm	4mm	5mm	8mm	10mm	15mm
Max. Switching frequency	1KHz	800Hz	500Hz	400Hz	300Hz	150Hz
Supply voltage	10 ~ 30VDC					
Max. Load current	150mA			100mA		
Voltage drop	4.0V Max.			< 3.0V		
Hysteresis	10% of sensing distance Max.			< 15%		
Max. leakage current	0.8mA			< 0.01mA		
Short circuit protection	Yes					
Housing material	Cu plated Ni				Stainless steel or nickel plated brass	
Operating temperature	-20 ~ +70					
Degree of protection	IP 67					

特點

- PVC housing, resin inside, protection from oil, water, acid and alkaline.
- High quality, high durability.
- Wide operating voltage range 10 ~ 30 VDC.
- All models with the operating indicator easily identified.



規格

Type		PX-Q04	PX-Q05	PX-Q3010	PX-Q4020
Output Method	NPN.NO	PX-Q04-N	PX-Q05-N	PX-Q3010-N	PX-Q4020-N
	NPN.NC	PX-Q04-N2	PX-Q05-N2	PX-Q3010-N2	PX-Q4020-N2
	PNP.NO	PX-Q04-P	PX-Q05-P	PX-Q3010-P	PX-Q4020-P
	PNP.NC	PX-Q04-P2	PX-Q05-P2	PX-Q3010-P2	PX-Q4020-P2
	NPN.NO / NC PNP.NO / NC	-	-	PX-Q3010-K	PX-Q4020-K
Sensing direction		Vertical			
Hysteresis		10% of sensing distance			
Sensing distance		4mm	5mm	10mm	20mm
Response frequency		500Hz	500Hz	300Hz	50Hz
Recommended distance		0 to 3.2mm	0 to 4 mm	0 to 8 mm	0 to 16 mm
Standard sensing object		Iron 18 x 18 x 1mm	Iron 17 x 17 x 1mm	Iron 30 x 30 x 1mm	Iron 40 x 40 x 1mm
Operating voltage		10 ~ 30VDC			
Current consumption		8 mA no-load			
Output current		30 VDC 100mA Max.			
Leakage current		1.1 mA no-load			
Residual voltage		1.5 VDC			
Operating temperature		-25 ~ +60			
Wiring method		4 x 2M / 3 cores		5 x 2M / 3 cores / K	5 x 2M / 4 cores
Degree of protection		IP 66			

Infrared Non-Contact Thermocouple 非接觸紅外線熱電偶

特點

- 低價位的非接觸式紅外線測溫器。
- 具有極低的輸出阻抗，可以直接取代熱電偶偵測器。
- 可以偵測發熱且移動的物體。
- 偵測器符合 NEMA-4 標準。
- 可以承受 70 的工作環境溫度。
- 提供 K Type 熱電偶輸出或輸出 mV 的信號。



規格

型號	NT-K350	NT-K350-V	NT-K500	NT-K500-V
測溫範圍	0 ~ 350		30 ~ 500	
輸出信號	K Type 10mV/		K Type 10mV/	
精確度	6 ~ 115 : ± 2% 116 ~ 225 : ± 5% 226 ~ 350 : > ± 5%		30 ~ 99 : ± 5% 100 ~ 500 : ± 2%	
重覆性	± 1.0%			
解析度	< 0.5			
反應時間	350 mSec			
距離目標比	D : S = 4 : 1			
頻譜反應	7 ~ 18 μm			
放射率	固定 0.95			
電源	12 ~ 24 VDC / 20 mA			
輸出阻抗	50			
最低負載阻抗	50K			
環境等級	IP 65, NEMA 4			
操作溫度 / 相對溼度	0 ~ 70 / 10 ~ 95%RH			
接線	附有標準 0.9 公尺長的訊號及電源線			
尺寸 / 重量	19 mm x 89 mm / 130g			

特點

- Both NO & NC open collector output models are together.
- Incorporating a 12 turns potentiometer enables a broad sensitivity setting.
- All models have easy to identify operator indicator.
- Wide operating voltage range 10 ~ 30 VDC.



