

Square

PTE Series



NEW!

Economical Type



Basic Features	Working Principle	Photoelectric Sensor		
	Housing Style	Square		
	Optical Working Principle	Diffuse Reflection		Retro-reflective Type
	Detection Range	5~300mm(Matte White Paper)	1~1000mm(Matte White Paper)	0.5~150mm
	Spot Size	at 50cm: 1cm x 1cm	at 50cm: 1.8cm x 1.6cm	1cm(150mm)
	Detected Object	≤5mm		—
	Light Source	Infrared LED 940nm		Red LED 660nm
	Indicator Light	Operation Indicator: Green; Action Indicator: Red		
	Sensitivity Adjustment	6-turn Potentiometer		
Electrical data	Switching Mode	L.on (light-on action)/D.on (dark-on action) switchable		
	Output Mode	NPN or PNP collector open		
	Response Time	≤2.5ms	≤1.6ms	≤1ms
	Switching Frequency	2000Hz	300Hz	≥500Hz
	Repeatability	≤5%SN		≤15%
	Hysteresis	<15%Sr		
	Operating Voltage	10~30V DC		
	Current Consumption	≤20mA	≤25mA	≤20mA
	Residual Voltage	<1.5V		
	Load Current	100mA		
	Insulation Resistance	20MΩ		
	Withstand Voltage	≤0.1mA (1000V AC)		
	Protection Circuit	Reverse Polarity Protection/Short Circuit Protection/ surge protection		
Environmental conditions	Operating Temperature	-25~55℃(No Freezing)		
	Storage Temperature	-30~+70℃		
	Operating Humidity	35~85%RH(No Condensation)		
	Storage Humidity	35~95%RH		
	Ambient Light	Incandescent Lamp ≤ 3000 Lux; Sunlight ≤ 10000 Lux		
	Vibration Resistance	10~55Hz, amplitude 1.5mm, 2 hours each in X/Y/Z axes		
	Protection Rating	IP67		
Mechanical data	Maximum Tightening Torque	≤0.1Nm	≤0.5Nm	
	Connection Method	2m/4-core cable,Ø4mm		
	Dimensions	20.0x31.0x11.0mm		
	Material	PBT+Glass Fiber		
	Weight	0.05kg		
	Accessories	Screwdriver		
Model	NPN	PTE-DV30NR	PTE-DV100NR	PTE-XE15NR
	PNP	PTE-DV30PR	PTE-DV100PR	PTE-XE15PR

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Basic Features	Working Principle	Photoelectric Sensor	
	Housing Style	Square	
	Optical Working Principle	Retroreflective	
	Detection Range	2m	3m
	Spot Size	At 2m: 4cm x 4cm	
	Detected Object	18mm	
	Light Source	Red LED 660nm(modulated)	
	Indicator Light	Light Source Indicator Light: Green; Action Indicator Light: Red	Operating indicator light: green, Action indicator light: red
	Sensitivity Adjustment	Single-turn potentiometer	
Electrical data	Switching Mode	L.on (light-on action)/D.on (dark-on action) switchable	
	Output Mode	NPN or PNP collector open	
	Response Time	≤1ms	
	Switching Frequency	2Khz	
	Repeatability	-	
	Hysteresis	-	
	Operating Voltage	10~30V DC	
	Current Consumption	≤21mA	
	Residual Voltage	<1.5V (Load Current ≤ 100mA)	
	Load Current	≤100mA	
	Insulation Resistance	-	20MΩ
	Withstand Voltage	-	0.1mA(1000VAC)
	Protection Circuit	Reverse Polarity Protection/Short Circuit Protection/surge protection	
Environmental conditions	Operating Temperature	-25~55℃(No Freezing)	
	Storage Temperature	-30~70℃(No Freezing)	
	Operating Humidity	35~85%RH(No Condensation)	
	Storage Humidity	35~95%RH	
	Ambient Light	Incandescent Lamp ≤ 3000 Lux; Sunlight ≤ 10000 Lux	
	Vibration Resistance	10~50Hz, amplitude 1.5mm, 2 hours each in X/Y/Z axes	10~50Hz, amplitude 0.5mm, 2 hours each in X/Y/Z axes
	Protection Rating	IP67	
Mechanical data	Maximum Tightening Torque	≤0.5Nm	
	Connection Method	2m/3-core cable, Ø4mm	
	Dimensions	20.0x31.0x11.0mm	
	Material	PBT	
	Weight	0.050kg	
	Accessories	Screwdriver, Bracket, Screws and Nuts	
Model	NPN	PTE-RM2N	PTE-RM3N
	PNP	PTE-RM2P	PTE-RM3P

