



Economical Type

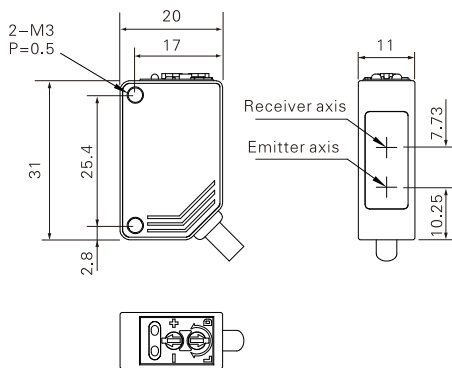
NEW!

Appearance							
Sensing type	Diffuse reflection		Convergent reflective	Retro-reflection			
Sensing distance	30cm	100cm	14cm	20cm	200cm	300cm	
Spot size	≈ φ 16mm / 300mm	≈ φ 50mm / 1000mm	≈ φ 9mm / 140mm	φ 10mm / 20cm	φ 50mm / 2m	φ 90mm / 3m	
Output type	NPN or PNP open collector, ≤100mA (30V DC)						
Switch type	L.on / D.on Switchable						
Indicator	Motion indicator: Red ; Operating indicator: Green						
Response time	<1ms		1ms	<1ms			
Sensitivity adjustment	Single-turn potentiometer						
Light source	Red light LED 623 nm (modulated)						
Operating voltage	10~30V DC						
Current consumption	≤20mA						
Ambient brightness	Sunlight ≤10000 Lux; Incandescent Lamp ≤ 3000 Lux						
Ambient temperature	-25°C~+55°C, No freezing						
Ambient humidity	35%~85%RH, No condensation						
Anti-vibration	10 ~ 50Hz, 0.5mm amplitude, 2 hours each in X, Y, Z directions						
Protective circuit	Power reverse polarity protection, output reverse polarity protection, surge protection, short circuit protection						
Degree of protection	IP65						
Connection method	2M/3 cores cable, φ 4mm						
Material	PBT+Fiberglass (Housing) , PMMA (Lens)						
Accessories	Screwdriver		Screwdriver, reflective sticker	Screwdriver, reflector			
Model No.	NPN	PTE-D30N	PTE-D70N	PTE-X09N	PTE-R20N	PTE-R200N	PTE-R300N
	PNP	PTE-D30P	PTE-D70P	PTE-X09P	PTE-R20P	PTE-R200P	PTE-R300P

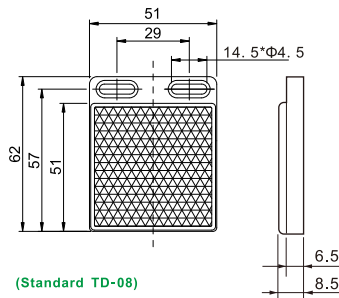
- Fiber Optic
- Slot Sensors
- Photoelectric**
- Laser
- Proximity
- Displacement
- Magnetic
- Contact
- Area
- Ultrasonic
- Vision
- Vibration
- Temperature
- Annexes