規格

Type	PC-C18				PC-C30		
	PC-C1810-N	PC-C1810-P	PC-C1820-N	PC-C1820-P	PC-C3030-N	PC-C3030-P	PC-C3015-A
Output method	NPN.NO / NC	PNP.NO / NC	NPN	PNP	NPN	PNP	AC NO
Description	Standard M18mm				M 30mm		
Response frequency	70Hz		100Hz		100Hz		25Hz
Sensing distance	1 ~ 10 mm		1 ~ 20 mm		30 mm		15 mm
Wiring method	4.4 x 2M / 4cores		4.4 x 2M / 3cores		5 x 2M / 4cores		2 cores
Operating voltage	10 ~ 30VDC						90 ~ 250VAC
Output current	100 mA Max.		150 mA Max.		150 mA Max.		200 mA
Standard sensing object	Conductor or electric-medium						With grounded metal 50x50x1t
Current consumption	8 mA no-load		20 mA		20 mA		3 mA
Leakage current	1.1 mA no-load		0.8 mA		0.8 mA		3 mA
Residual voltage	1.5VDC						Max. 35V
Operating temperature	-20 ~ +60						
Hysteresis	10% of sensing distance						
Degree of protection	IP 66						

特點

- M18, M30 cylindrical housing.
- The sensing distance is from 2mm to 30mm.
- Capacitive proximity sensors have a fourteen turn potentiometer.
- All models have easy to identify operator indicator.
- Wide operating voltage range 10 ~ 30 VDC.



規格

Type	PC-M18				PC-M30				
	PC-M1810-N	PC-M1810-P	PC-M1815-N	PC-M1815-P	PC-M3020-N	PC-M3020-P	PC-M3025-N	PC-M3025-P	PC-M3030-A
Output method	NPN.NO	PNP.NO	NPN.NO	PNP.NO	NPN.NO	PNP.NO	NPN.NO	PNP.NO	AC SCR
Sensing distance	2 ~ 8 mm		2 ~ 15 mm		2 ~ 20 mm		2 ~ 25 mm		30 mm
Supply voltage	10 ~ 30VDC								90 ~ 250VAC
Voltage drop	< 0.8VDC / 50mA, < 2VDC / 300mA								-
Max. Load current	300mA								100mA
Max. leakage current	< 0.01mA								< 2.0mA
No load current	10mA								-
Response time on / off	1.5ms / 1.5ms								-
Max. Switching frequency	100Hz								15Hz
Hysteresis	< 15%								-
Repeat accuracy	< 5%								-
Temperature drift	< 10%								-
Degree of protection	IP 67								IP 66
Housing material	Stainless steel or nickel plated brass								Cu plated Ni
Ambient temperature	-20 ~ +60								
Weight	approx.115g		approx.110g		approx.231g		approx.219g		approx.160g

特點

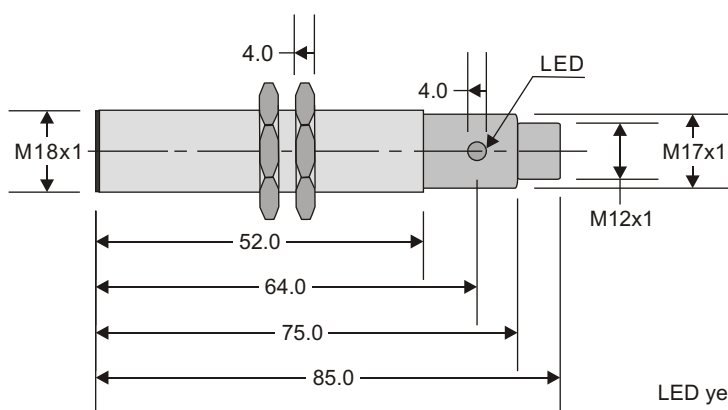
- Analogue output 4 ~ 20mA.
- Measuring window adjustable.
- TEACH-IN input.
- Synchronisation options.
- Deactivation option.
- Temperature compensation.
- Very small unusable area.



