

PM08 Series

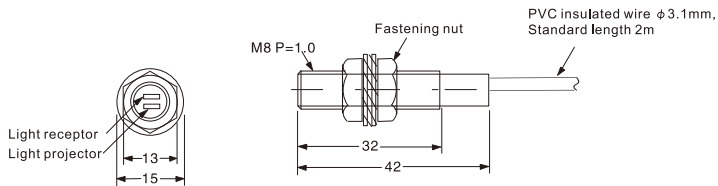
Photoelectric



Appearance		
Sensing type	Diffuse reflection	
Sensing distance	30mm (White 30X30mm)	
Hysteresis	< 20%	
Light source	IR Diode(940nm)	
Operating voltage	12~24V DC \pm 10% ripple(p-p) < 10%	
Current consumption	\leq 30mA	
Control output	NPN open-collector output	PNP open-collector output
Switch mode	L.on	
Protection circuit	Short circuit protection, reverse polarity protection, anti-interference protection	
Response time	Action/Reset: < 3ms	
Ambient brightness	Sunlight \leq 10000lux, Incandescent Lamp \leq 3000lux	
Ambient temperature	Operation: $-25^{\circ}\text{C}\sim+55^{\circ}\text{C}$, Storage: $-30^{\circ}\text{C}\sim+70^{\circ}\text{C}$ (No freezing, No condensation)	
Ambient humidity	Operation: 30~85%RH, Storage: 35~95%RH	
Insulation resistance	> 20M Ω	
Withstand voltage	500 V/AC 50/60Hz 1min	
Anti-vibration	10 to 55 Hz with 1.5mm up&down amplitude for 2 hours each in X, Y, and Z directions	
Impact resistance	500m/s ² for 3 times each in X, Y, Z directions	
Degree of protection	IP65	
Connection method	2M 3core cable	
Weight	Approx 80g	
Material	Stainless steel	
Accessories	Mounting screws	
Model No.	PM08-D03NO HOT	PM08-D03PO