Dimensions

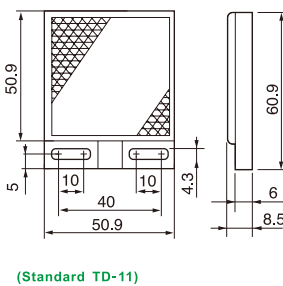
Unit: mm



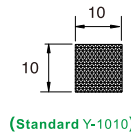
Reflector for PTE-R200



Reflector for PTE-R300

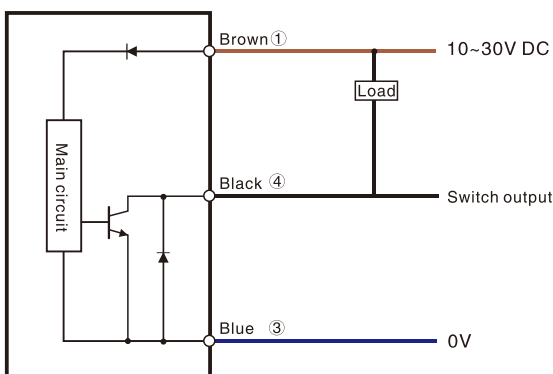


PTE-R20 Reflective Stickers

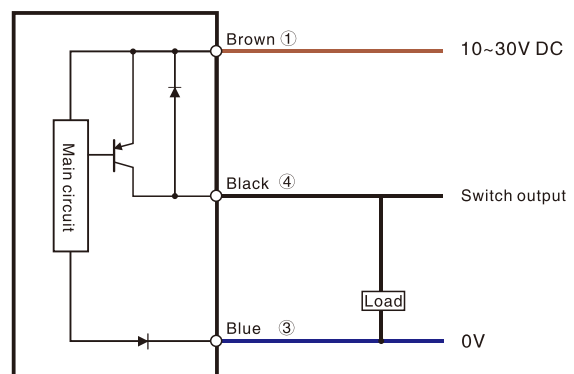


Circuit diagram

NPN Output



PNP Output



Guidance

Photoelectric

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

Reflectors

- Reflectors

Square

PTE Series



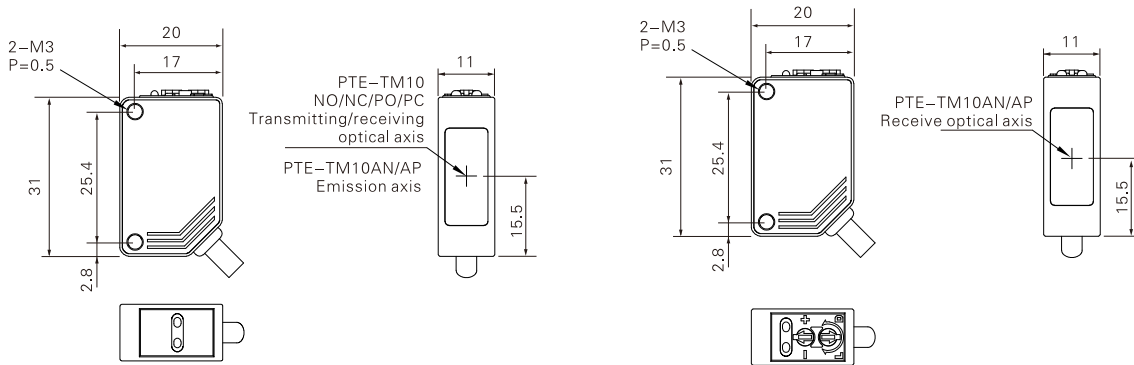
Economical Type

NEW!

Appearance			
Sensing type	Thru-beam Reflection		
Sensing distance	10m (fixed)		10m
Sensing object	$\phi > 12\text{mm}$, opaque		
Output type	NPN / PNP open collector		
Switch Type	L.on /D.on selectable		L.on /D.on Switchable
Indicator	Status indicator: green, output indicator: red		Emitter: Power: green; Receiver: Operation: green, Motion: red
Response time	150HZ		
Sensitivity	Not adjustable		Single turn potentiometer
Light source	IR LED 623nm (modulated)		
Operating voltage	10~30V DC		
Current consumption	Emitter $\leq 16\text{mA}$; Emitter $\leq 15\text{mA}$		
Ambient light	Sunlight $\leq 10,000$ Lux, Incandescent lamp $\leq 3,000$ Lux		
Ambient temperature	$-25^{\circ}\text{C} \sim +55^{\circ}\text{C}$, No freezing		
Ambient humidity	35%~85% RH, No condensation		
Anti-vibration	10 to 50 Hz with 0.5mm amplitude for 2 hours each in X, Y, and Z directions		
Protection circuits	Power reverse polarity protection, short circuit protection		
Degree of protection	IP65		
Connection	2M / 3 cores cable 4mm diameter		
Material	Fiberglass (shell), PMMA(Window)		
Accessories	Screwdriver		
Model No.	NPN	PTE-TM10NO	PTE-TM10NC
	PNP	PTE-TM10PO	PTE-TM10PC
			PTE-TM10AN
			PTE-TM10AP

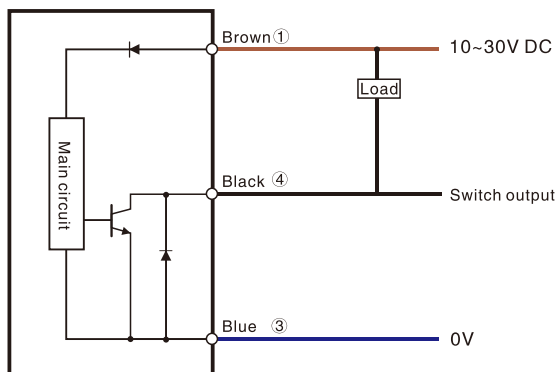
Dimensions

Unit: mm

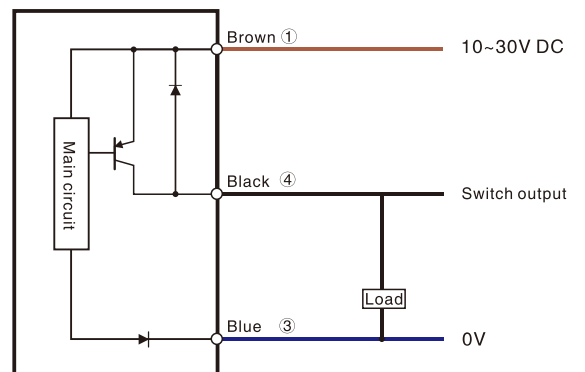


Circuit diagram

NPN Output



PNP Output





Wide Facula Type

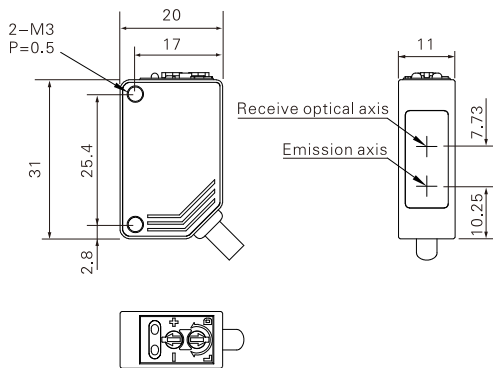
NEW!