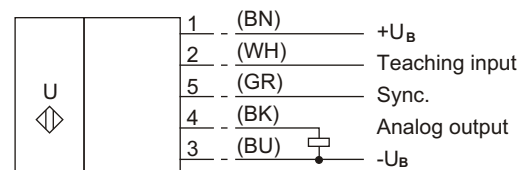
規格

Type		PP-M18-500
General specifications	Sensing range	30 ~ 500 mm
	Adjustment range	50 ~ 500 mm
	Unusable area	0 ~ 30 mm
	Standard target plate	100 x 100 mm
	Transducer frequency	Approx. 380 KHz
	Response delay	Approx. 50 ms
Indicators / operating means	LED yellow	Permanently yellow : object in the evaluation range yellow, flashing : TEACH-IN function, object detected
	LED red	Permanently red : Error red, flashing : TEACH-IN function, object not detected
Electrical specifications	Operating voltage	10 ~ 30VDC, ripple 10% ss
	No-load supply current	45 mA
Input / Output	Synchronisation	1 synchronisation input, bi-directional 0-level : $-U_B \sim +1V$ ; 1-level : $+4V \sim +U_B$ input impedance : $> 12K$ synchronisation pulse : 100 $\mu s$ , synchronisation interpulse period : 2ms
Synchronisation frequency	Common mode operation	95 Hz
	Multiplex operation	95/n Hz, n = number of sensors
Input	Input type	1 TEACH-IN input Lower evaluation limit A1 : $-U_B \dots +1V$ , upper evaluation limit A2 : $+4V \dots +U_B$ input impedance : $> 4.7K$ , pulse duration : 1s
Output	Output type	1 analogue output 4 ~ 20mA
	Deviation of the characteristic curve	$\pm 1\%$ of full-scale value
	Repeat accuracy	$\pm 0.1\%$ of full-scale value
	Resolution	0.13 mm for max. detection range
	Load impedance	0 ~ 300 Ohm
	Temperature influence	$\pm 1.5\%$ of full-scale value
Ambient conditions	Ambient temperature	-25 ~ 70
	Storage temperature	-40 ~ 85
Mechanical specifications	Protection degree	IP 65
	Connection type	connector V15 (M12 x 1), 5 pin
Material	Housing	brass, nickel plated
	Transducer	Epoxy resin / hollow glass sphere mixture ; polyurethane foam
	Mass	60 g

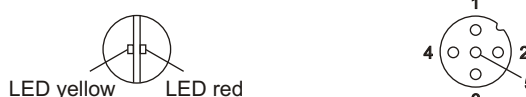
外觀尺寸 (Unit:mm)



Standard symbol / Connection :



Connector :





特點

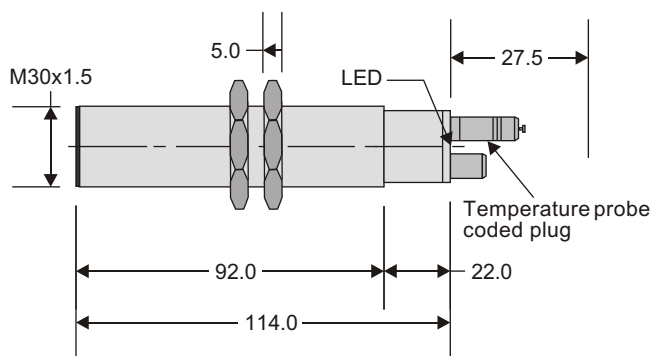
- Parameterisation interface for the application-specific adjustment of the sensor setting via the service program.
- Adjustable acoustic power and sensitivity.
- Current and voltage output.
- Synchronisation options.
- Temperature compensation.