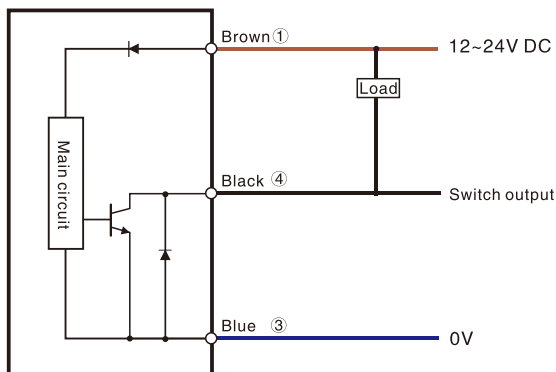
Dimensions

Unit: mm

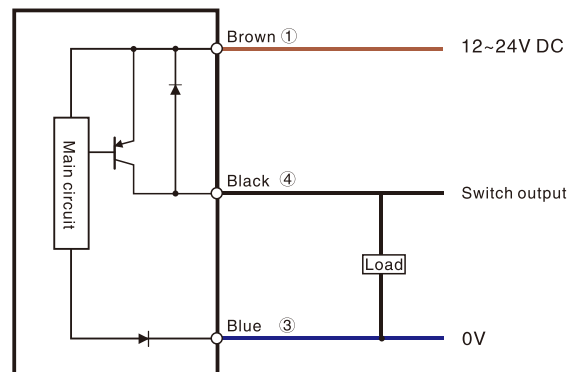


Circuit diagram

NPN Output



PNP Output





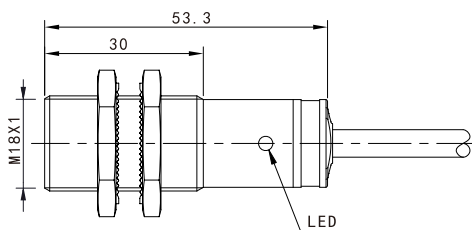
Appearance

Sensing type	Diffuse reflection		Thru-beam		Retro-reflection	
Sensing distance	10cm(fixed)	40cm(adjustable)	1000cm(fixed)	2000cm(fixed)	300cm(fixed)	
Hysteresis	3~20%		...			
Repeat accuracy	< 5%					
Output type	NPN/PNP Open-collector					
Switch type	Selectable L.on/D.on					
Indicator	Yellow LED		Green LED(Emitter)/Yellow LED(Receiver)		Yellow LED	
Response time	< 8.2 ms					
Light source	Infrared LED(880nm)					
Operating voltage	10~30V DC					
Voltage drop	< 2.5V					
Current consumption	< 25mA					
Load current	< 200mA					
Protection circuit	Reverse polarity, short circuit, surge protection					
Ambient temperature	-15°C~+55°C, No freezing					
Ambient humidity	35%~95%RH, No condensation					
Degree of protection	IP67					
Material	Nickel copper alloy					
Connection method	2M 4core cable					
Accessories	Mounting screws					
Model No.	NPN	PM18-D10NR	PM18-D40NR	PM18-TM10NR	PM18-TM20NR	PM18-R300NR
	PNP	PM18-D10PR	PM18-D40PR	PM18-TM10PR	PM18-TM20PR	PM18-R300PR

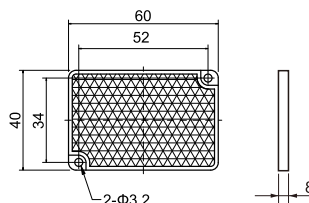
- Fiber Optic
- Slot Sensors
- Photoelectric**
- Laser
- Proximity
- Displacement
- Magnetic
- Contact
- Area
- Ultrasonic
- Vision
- Code Readers
- Vibration
- Temperature
- Annexes

Dimensions

Unit: mm



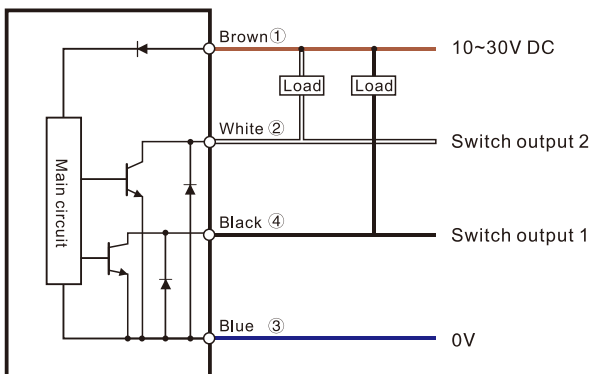
Reflector for PM18-R300



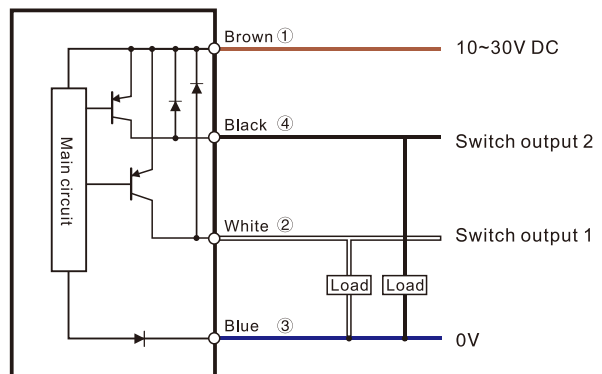
(Standard TD-09)

