

Square Photoelectric Sensor

PTE

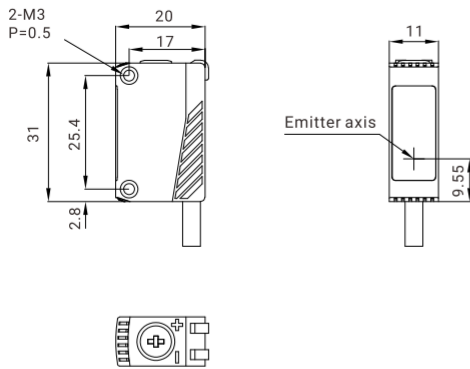
NEW!
Economical Type


Basic Features	Working Principle	Optical detection principle							
	Sensing method	Diffuse				Retro-reflective		Through-beam	
	Type	Rectangular							
	Sensing distance	5~300mm	5~1000mm	1~150mm	5~1000mm	0.05~2m	0.05~3m	10m	30m
	Spot size	-		Ø1cm/15cm	5.5x5.5cm/1m	Ø4cm/2m		4x4cm/1m	-
	Minimum sensing object diameter	-				18mm		10mm	7mm
	Light source	Infrared LED(940nm)		Red LED(660nm)					Infrared LED(940nm)
	Indicator	Running: green; Output: red							
	Sensitivity adjustment	6-turn potentiometer				1-turn potentiometer			
Electrical Data	Operation model	Light.on/Dark.on switching							
	Output model	NPN/PNP available by model							
	Response time	≤2.5ms	≤1.6ms					≤3.4ms	≤3.3ms
	Response frequency	≤200Hz	≤300Hz					≤150Hz	
	Repeatability	≤5%				-			
	Hysteresis	≤20%				-			
	Operating Voltage	10~30V ±10%							
	No load current	≤20mA	≤25mA	≤20mA		≤25mA		≤15mA	≤20mA
	Voltage drop	< 1.5V							
	Load current	≤100mA							
	Insulation resistance	≥50MΩ/500V DC							
	Dielectric strength	1000V AC at 50/60Hz for 1 min							
	Protection Circuit	Reverse Polarity Protection/ Surge protection/ Short-circuit 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 (No Condensation)							
Ambient illumination		Incandescent lamps≤1,000lux; Sunlight≤10,000lux							
Vibration resistance		10~55Hz, 1.5mm double amplitude for 2hours each in X/Y/Z directions							
Enclosure rating		IP67							
Mechanical Data	Tightening torque, max.	0.5N.m							
	Connection	2m/4-wire Cable			2m/3-wire Cable			2m/4-wire Cable	
	Dimensions (WxHxD)	20.0x31.0x11.0mm							
	Material	PBT							
	Weight	50g					93g		
Model	Accessories	Nuts, Bracket, Screwdriver				Nuts, Bracket, Screwdriver, Reflector		Nuts, Bracket, Screwdriver	
	NPN	PTE-DV30NR	PTE-DV100NR	PTE-DE15NR	PTE-DE100AN	PTE-RM2AN	PTE-RM3AN	PTE-TEM10NR	PTE-TVM30NR
	PNP	PTE-DV30PR	PTE-DV100PR	PTE-DE15PR	PTE-DE100AP	PTE-RM2AP	PTE-RM3AP	PTE-TEM10PR	PTE-TVM30PR

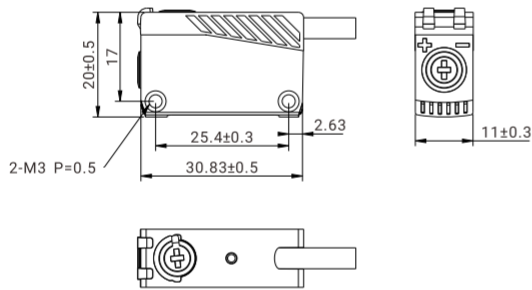
Unit: mm

Dimensions

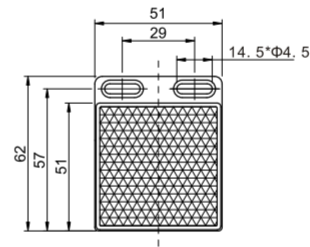
PTE-DV30/DV100/XE15



PTE-RM2/RM3

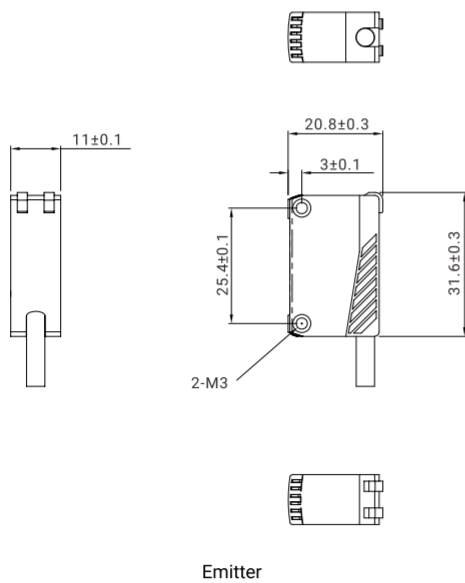


Standard TD-08

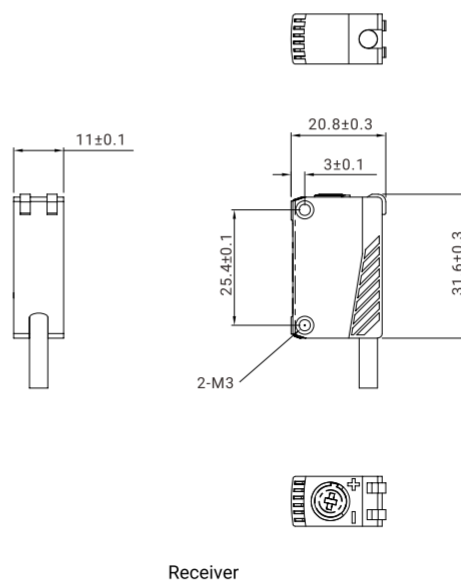


(PTE-RM2/RM3 Standard TD-08)