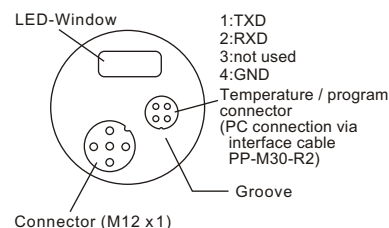
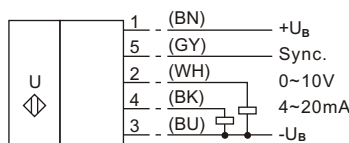
規格

Type		PP-M30-2000
General specifications	Sensing range	80 ~ 2000 mm
	Adjustment range	120 ~ 2000 mm
	Unusable area	0 ~ 80 mm
	Standard target plate	100 x 100 mm
	Transducer frequency	Approx. 180 KHz
	Response delay	65 ms minimum ; 195ms factory setting
Indicators / operating means	LED green	Permanent : Power-on Flashing : Standby mode or TEACH-IN function object detected
	LED yellow1	Permanent : object in evaluation range Flashing : TEACH-IN function
	LED yellow2	Permanent : object in detection range Flashing : TEACH-IN function
	LED red	Permanent : Temperature / TEACH-IN plug not connected Flashing : fault or TEACH-IN function object not detected
Electrical specifications	Operating voltage	10 ~ 30VDC, ripple 10% ss
	Power consumption	900 mW
Interface	Interface type	RS 232, 9600 Bit/s, no parity, 8 data bits, 1 stop bit
Input / Output	Synchronisation	bi-directional 0-level : $-U_B \sim +1V$ ; 1-level : $+4V \sim +U_B$ input impedance : $> 12K\Omega$ synchronisation pulse : 100 $\mu s$ , synchronisation interpulse period : 2ms
Synchronisation frequency	Common mode operation	30 Hz
	Multiplex operation	30/n Hz, n = number of sensors
Output	Output type	1 current output 4 ~ 20mA; 1 voltage output 0 ~ 10 V
	Deviation of the characteristic curve	0.2 % of full-scale value
	Repeat accuracy	0.1% of full-scale value
	Resolution	evaluation range [mm] / 4000, but 0.35mm
	Load impedance	current output : 500 Ohm ; Voltage output : 1000 Ohm
Mechanical specifications	Protection degree	IP 65
	Connection type	connector (M12 x 1), 5 pin
Material	Housing	Stainless steel 1.4303; Plastic parts PBT
	Transducer	Epoxy resin/hollow glass sphere mixture; polyurethane foam
Ambient conditions		Ambient temperature : $-25 \sim 70$ ; Storage temperature : $-40 \sim 85$
Mass		170 g

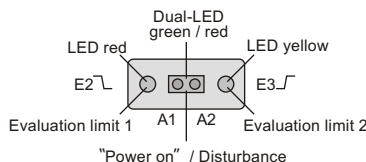
外觀尺寸 (Unit:mm)



Standard symbol / Connection : RS-232 connection :



LED-Window



## 特點

- Unmodulated infrared sensor for liquid level detection.
- Built-in amplifier, Ga-As diode.
- Output : Transistor NPN / PNP.
- High chemical resistance to most acids and bases.
- No electrical or thermal connection between liquid and electrical circuit.
- LED-indication for output ON.



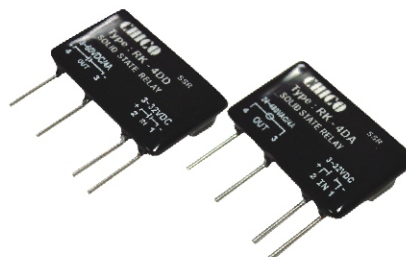
## 規格

Type	PL-03N	PL-03P
Output mode	NPN / NO	PNP / NO
Rated operational voltage	10 ~ 40VDC	
Rated operational current	200 mA	
Voltage drop	1.0 VDC	
No-load supply current	12 mA	
Frequency of operating cycles (f)	30 Hz	
Sensing accuracy	Horizontal mounting : ± 5 mm / Vertical mounting: ± 2.5mm	
Ambient light	0 ~ 100 Lux	
Degree of protection	IP 67	
Operating temperature	-20 ~ +80	
Storage temperature	-40 ~ +100	
Indication for output status	LED, yellow	
Connection	Cable (PVC), 2m	
Pressure	10 bar at + 60	
Pipe thread	3/8" PT	
Weight	90 g	

# Solid State Relay PCB Type

## 特點

- High reliability, long life.
- Safety.
- Low input power consumption.
- No contact points.
- No switching sparks.
- No noise.
- No mechanical damage.



