

Cylindrical

PM08 Series

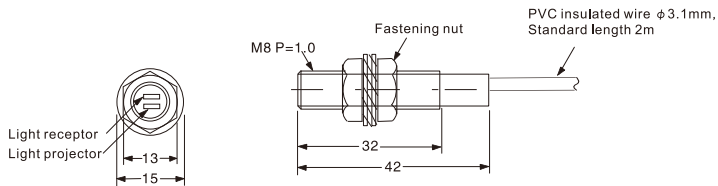
Photoelectric



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

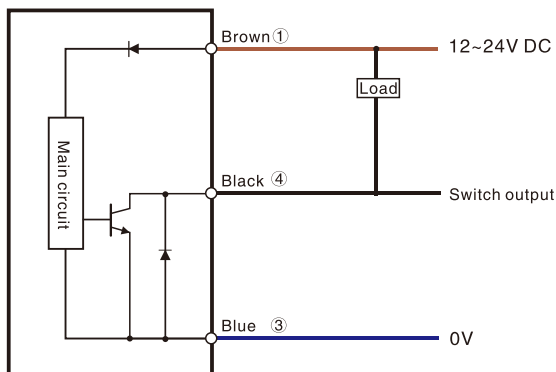
Dimensions

Unit: mm

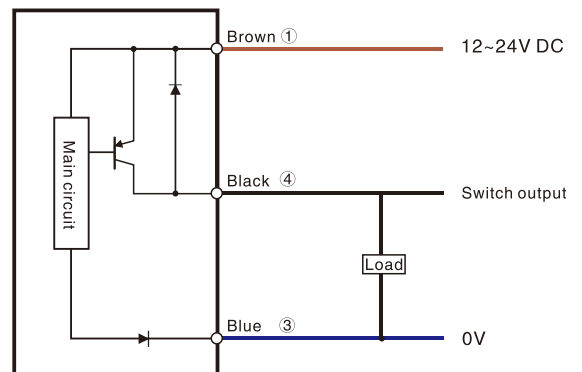


Circuit diagram

NPN Output



PNP Output



PM18-TF Series



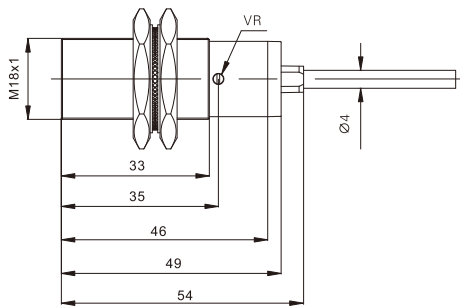
TOF Principle



Appearance

Sensing type	Reflection
Sensing distance	1.2m
Spot divergence angle	30°
Output	NPN / PNP open collector
Switch type	L.on/ D.on selectable
Indicator	Operation: green, Motion: Red
Sensitivity adjustment	multi-turn adjuster
Light source	Laser 940nm (Modulated), class 1
Operating voltage	10~30V DC
Voltage drop	< 1.5V
Current consumption	≤20mA
Load current	≤100mA
Circuit protection	Short circuit, reverse polarity, surge protection
Ambient temperature	-10°C~50°C No freezing
Ambient humidity	35~85%RH, No condensation
Withstand voltage	± 1000V 50/60Hz 60s
Static electricity	± 8000V (air discharge)
Group pulse	± 2000V (5kHz/50kHz)
Impact resistance	10~55Hz amplitude 1.5mm; X, Y, Z 3 directions, 2 hours each
Ambient illumination	Incandescent lamp: <3,000 lux, Sunlight < 5,000 lux
Degree of protection	IP67
Material	Nickel-copper alloy
Connection	2M 3-core cable
Accessories	Mounting screws
Model No.	NPN PM18-TF120N PNP PM18-TF120P