Appearance			
Sensing type	Disffuse refection		
Sensing distance	20cm	10cm	20cm
Spot diameter	130*130mm/20cm	-	-
Output type	NPN / PNP open collector		
Switch Type	L.on /D.on selectable		
Indicator	Operation indicator: Green, Motion indicator: Red		
Response time	1ms		
Sensitivity	Single-turn potentiometer		
Light source	Red LED 623nm (modulation)	Infrared LED 940nm (modulation)	
Operating voltage	10~30V DC		
Current consumption	≤20mA		
Ambient light	Sunlight ≤10000Lux, Incandescent lamp ≤3000Lux		
Ambient temperature	-25°C ~ +55°C, No freezing		
Ambient humidity	35% ~85% RH, No condensation		
Anti-vibration	10 to 50 Hz with 0.5mm amplitude for 2 hours each in X, Y, and Z directions		
Protection circuits	Power reverse polarity protection, output reverse polarity protection, surge protection, short circuit protection		
Degree of protection	IP65		
Connection	2M / 3 wire cable 4mm diameter		
Material	PBT+Fiberglass (body), PMMA(window)		
Accessories	Screwdriver		
Model No.	NPN PNP	PTEW-D20N PTEW-D20P	PTVW-D10N PTVW-D10P
			PTVW-D20N PTVW-D20P

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

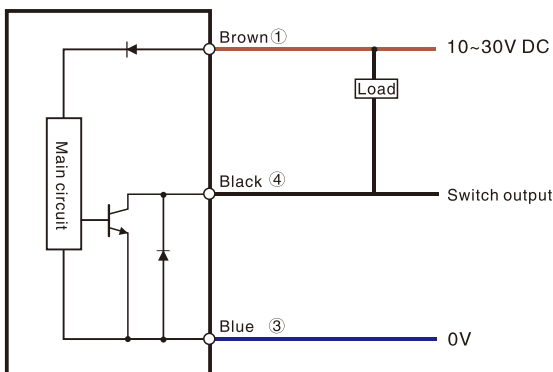
Dimensions

Unit: mm

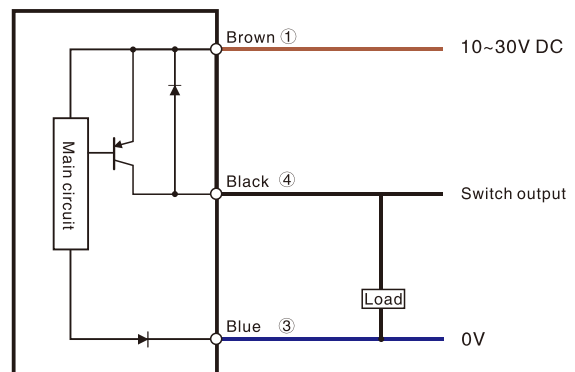


Circuit diagram

NPN Output



PNP Output



Guidance

Photoelectric

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

Reflectors

- Reflectors

Anti-glare Type

PTL Series



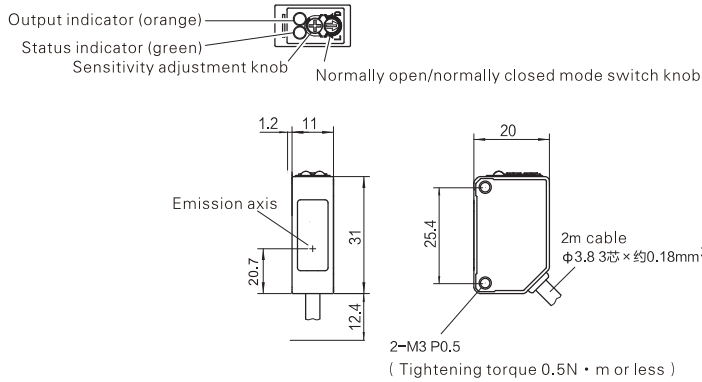
Anti-glare Type

NEW!

Appearance		
Sensing type	Diffuse reflection-BGS	
Sensing distance	5~100mm	10~300mm
Sensing distance	20~100mm	50~300mm
Spot diameter	≈ Ø10mm/100mm	≈ Ø30mm/300mm
Should be bad	≦3%	≦5%
Output type	NPN / PNP open collector	
Switch Type	L.on/D.on selectable	
Indicator	Operating indicator: orange, Status indicator: red	
Response time	≦1ms	
Sensitivity	6-turn potentiometer	4-turn potentiometer
Light source	Red LED	
Operating voltage	10~30V DC	
Current consumption	≦30mA	
Ambient light	Sunlight ≦ 50,000 Lux, Incandescent lamp ≦ 5,000 Lux	
Ambient temperature	-25°C~+55°C, No freezing	
Ambient humidity	35%~85%RH, No condensation	
Anti-vibration	10 to 50 Hz with 0.5mm amplitude for 2 hours each in X, Y, and Z directions	
Degree of protection	IP67	
Connection	ABS (body), PMMA (window)	
Accessories	Screwdriver	
Model No.	NPN PTL-D10N PNP PTL-D10P	PTL-D30N PTL-D30P