選購型號：RK-□□□-□

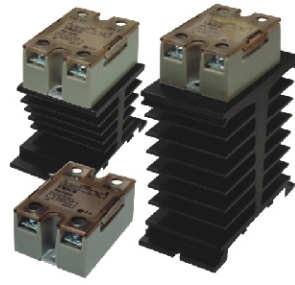
NO.	Output Current	NO.	Input Voltage	NO.	Output Voltage	NO.	High Voltage
2	2A	D	DC 3 ~ 32V	D	DC 3 ~ 60V		Standard Type
4	4A	A	AC 80 ~ 280V	A	AC 24 ~ 280V		Output Voltage
6	6A					H	AC 24 ~ 480V

## 規格

Type	RK-2DA	RK-4DA	RK-6DA	RK-2DD	RK-4DD	RK-2AD	RK-4AD
Max load current	2A	4A	6A	2A	4A	2A	4A
Max 1-cycle peak surge	30A	50A	60A	3A	8.5A	3A	8.5A
Control voltage range	3 ~ 32 VDC			3 ~ 32 VDC		80 ~ 280 VAC	
Must turn off voltage	MAX 1.0 VDC			MAX 1.0 VDC		MAX 10 VAC	
Load voltage range	24 ~ 280 VAC			3 ~ 60 VDC		3 ~ 60 VDC	
Min blocking voltage	600 VAC			80 VDC		80 VDC	
Max off-state leakage	Less 5 mA			Less 1 mA		Less 1 mA	
Dielectric strength input-output	4000 VACrms			2500 Vrms		2500 Vrms	
Turn off time	LESS 1/2 AC cycle			LESS 1/2 cycle		LESS 1/2 See	
Max off-state dv / dt	100 V / μ SEC			200 V / μ SEC			
Max on-state voltage drop	1.5 VAC	2.0 VAC		1.2 Vrms			
Input impedance	1.5 Kohm						
Frequency range	47 ~ 70 Hz						
Isolate impedance	10 <sup>9</sup> ohm						
Turn on time	Less 2 mSec						
Capacitance in-out	Less 15 PF						

### 特點

- 內裝指示燈 (LED) 指示其動作。
- 用表面貼焊技術，提供最可靠的品質。
- 高絕緣阻抗超過 50M (500VDC)。
- 高耐壓超過 2.5KV。
- 具零點觸發方式，可有效避免電磁/高頻干擾。
- 內裝緩衝回路，可吸收外來的瞬間突波。



選購型號：RA-□□□-□□

NO.	Output Current	NO.	Input Voltage	NO.	Output Voltage	NO.	High Voltage	NO.	Heat Sink
05	5A	D	DC 3 ~ 32V	D	DC 5 ~ 60V		Standard Type		None
10	10A	A	AC 80 ~ 250V	A	AC 24 ~ 380V		Output Voltage AC 75 ~ 480V DC 5 ~ 200V	HS1	50 x 80 mm
15	15A	V	Adjusted Output Voltage (Range = 0 ~ 90%)			H		HS2	95 x 100 mm
25	25A								
40	40A								
80	80A								