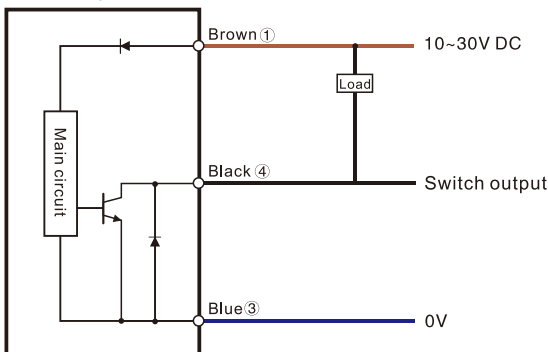
Dimensions



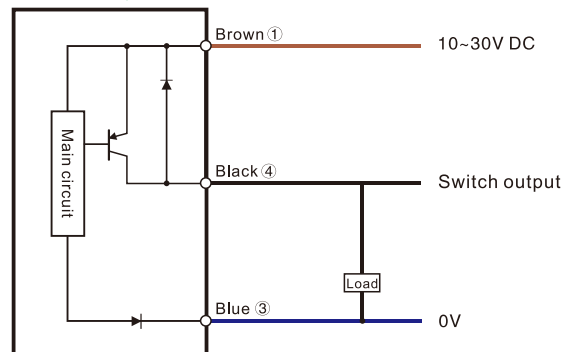
Unit: mm

Circuit diagram

NPN Output



PNP Output



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

Guidance

Photoelectric

- Cylindrical**
- Square
- Flat type
- Thin type
- BGS
- Transparent detection
- Color/Mark Detection
- TOF type
- IP50K high protection type
- Anti-glare type
- IO-Link type

Reflectors

- Reflectors

Cylindrical

PSM12 Series

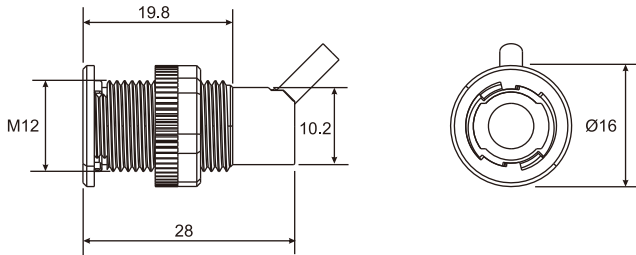


Appearance	
Sensing type	Thru-beam
Sensing distance	5m
Light source	Infrared LED
Detected object	opaque object, $\phi > 8\text{mm}$
Output	NPN / PNP for option
Switch type	Light on/ Dark on selectable
Response time	<2ms
Indicators	Power: Green, Operation indicator: Orange
Power supply	12~24V DC $\pm 10\%$ 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
Circuit protection	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
Degree of protection	IP67
Material	Housing, lens: PC
Connection	Emitter: 2m 2 core cable; Receiver: 2m 2 core cable
Weight	Approx. 25g

Model No.	NPN	PSM12-TM05NO	PSM12-TM05NC
	PNP	PSM12-TM05PO	PSM12-TM05PC

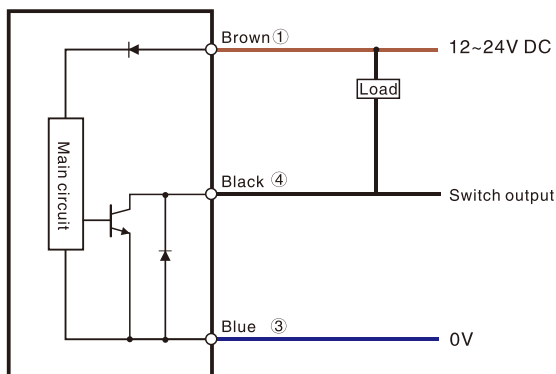
Dimensions

Unit: mm

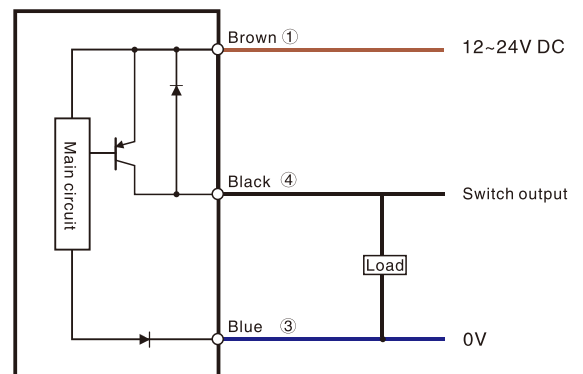


Circuit diagram

NPN Output



PNP Output





NEW!