Fiber Optic

Slot Sensors

Photoelectric

Laser

Proximity

Displacement

Magnetic

Contact

Area

Ultrasonic

AI Image

Code Readers

Vibration

Temperature

RFID

Safety door lock

Pressure Switch

Communication

Accessories

Guidance**Photoelectric**

Cylindrical

IP69K high protection type

Square

Flat type

Thin type

BGS

Color/Mark Detection

TOF type

Reflectors

Reflectors

Square

PTE Series



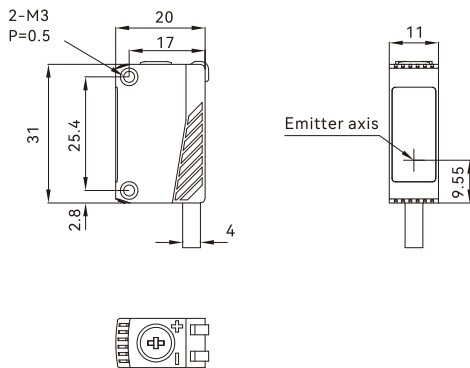
NEW!

Economical Type

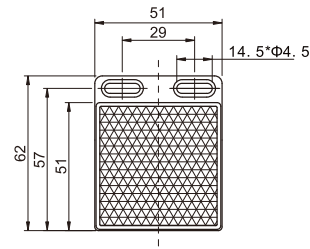


Basic Features	Working Principle	Photoelectric Sensor
	Housing Style	Square
	Optical Working Principle	Through-beam
	Detection Range	10m
	Spot Size	at 1m: 4cm x 4cm
	Detected Object	Ø60mm
	Light Source	Infrared LED
	Indicator Light	Operation Indicator: Green; Action Indicator: Red
	Sensitivity Adjustment	None
Electrical data	Switching Mode	L.on (light-on action)/D.on (dark-on action) switchable
	Output Mode	NPN or PNP collector open
	Response Time	≤3.4ms
	Switching Frequency	150Hz
	Repeatability	—
	Hysteresis	—
	Operating Voltage	10~30V DC
	Current Consumption	≤120mA
	Residual Voltage	< 1.5V
	Load Current	15mA
	Insulation Resistance	± 1000V 50/60Hz 60s
	Withstand Voltage	1000VAC (50/60Hz)
	Protection Circuit	Reverse Polarity Protection/Short Circuit Protection
Environmental conditions	Operating Temperature	-15~55℃(No Freezing)
	Storage Temperature	-30~70℃
	Operating Humidity	35~90%RH(No Condensation)
	Storage Humidity	35~95%RH
	Ambient Light	LED Lamp ≤ 10000 Lux
	Vibration Resistance	10~50Hz, amplitude 0.5mm, 2 hours each in X/Y/Z axes
	Protection Rating	IP67
Mechanical data	Maximum Tightening Torque	≤0.5Nm
	Connection Method	2m/4-core cable
	Dimensions	20.0x31.0x11.0mm
	Material	PC
	Weight	0.05kg
	Accessories	Bracket, Screws
Model	NPN	PTE-TEM10NR
	PNP	PTE-TEM10PR