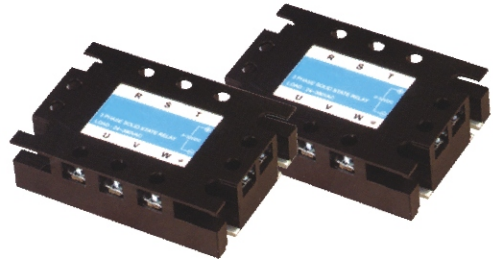
### 規格

Type	DA	DA-H	AA	AA-H	VA	VA-H	DD	DD-H
Load current	5 ~ 80A	10 ~ 80A	5~80A	10 ~ 80A	5 ~ 40A	10 ~ 40A	5 ~ 10A	5 ~ 10A
Output operating voltage	24 ~ 380VAC	75 ~ 480VAC	24 ~ 380VAC	75 ~ 480VAC	24 ~ 380VAC	75 ~ 480VAC	5 ~ 60VDC	5 ~ 200VDC
Leakage current	< 3.0mA	< 5.0mA	< 3.0mA	< 5.0mA	< 5.0mA		< 0.8mA	
Input operating voltage	3 ~ 32VDC		80 ~ 250VAC 50 / 60Hz		-		3 ~ 32VDC	
Trigger current	7.5mA / 12VDC max		5.0mA / 110VAC max		-		7.5mA / 12VDC max	
Control method	Zero cross trigger				Phase control		Isolated by photocouple	
Response time	ON < 10ms, OFF < 10ms		ON < 20ms, OFF < 20ms		-		1ms < ON+OFF >	
Variable resistance	-				Trimmer 250K / 110V, 500K / 220V, 1M / 380V		-	
Voltage drop	1.6V							
Insulation resistance	Min. 50M (500VDC)							
Dielectric strength	2500VAC 50/60Hz for 1min							
Ambient temp. / hum.	-20 ~ +80 / 45% ~ 85%RH							

# Three Phase Solid State Relay 三相固態繼電器

### 特點

- 內裝指示燈 (LED) 指示其動作。
- 用表面貼焊技術，提供最可靠的品質。
- 高絕緣阻抗超過 50M (500VDC)。
- 高耐壓超過 2.5KV。
- 具零點觸發方式，可有效避免電磁/高頻干擾。
- 內裝緩衝回路，可吸收外來的瞬間突波。



選購型號：RA-3-□□□-□□

NO.	Output Current	NO.	Input Voltage	NO.	Output Voltage	NO.	High Voltage
10	10A	D	DC 3 ~ 32V	A	AC 24 ~ 380V		Standard Type
15	15A	A	AC 80 ~ 250V			H	Output Voltage AC 75 ~ 480V
25	25A						
40	40A						
80	80A						

### 規格

Type	DA	DA-H	AA	AA-H
Load current	10 ~ 80A	10 ~ 80A	10 ~ 80A	10 ~ 80A
Output operating voltage	24 ~ 380VAC	75 ~ 480VAC	24 ~ 380VAC	75 ~ 480VAC
Leakage current	< 3.0mA	< 5.0mA	< 3.0mA	< 5.0mA
Response time	ON < 10ms, OFF < 10ms		ON < 20ms, OFF < 20ms	
Trigger current	20mA / 12VDC max		15mA / 110VAC max	
Input operating voltage	3 ~ 32VDC		80 ~ 250VAC 50/60Hz	
Control method	Zero cross trigger			
Voltage drop	1.6V			
Insulation resistance	Min. 50M (500VDC)			
Dielectric strength	2500VAC 50/60Hz for 1min			
Ambient temp. / hum.	-20 ~ +80 / 45% ~ 85%RH			

特點

- Power supply for proximity and photoelectric switches.
- Without change DIP switch, can use for PNP or NPN type proximity switches.
- With DCV stabilizing device.



規格

Type	PT-A1	PT-A2
Rated voltage	110V	220V
Output voltage	DC12V	DC24V
Contact rating	5A 250VAC	
Indicator operating	ON-UP two indicator lamp	
Output contact	1C 5A	
Mechanical life	5 x 10 <sup>6</sup> times	
Electrical life	10 <sup>5</sup> times	
Consumed power	2VA	
Ambient temperature	-10 ~ +55	
Ambient humidity	45 ~ 85%RH	
Weight	130g	
Dimension	50H x 40W x 57.5D(mm)	

Type Controller 控制器

特點

- High performance with low cost.
- Quick delivery.
- Easy to use.
- Variety selection.
- International standard.
- Metal and plastic housing.