Appearance	
Sensing type	Diffuse reflective
Sensing distance	40 cm (adjustable)
Light source	Red light LED
Detected object	opaque object, $\phi > 7$ 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	<1.5V
Current consumption	<25mA
Load current	<120mA
Response time	<2ms
Circuit protection	reverse polarity protection, short circuit protection
Ambient temperature	-15~55°C, no freezing
Ambient humidity	35~90% RH, no condensation
Ambient illuminance	LED ≤ 450 Lux
Withstand voltage	$\pm 1000V$ 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
Degree of protection	IP67
Material	PC
Connection	2m 4 wire cable
Model No.	NPN PSM18-D40N PNP PSM18-D40P

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Guidance

Photoelectric

Cylindrical

Square

Flat type

Thin type

BGS

Transparent detection

Color/Mark Detection

TOF type

IP69K high protection type

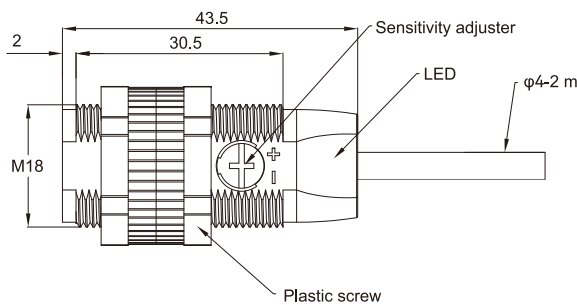
Anti-glare type

IO-Link type

Reflectors

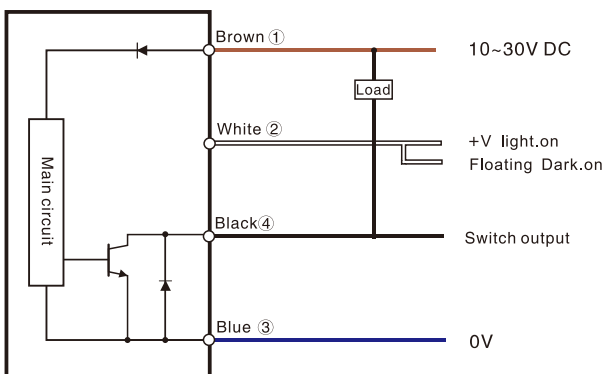
Reflectors

Dimensions

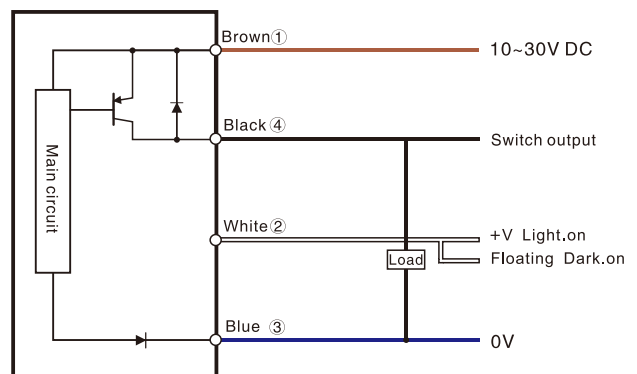


Circuit diagram

NPN Output



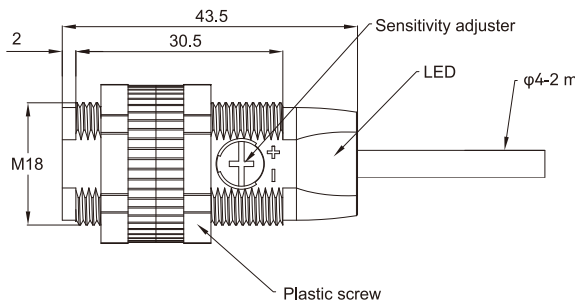
PNP Output





Appearance	
Sensing type	Diffuse reflective
Sensing distance	40 cm (adjustable)
Light source	Infrared LED
Detected object	opaque object, $\phi > 7$ 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	<1.5V
Current consumption	<25mA
Load current	<120mA
Response time	<2ms
Circuit protection	reverse polarity protection, short circuit protection
Ambient temperature	-15~55°C, no freezing
Ambient humidity	35~90% RH, no condensation
Ambient illuminance	LED ≤ 450 Lux
Withstand voltage	$\pm 1000V$ 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
Degree of protection	IP67
Material	PC
Connection	2m 4 wire cable
Model No.	NPN PSM18-DV40N PNP PSM18-DV40P