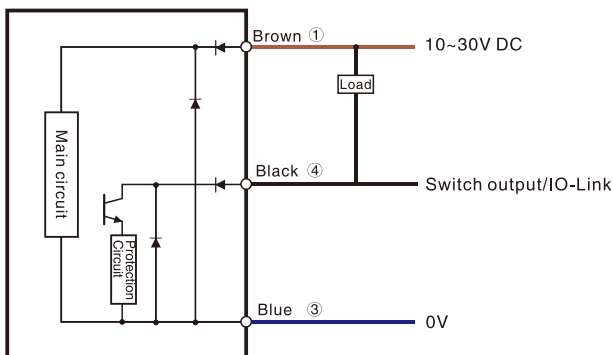
Dimensions

Unit: mm

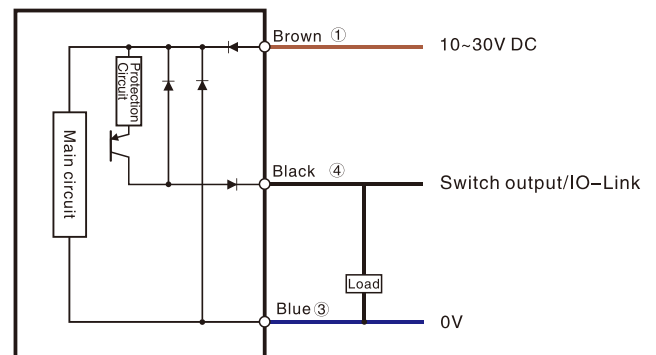


Circuit diagram

NPN Output



PNP Output





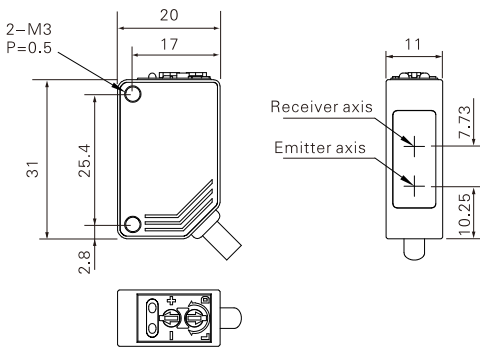
NEW!

Appearance

Sensing type	Diffuse reflection		Convergent reflective	
Sensing distance	30cm	100cm	14cm	
Output type	NPN/PNP Open-collector			
Switch type	Selectable L.on/D.on			
Response time	< 1ms			
Light source	Infrared light LED(940nm modulation)			
Operating voltage	10~30V DC			
No-load supply current	≤20mA			
Load current	≤100mA(24V DC)			
Ambient temperature	-20°C~+55°C, No freezing			
Ambient humidity	35%~85%RH, No condensation			
Protective circuit	Power reverse polarity, output reverse polarity, surge, short circuit			
Degree of protection	IP65			
Material	PBT+Fiberglass (Housing) , PMMA (Lens)			
Connection method	2M 3core cable			
Weight	≈50g			
Accessories	Screwdriver			
Model No.	NPN	PTV-D30N HOT	PTV-D70N	PTV-X09N
	PNP	PTV-D30P	PTV-D70P	PTV-X09P

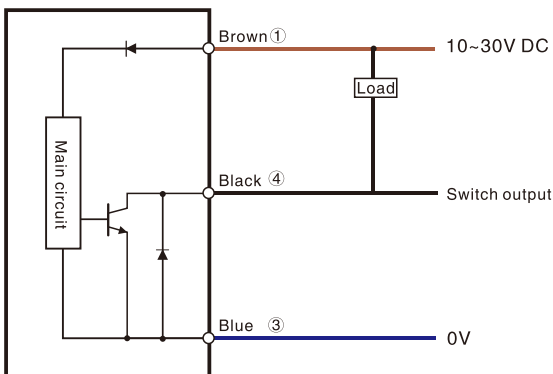
Dimensions

Unit: mm

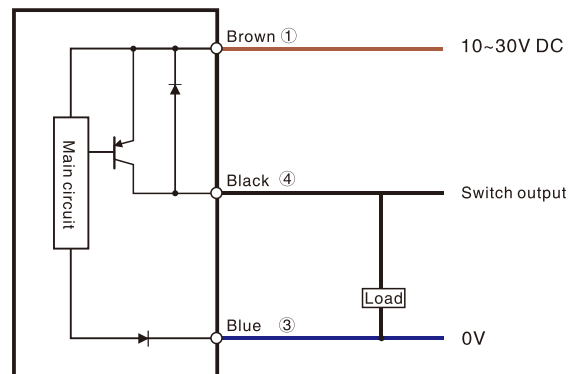


Circuit diagram

NPN Output



PNP Output



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

Guidance

Photoelectric

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

Reflectors

- Reflectors

Square

PTV Series



NEW!