選購型號 : PT-R

NO	Operating Voltage	NO	Operating Voltage	NO	Input Signal
1	AC110V	1T	AC110V	N	NPN
2	AC220V	2T	AC220V	P	PNP
Power source with relay out		Power source with Timer Function			

規格

Type	PT-R1	PT-R2	PT-R1T	PT-R2T
Power	AC110V 50/60Hz	AC220V 50/60Hz	AC110V 50/60Hz	AC220V 50/60Hz
Adopt Controller	Power Source with Relay Out		Power source with Timer Function	
Delay Timer Functions	-		ON / OFF-Delay Out (0 ~ 10sec) One-Shot Out (0 ~ 10 sec)	
Input Signal	NPN / PNP			
Current Consumption	8mA NO-Load			
DC Output Voltage	12VDC ± 10%			
Output Current	50mA max			
Operating Voltage	10 ~ 30VDC			
Relay Output	250VAC 3A			
Operating temperature	-25 ~ +60			

### 特點

- Versatile fiber attachments are available, providing a wide range of selection to meet your application.
- The thin housing Can be installed on Din rails.
- Both of output N.C. & N.O. and NPN. PNP. MODELS are measuring.



### 規格

Type	FX-10KT
Response time	1 msec
Timer function	One shot 0 ~ 7 sec off-delay (switch selectable)
Current consumption	40mA max
Output model	NPN and PNP NO / NC
Power supply	12 ~ 24VDC $\pm$ 10%
Control output	100mA max(40VDC max.), Residual voltage : 1V max
Light source	Red LED (625nm)
Indicators	Output indicator : Red LED, Power indicator : Green LED
Sensitivity adjustment	4-turns trimmer
Protection circuit	Reversed polarity protection, over-current protection, surge absorber
Housing	ABS Resin
Weight	Approx. 85g

## Fiber Amplifier 18mm cylindrical type 光纖感測器

### 特點

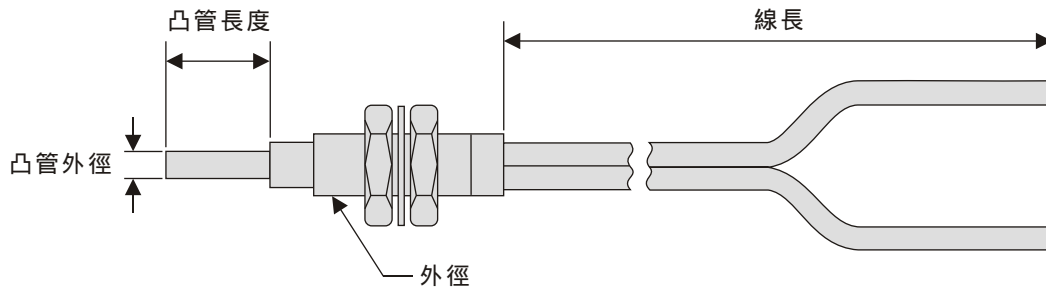
- High performance with low cost.
- Quick delivery.
- Easy to use.
- Variety selection.
- International standard.
- Metal and plastic housing.



### 規格

Type	FW-10N
Output method	NPN open collector
Detection range	1.0 Fiber D : 4 ~ 5cm T : 10cm
Supply voltage	DC 10 ~ 30V $\pm$ 20% (ripple 10% Max)
Current consumption	30mA Max
Max. output current	100mA Max
Response time	Less than 3.0ms (ON / OFF)
Circuit Protection	1. Output over current protection 2. Reverse-polarity protected 3. Interference suppression
Operation model	Light-on, dark-on selectable by control cable (With)
Light-on operation	Control cable (White wire) connected to V+ (Brown)
Dark-on operation	Control cable (White wire) connected to 0V (Blue)
Light source	Red LED 660nm
Indicator	Yellow LED on, when light is received
Ambient temperature	Operating temperature : -25 ~ 55
Protection degree	IP 66
Extraneous light immunity	Lamplight : 3000Lux; Sunlight : 10000Lux Max
Adjustable sensitivity	YES--By Potentiometer
Cable	Length : 2m, Material : PVC, Color : Gray
Weight	88g