Circuit diagram

NPN Output



PNP Output



Guidance

Photoelectric

Cylindrical

Square

Flat type

Thin type

BGS

Transparent detection

Color/Mark Detection

TOF type

IP69K high protection type

Anti-glare type

IO-Link type

Reflectors

Reflectors

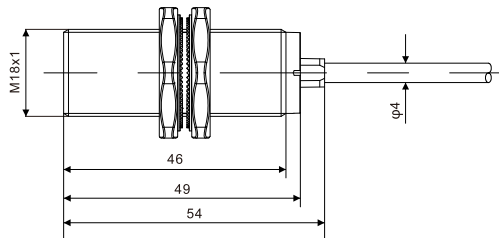
Economy type



Appearance

Sensing type	Disffuse Reflection		Thru-beam			
Sensing distance	10cm(fixed)		5m(fixed)	20m(fixed)		
Detected object	100mm × 100mm 90% whiteness white paper		> φ 18mm, opaque			
Output type	NPN Open-collector		NPN/PNP Open-collector			
Switch type	L.on		Selectable L.on/D.on			
Indicator	Motion indicator light: yellow		Transmitter end: power indicator: green; Receiving end: action indicator light: yellow			
Response time	0.5ms		33ms			
Light source	Infrared LED 940nm (modulation)		Infrared LED 850nm (modulation)			
Operating voltage	10~30V DC		12~24V DC	10~24V DC		
residual voltage	< 2V					
Current consumption	< 25mA		Transmitter < 20 mA; Receiver < 20mA	Transmitter < 25 mA; Receiver < 25mA		
Load current	< 150mA		< 100mA			
Protective circuit	Reverse polarity, short circuit, surge protection					
Ambient temperature	-20°C~+55°C, No freezing		-20°C~+60°C, No freezing			
Storage temperature	-25°C~+65°C		-25°C~+70°C	-20°C~+60°C		
Ambient humidity	35~90%RH, No condensation					
Store humidity	35~90%RH					
Withstand Voltage	± 1000V 50/60Hz 60s					
Electrostatic	± 4000V					
group value	± 2000V					
Resistance	10~50Hz, 0.5mm amplitude, X, Y, Z direction 2 hours each					
Ambient brightness	Incandescent lamp: < 3000lux, sunlight: < 10000lux					
Degree of protection	IP67					
Material	Nickel copper alloy					
Connection method	2M 3core cable					
Accessories	Mounting screws					
Model No.	NPN	PM18-D10NO	PM18-D10NC	PM18-TM05NO	PM18-TM20NO	PM18-TM20NC
	PNP			PM18-TM05PO	PM18-TM20PO	PM18-TM20PC

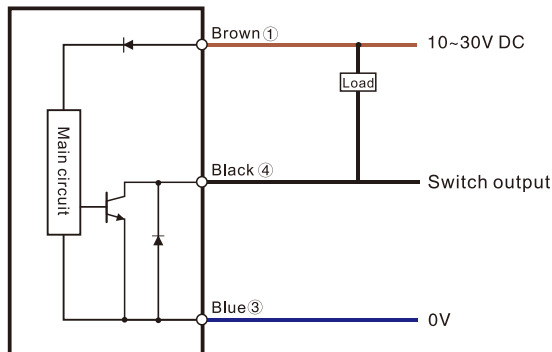
Dimensions



Unit: mm

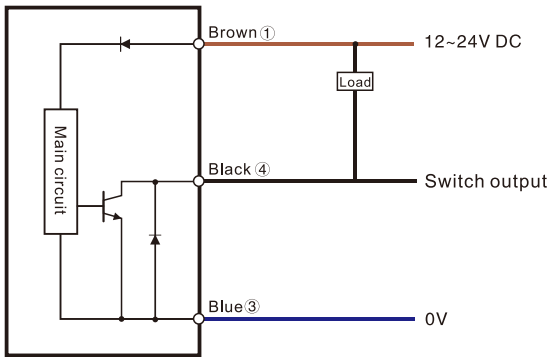
PM18-D10NO(NC)