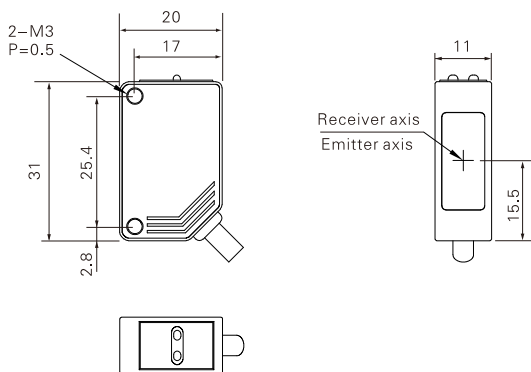
Appearance

Sensing type	Thru-beam				
Sensing distance	20m(fixed)	20m	5m		
Output type	NPN/PNP Open-collector				
Switch type	Selectable L.on/D.on, Model optional		Selectable L.on/D.on		
Response time	< 5ms				
Light source	Infrared light LED(940nm modulation)				
Operating voltage	10~30V DC				
No-load supply current	Transmitter end: ≤20mA; Receiving end: ≤20mA				
Load current	≤100mA(24V DC)				
Ambient temperature	-20°C~+55°C, No freezing				
Ambient humidity	35%~85%RH, No condensation				
Protective circuit	Power reverse polarity,output reverse polarity,surge,short circuit				
Degree of protection	IP65				
Material	PBT+Fiberglass (Housing) , PMMA (Lens)				
Connection method	2M 3core cable				
Weight	≈50g				
Accessories	Screwdriver				
Model No.	NPN	PTV-TM20NO	PTV-TM20NC	PTV-TM20AN	PTV-T500N
	PNP	PTV-TM20PO	PTV-TM20PC	PTV-TM20AP	PTV-T500P