外觀



選購型號：FB - 光纖型式 外型 外徑大小 線長 - 凸管長度 凸管外徑

**FB - RM310 - 2016**

光纖型式	外型	外徑大小	線長	凸管長度	凸管外徑
R 反射式光纖	N 無螺牙型	1 外徑 1mm	05 線長 50cm	標準型	標準型
T 透過式光纖	M 螺牙型	2 外徑 2mm	10 線長 100cm	10 凸管長 10mm	09 凸管外徑 0.9mm
GR 反射式玻璃光纖	C 同軸型	3 外徑 3mm	20 線長 200cm	15 凸管長 15mm	16 凸管外徑 1.6mm
GT 透過式玻璃光纖	S 精密型	4 外徑 4mm	30 線長 300cm	20 凸管長 20mm	26 凸管外徑 2.6mm
	X 加大型(1.5mm內徑)	5 外徑 5mm		40 凸管長 40mm	
		6 外徑 6mm		90 凸管長 90mm	
				W 可曲折	

反射式光纖



型號	外型	最小檢測物	線長*1	檢測距離
FB-RM610	M6	0.05mm	1M	FX-301 : 180mm FX-12 : 150mm
FB-RM410	M4	0.02mm	1M	FX-301 : 60mm FX-12 : 50mm
FB-RM310	M3	0.02mm	1M	FX-301 : 60mm FX-12 : 50mm
FB-RN310	$\phi 3$	0.02mm	1M	FX-301 : 50mm FX-12 : 45mm
FB-RN210	$\phi 2$	0.01mm	1M	FX-301 : 50mm FX-12 : 45mm
FB-RC410	M4	0.02mm	1M	FX-301 : 60mm FX-12 : 50mm
FB-RC310	M3	0.01mm	1M	FX-301 : 50mm FX-12 : 45mm
FB-RM610-2026	M6	0.02mm	1M	FX-301 : 150mm FX-12 : 135mm
FB-RM410-1015	M4	0.01mm	1M	FX-301 : 50mm FX-12 : 45mm
FB-RM310-2016	M3	0.01mm	1M	FX-301 : 35mm FX-12 : 30mm
FB-RM310-1509	M3	0.01mm	1M	FX-301 : 30mm FX-12 : 25mm

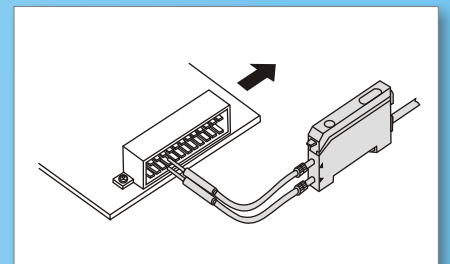
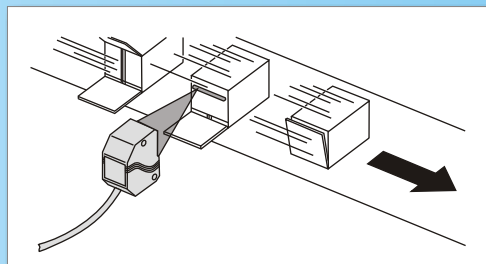
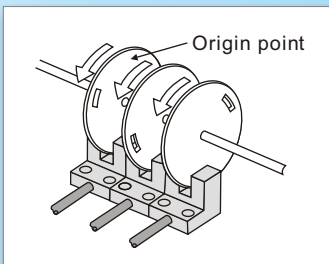
透過式光纖



FB-TM410	M4	0.20mm	1M	FX-301 : 450mm FX-12 : 400mm
FB-TM410-W	M4	0.16mm	1M	FX-301 : 200mm FX-12 : 180mm
FB-TM310	M3	0.16mm	1M	FX-301 : 430mm FX-12 : 380mm
FB-TM310-W	M3	0.12mm	1M	FX-301 : 180mm FX-12 : 160mm

若有特殊光纖欲訂做，請將尺寸規格傳真至敝公司，會有專人為您服務。

\*1 : 光纖長度可訂製



*Noncontact Thermocouple*

*Fiber Amplifier*

*Controller Unit*

<http://www.chicop.com>  
E-mail : [service@chicop.com](mailto:service@chicop.com)

*Distributor :*