NPN Output

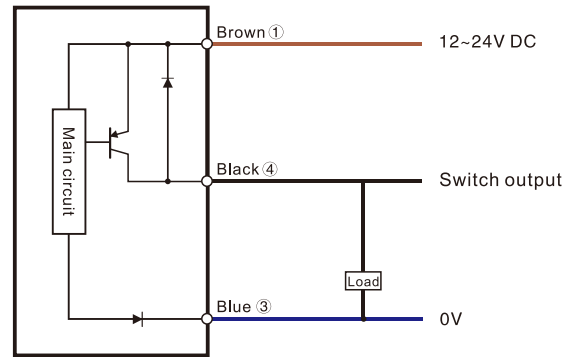


PM18-TM05N(P)O

NPN Output

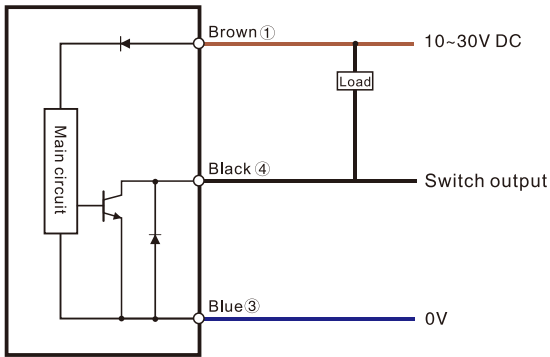


PNP Output

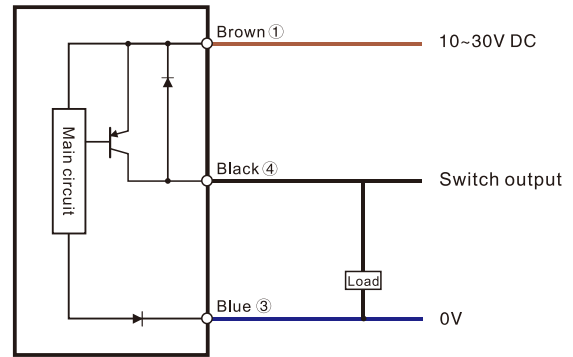


PM18-TM20N(P)O(C)

NPN Output



PNP Output



- Fiber Optic
- Slot Sensors
- Photoelectric**
- Laser
- Proximity
- Displacement
- Magnetic
- Contact
- Area
- Ultrasonic
- Vision
- Code Readers
- Vibration
- Temperature
- Annexes

Guidance

Photoelectric

- Cylindrical**
- Square
- Flat type
- Thin type
- BGS
- Transparent detection
- Color/Mark Detection
- TOF type
- IP69K high protection type
- Anti-glare type
- IO-Link type

Reflectors

- Reflectors

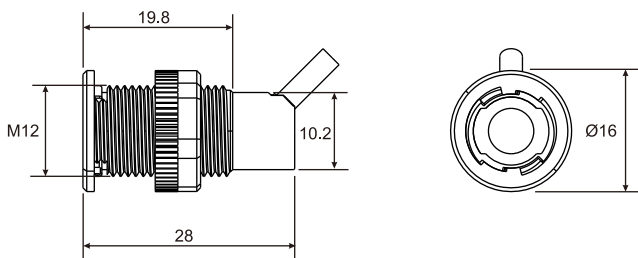


NEW!

Appearance		
Sensing type	Through beam	
Sensing distance	5m	
Light source	Infrared LED	
Sensing object	opaque object, $\phi > 8\text{mm}$	
Output	NPN / PNP for option	
Switch Type	Light on/ Dark on selectable	
Response time	<2ms	
Indicators	Power: Green, Operation indicator: Orange	
Power supply	12-24V DC $\pm 10\%$ Ripple P-P10% or less	
Residual voltage	< 1 V (When input current is equal to 50 mA)	
Current consumption	Emitter < 18 mA, Receiver < 15 mA	
Load current	<50mA	
Protective Circuit	Short circuit protection	
Ambient temperature	Operation: $-25\sim 55^{\circ}\text{C}$; storage: $-30\sim 70^{\circ}\text{C}$, no freezing	
Ambient humidity	Operation: 30~90% RH, storage: 35~85% RH, no condensation	
Protective degree	IP67	
Material	Housing, lens: PC	
Connection	Emitter: 2m 2 core cable; Receiver: 2m 2 core cable	
Weight	Approx.25g	
Model No.	NPN	PSM12-TM05NO
	PNP	PSM12-TM05PO
		PSM12-TM05NC
		PSM12-TM05PC