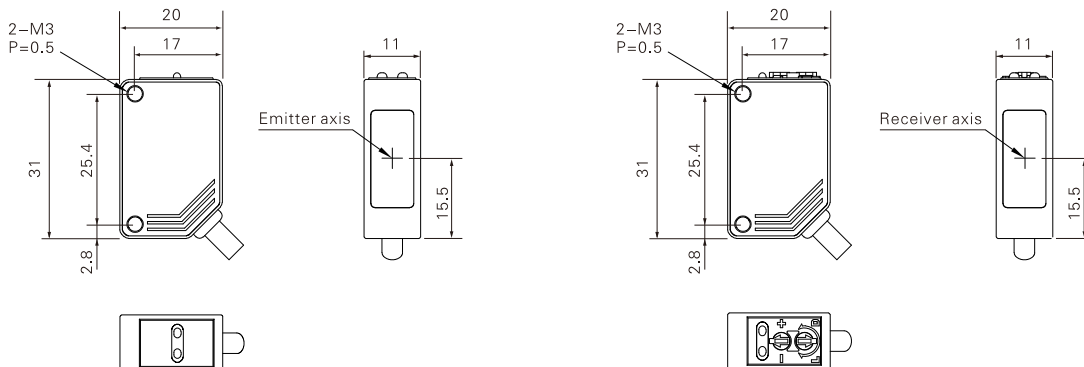
Dimensions

Unit: mm

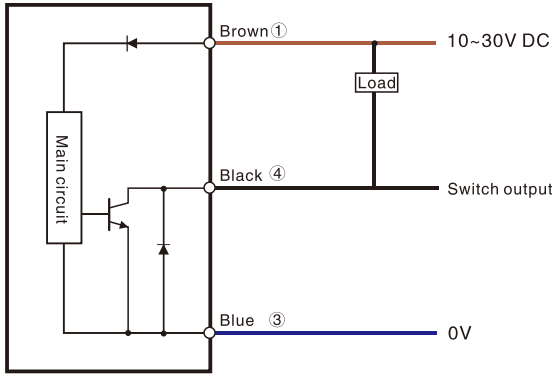
PTV-TM20NO/PO/NC/PC



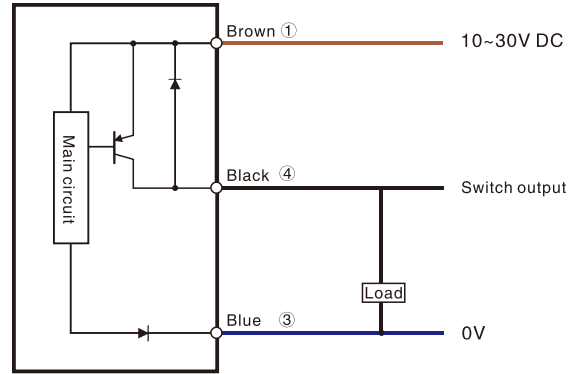
PTV-TM20AN/AP、PTV-T500N/P



NPN Output



PNP Output



Fiber Optic

Slot Sensors

Photoelectric

Laser

Proximity

Displacement

Magnetic

Contact

Area

Ultrasonic

Vision

Vibration

Temperature

Annexes

Guidance

Photoelectric

Cylindrical

Square

Flat type

Thin type

BGS

Transparent detection

Color/Mark Detection

TOF reflective

IP69K high protection type

Anti-glare type

Reflectors

Reflectors

Square

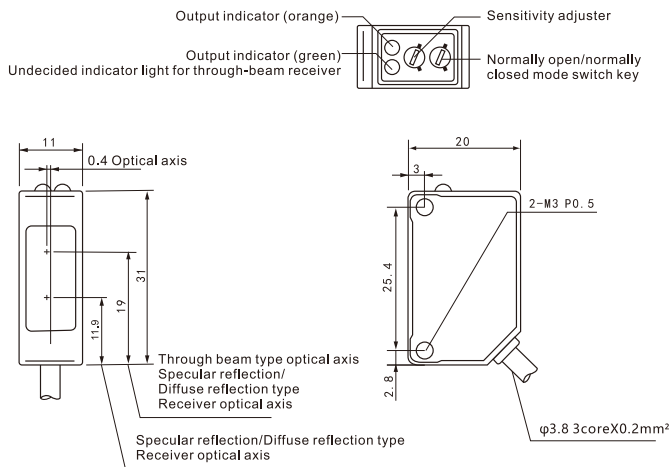
PTZ Series



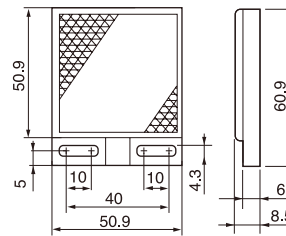
Appearance			
Sensing type	Disffuse refection	Thru-beam	Retro-reflection
Sensing distance	100cm	2000cm	400cm
Beam size	φ 75mm / 1000mm	φ 800mm / 20m	φ 200mm / 4m
Output type	NPN/PNP Open-collector, ≤ 100mA		
Switch type	Selectable L.on/D.on		
Indicator	Motion indicator:Green;Output indicator:Yellow		
Response time	0.5ms		
Sensivity adjustment	Single turn potentiometer		
Light source	Red LED 660nm		
Operating voltage	10~30V DC ± 10%		
No-load supply current	≤25mA	Emitter ≤20mA, Receiver ≤ 15mA	≤20mA
Ambient luminance	Sunlight ≤ 1000Lux, Incandescent lamp ≤ 3000Lux		
Ambient temperature	-25℃~55℃ no freezing		
Ambient humidity	35~85% RH, No coagulating		
Shock resistance	100G (1000m/s ²)		
Degree of protection	IP67		
Connection method	2M/3 core cable		
Material	ABS contain optic fiber(body);PMMA(lens)		
Accessories	None		Reflector
Model No.	NPN	PTZ-D70N HOT	PTZ-TM20N
	PNP	PTZ-D70P	PTZ-TM20P
			PTZ-R400N
			PTZ-R400P

Dimensions

Unit: mm



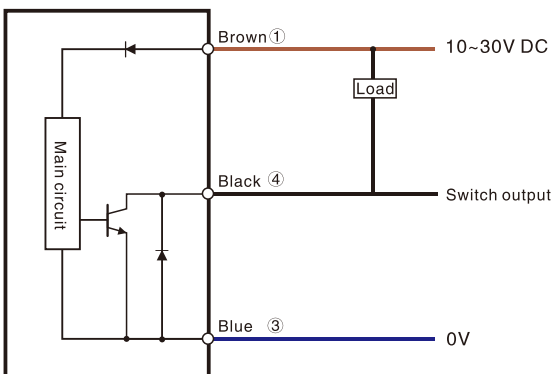
PTZ-R400 Reflector



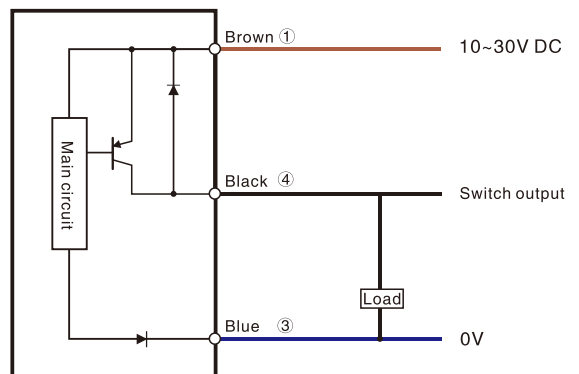
(Standard TD-11)

Circuit diagram

NPN Output



PNP Output





IO-Link
NEW!

Appearance

Sensing type	Diffuse reflection	Thru-beam reflection	Retro-reflection
Sensing distance	0~1m(white paper200X200mm)	25m	0.01~4m(with reflector)
Spot diameter	φ 75mm / 1m	φ 1800mm / 25m	φ 280mm / 4m
Output type	NPN/PNP Open-collector, ≤100mA(30VDC)		
Switch type	L.on/D.on selectable		
Indicator	Input indicator: orange, Status indicator: green		
Response time	≤500us		
Sensitivity	Single turn adjuster		
Light source	Red light LED		
Operating voltage	10~30V DC ± 10%		
Current consumption	≤20mA	Emitter≤14mA, Receiver≤20mA	≤20mA
Hysteresis	≤20%	-	-
Function	IO-LINK		
Ambient light	Sunlight≤50000Lux, Incandescent lamp≤5000Lux		
Ambient temperature	-25℃~+55℃, no freezing		
Ambient humidity	35%~85%RH, No condensation		
Degree of protection	IP67		
Connection	3 wire 2m cable, 2 wire 2m cable for thru-beam models		
Material	ABS (housing) +PMMA (window)		
Accessories	-		
Model No.	NPN	PTZ-D70N-C	PTZ-TM25N-C
	PNP	PTZ-D70P-C	PTZ-TM25P-C
			PTZ-R400N-C
			PTZ-R400P-C