PTE-DV30/DV100/XE15

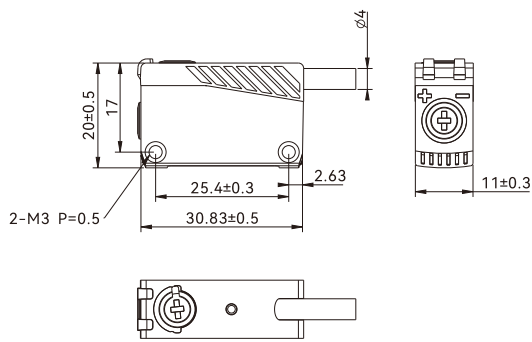


Standard TD-08

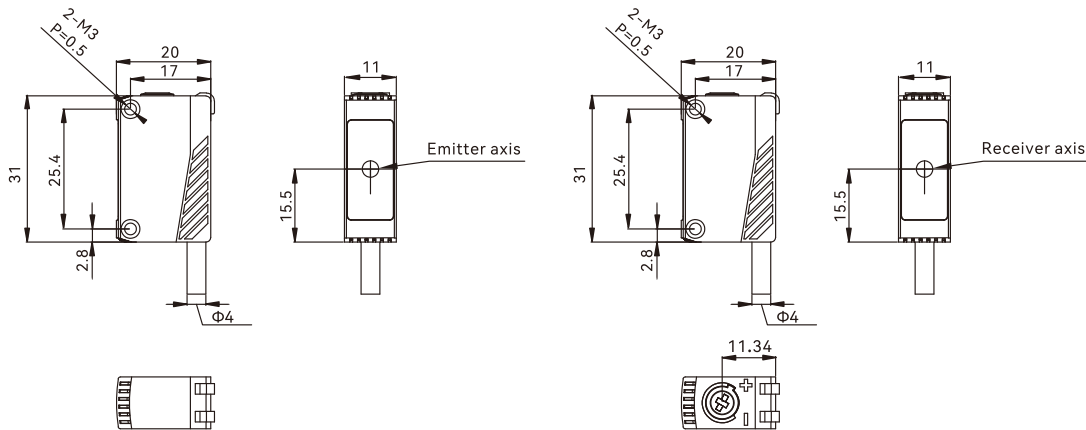


(PTE-RM2/RM3 Standard TD-08)

PTE-RM2/RM3



PTE-TEM10



Fiber Optic
Slot Sensors
Photoelectric
Laser
Proximity
Displacement
Magnetic
Contact
Area
Ultrasonic
AI Image
Code Readers
Vibration
Temperature
RFID
Safety door lock
Pressure Switch
Communication
Accessories

Guidance

Photoelectric

Cylindrical
IP69K high protection type

Square

Flat type
Thin type
BGS
Color/Mark Detection
TOF type

Reflectors

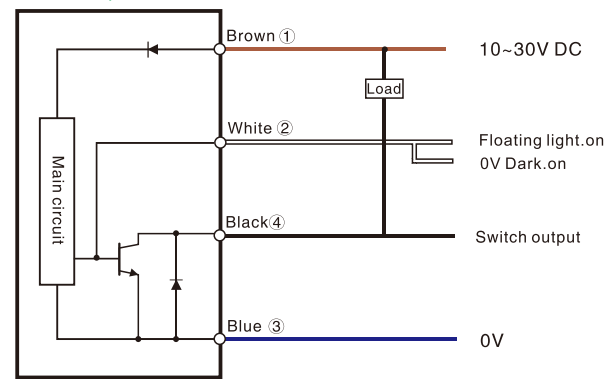
Reflectors

Square

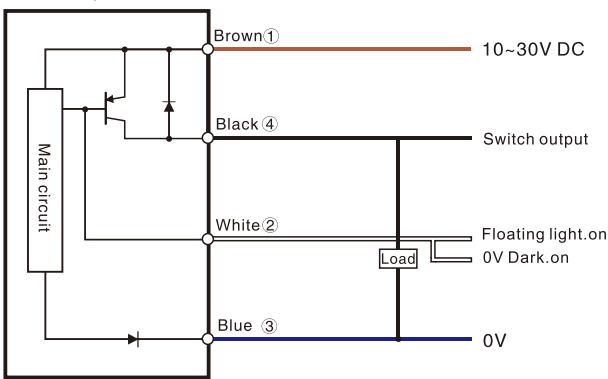
Circuit diagram

PTE-DV30/DV100/XE15/TEM10

NPN Output

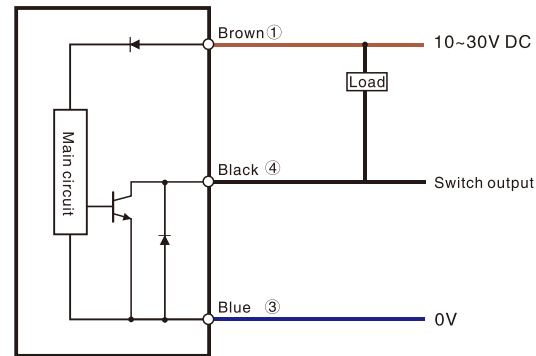


PNP Output

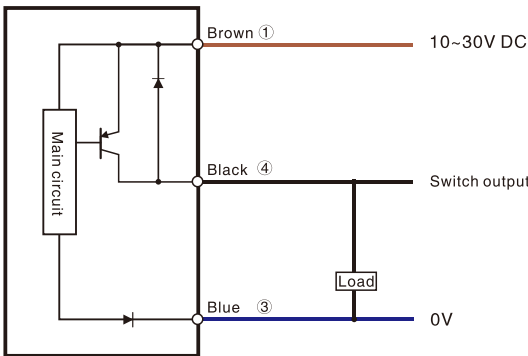


PTE-RM2/RM3

NPN Output



PNP Output



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