PTE-TEM10



Emitter



Receiver

- Fiber Optic
- Fork
- Photoelectric
- Inductive
- Capacitive
- Magnetic
- Contact
- Ultrasonic
- Curtains

Selection Guide

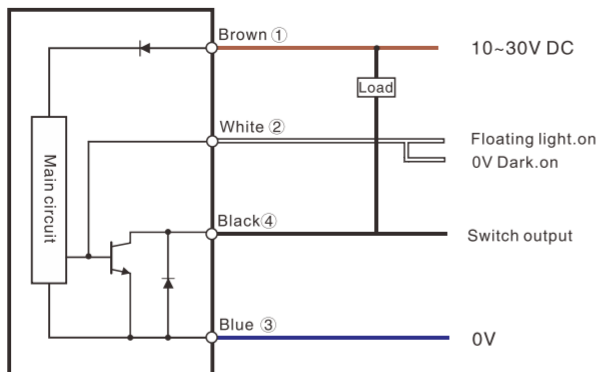
- Cylindrical
- Rectangular
- Ultra-slim
- BGS
- Time-of-Flight
- IP69K
- Reflector

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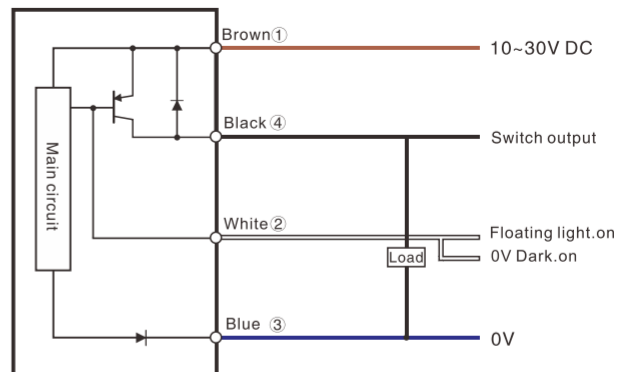
Circuit diagram

PTE-DV30/DV100/DE15

NPN Output

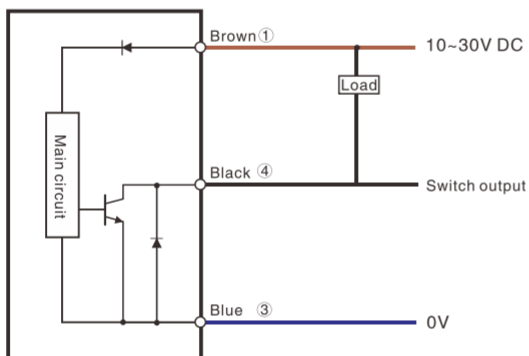


PNP Output

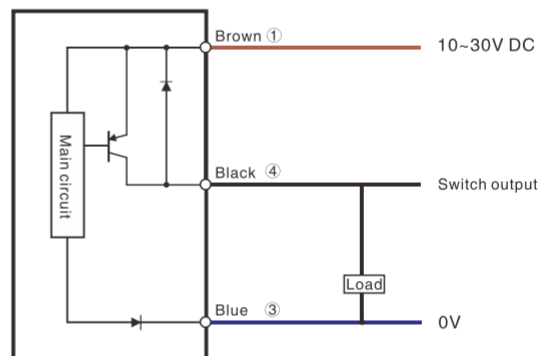


PTE-DE100/RM2/RM3

NPN Output

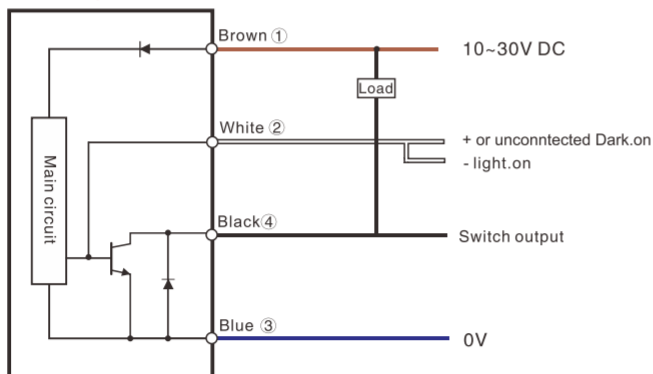


PNP Output

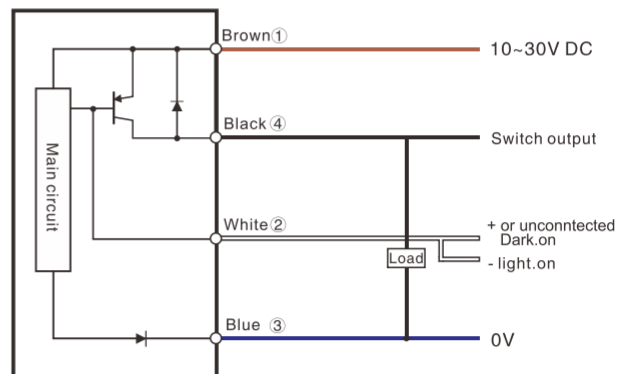


PTE-TEM10/TVM30

NPN Output



PNP Output



Transmitter