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

Guidance

Photoelectric

Cylindrical

Square

Flat type

Thin type

BGS

Transparent detection

Color/Mark Detection

TOF reflective

IP69K high protection type

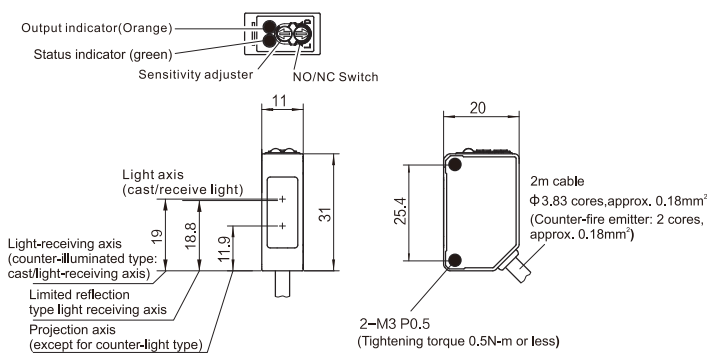
Anti-glare type

Reflectors

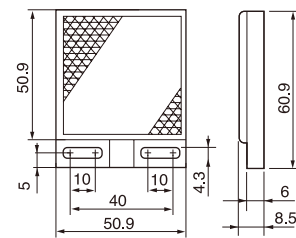
Reflectors

尺寸规格

单位: mm



Reflector for PTZ-R400-C

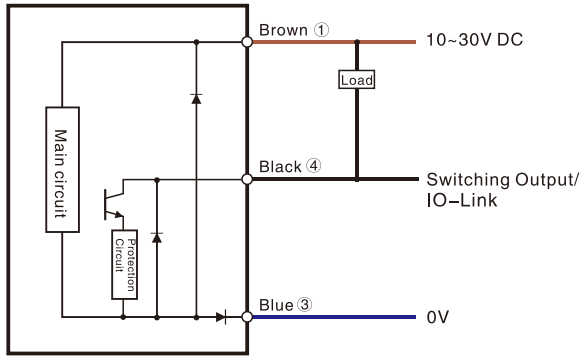


(Optional TD-11)