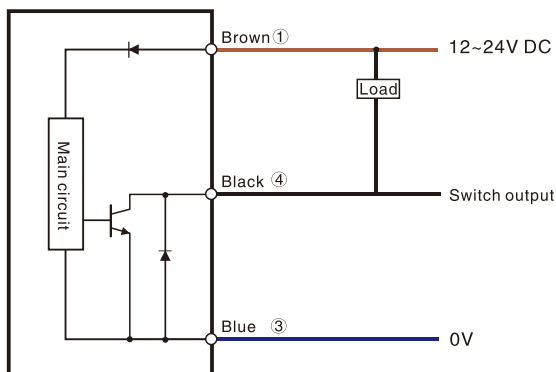
Dimensions

Unit: mm

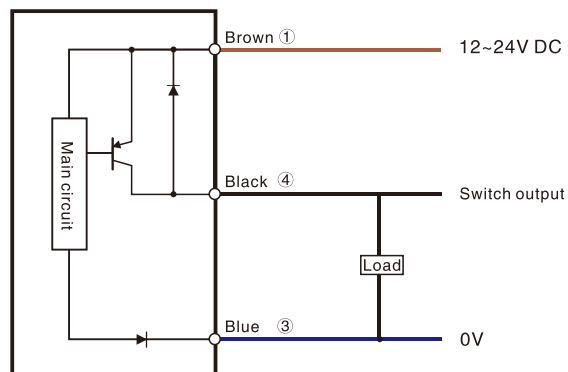


Circuit diagram

NPN Output



PNP Output





NEW!

Appearance	
Sensing type	Diffuse reflective
Sensing distance	40 cm (adjustable)
Light source	Red light LED
Sensing object	opaque object, $\phi > 18$ mm
Output	NPN / PNP for option
Switch Type	Light on/ Dark on selectable
Indicators	Power: Green, Operation indicator: Red
Power supply	10~30V DC
Residual voltage	<2V
Current consumption	<25mA
Load current	<120mA
Response time	<2ms
Protective Circuit	reverse polarity protection, short circuit protection
Ambient temperature	-15~55°C, no freezing
Ambient humidity	35~90% RH, no condensation
Ambient light	Sunlight $\leq 1,000$ Lux
Withstand volatge	$\pm 1000V$ 50/60Hz 60s
Static electricity	$\pm 8000V$
Group pulse	$\pm 2000V$ 5KHz/100KHz
Anti-vibration	10~50Hz, amplitude 0.5mm; 2 hours each in X, Y, Z directions
Protective degree	IP65
Material	PC
Connection	2m 3 wire cable
Model No.	NPN PSM18-D40N PNP PSM18-D40P

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Photoelectric

Cylindrical

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Flat type

Thin type

BGS

Transparent detection

Color/Mark Detection

TOF type

IP69K high protection type

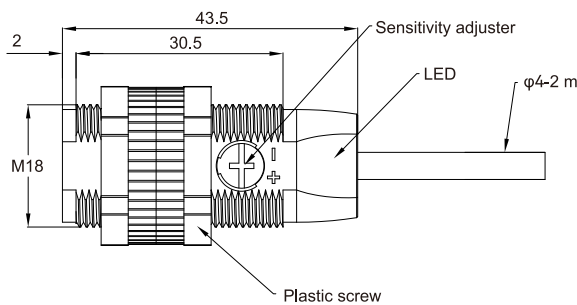
Anti-glare type

IO-Link type

Reflectors

Reflectors

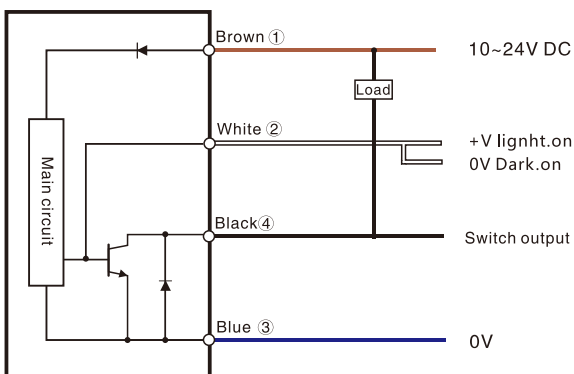
Dimensions



Unit: mm

Circuit diagram

NPN Output



PNP Output