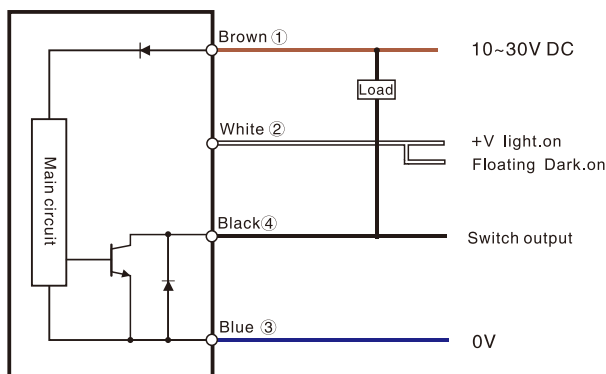
Dimensions



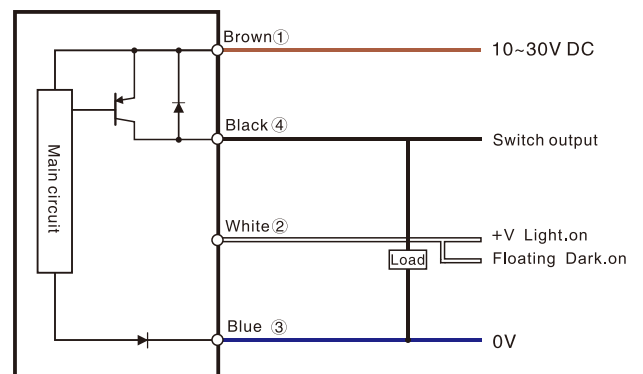
Unit: mm

Circuit diagram

NPN Output



PNP Output



PXM18 Series



Appearance		
Sensing type	Diffuse reflection	
Sensing distance	10cm(adjustable)	40cm(adjustable)
Hysteresis	≤10%	
Repeat accuracy	5%	
Output type	NPN/PNP Open-collector	
Switch type	Selectable L.on/D.on	
Response time	20ms	
Indicator	Red LED(660nm)	Red LED(880nm)
Operating voltage	10~30V DC(±10%)	
Voltage drop	2V max 1L=100mA	
Leakage current	10 μA	
Current consumption	30mA	
Load current	100mA	
Circuit protection	Reverse polarity protection, output short circuit protection, pulse overvoltage protection	
Ambient temperature	-25℃~+70℃, No freezing	
Ambient illuminance	Sunlight ≤10000 lux, Incandescent lamp ≤3000 lux	
Degree of protection	IP67	
Tightening torque	1Nm	
Material	Housing: PBT, Lens: PC	
Weight	≈50g	
Connection method	2M 4core cable	
Accessories	Mounting screws	
Model No.	NPN PNP	PXM18-D10N PXM18-D10P
		PXM18-D40N PXM18-D40P

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Guidance

Photoelectric

Cylindrical

Square

Flat type

Thin type

BGS

Transparent detection

Color/Mark Detection

TOF type

IP59K high protection type

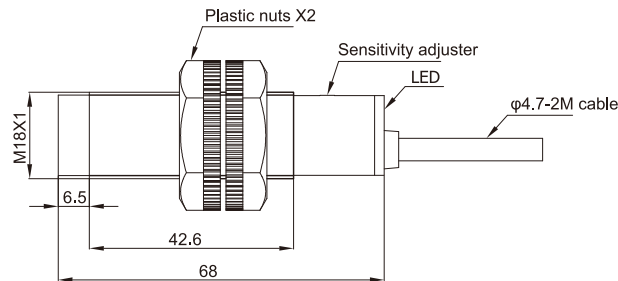
Anti-glare type

IO-Link type

Reflectors

Reflectors

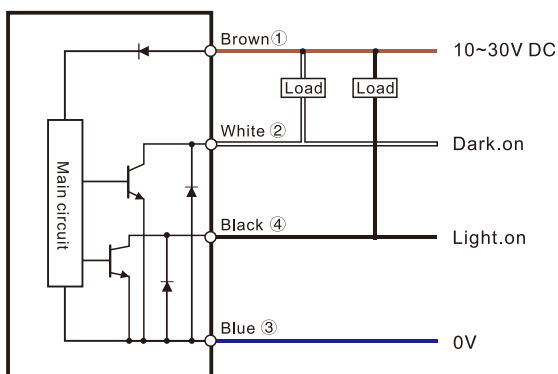
Dimensions



Unit: mm

Circuit diagram

NPN Output



PNP Output