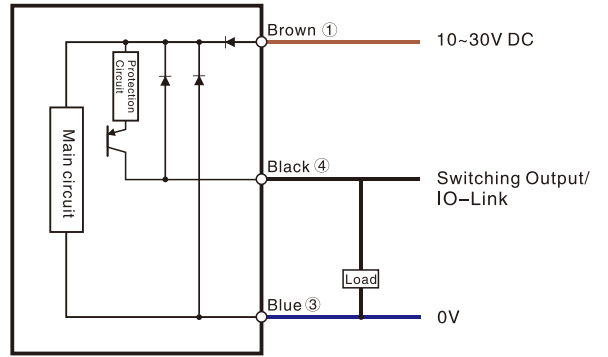
Square

Circuit diagram

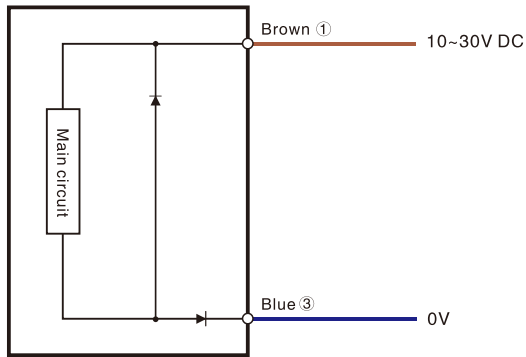
NPN Output



PNP Output



Opposed-fire Launcher



Guidance

Photoelectric

Cylindrical

Square

Flat type

Thin type

BGS

Transparent detection

Color/Mark Detection

TOF reflective

IP69K high protection type

Anti-glare type

Reflectors

Reflectors

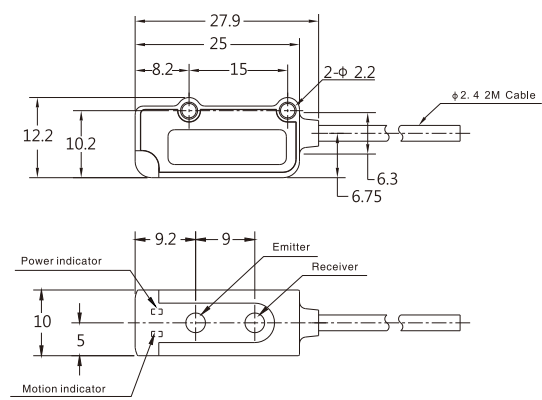


Appearance		
Sensing type	Diffuse reflection	Thru-beam
Sensing distance	5cm, White board 100*100mm (> 5cm)	50cm
Output type	NPN/PNP Open-collector	
Switch type	L.on	D.on
Response time	≤ 1 ms	
Light source	Infrared light LED (940nm)	
Operating voltage	12~24V DC ± 10%	
Current consumption	≤ 20mA	≤ 30mA
Load current	≤ 100mA (24V DC)	
Protective circuit	Reverse polarity, short circuit	
Ambient temperature	-10°C ~ +45°C, No freezing	
Ambient humidity	35% ~ 85% RH, No condensation	
Storage temperature	-10°C ~ +55°C, No freezing	
Storage humidity	35% ~ 95% RH, No condensation	
Voltage withstandability	1000 V/AC 50/60Hz 1min	
Insulation resistance	≥ 20MΩ/500V DC	
Degree of protection	IP64	
Material	ABS	
Connection method	φ 2.4*2M 3core cable	(Receiver) φ 2.4*2M 3core cable/ (Emitter) φ 2.4*2M 3core cable
Weight	≈ 20g	≈ 40g
Model No.	NPN PNP	PTN-D05N PTN-D05P
		PTN-T50N PTN-T50P

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

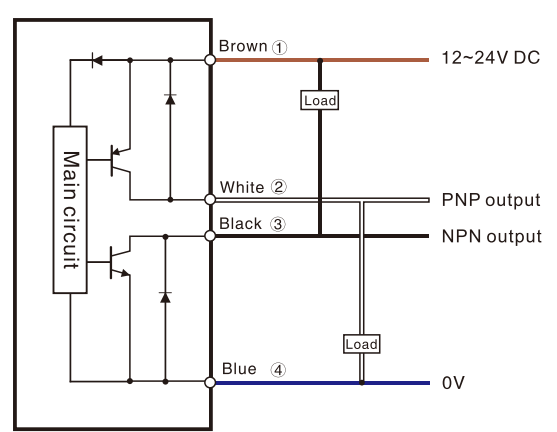
Dimensions

Unit: mm



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

Circuit diagram



- Reflectors
- Reflectors

Square

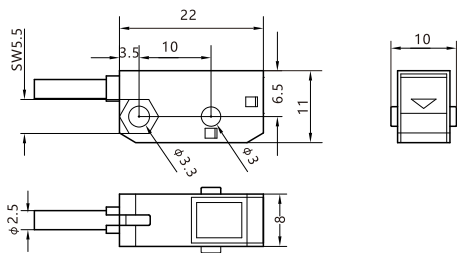
PTJ-I Series



Appearance			
Sensing type	Thru-beam		
Sensing distance	80cm (fixed)	150cm (fixed)	
Standard test object	Opaque objects above ϕ 6mm		
Output type	NPN/PNP Open-collector		
Switch type	Selectable L.on/D.on, Model optional		
Response frequency	150Hz		
Indicator	Transmitter: Power indicator: green; Receiver: Action indicator: yellow		
Light source	Infrared LED 850nm (Modulated)		
Operating voltage	12~24V DC		
Residual voltage	2V or less (when the current is 50mA)		
Current consumption	The transmitting end < 15mA, Receiving end < 15mA		
Load current	< 50mA		
Protective circuit	Reverse polarity, short circuit		
Ambient brightness	Sunlight \leq 10000Lux, Incandescent lamp \leq 3000Lux		
Ambient temperature	-20°C~+50°C, No freezing		
Voltage drop	35~90% RH, Storage: 35~90% RH		
Storage temperature	-30°C~+70°C, No freezing		
Voltage withstandability	\geq 20M Ω /500V DC		
Pressure strength	AC1000V(50/60Hz)1minute		
Shock resistance	10~55Hz reciprocating amplitude 1.5mm, X, Y, Z directions 2 hours		
Impact resistant	500m/s ² XYZ three directions		
Degree of protection	IP 64		
Housing Material	PC/ABS		
Connection method	2M 3core cable		
Model No.	NPN D.on	PTJ-T80NO-I	PTJ-T150NO-I
	NPN L.on	PTJ-T80NC-I	PTJ-T150NC-I
	PNP D.on	PTJ-T80PO-I	PTJ-T150PO-I
	PNP L.on	PTJ-T80PC-I	PTJ-T150PC-I

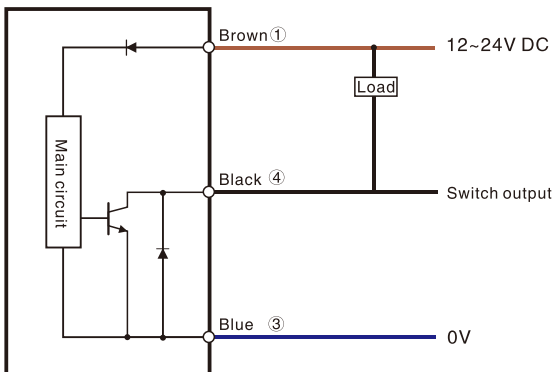
Dimensions

Unit: mm



Circuit diagram

NPN Output



PNP Output

