



Economical Type

NEW!



Basic Features	Working Principle	Photoelectric Sensor		
	Housing Style	Square		
	Optical Working Principle	Background suppression diffuse reflection		
	Detection Range	20~350mm	20~400mm	20~800mm
	Light Source	Red laser, 650nm (modulated), Class 2		
	Spot Size	Ø3.5mm/350mm	about Ø1.5mm/400mm	—
	Detected Object	Ø0.5mm		
	Indicator Light	Operating indicator light: green; Output indicator light: 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	≤1.2ms		1.2ms
	Switching Frequency	1kHz	—	
	Repeatability	≤5%	—	
	Hysteresis	≤5%		
	Operating Voltage	10~30VDC ± 10%		
	Current Consumption	≤20mA		
	Residual Voltage	<1.5V		
	Load Current	≤100mA	100mA	
	Insulation Resistance	≥20MΩ(500V DC)	≥20MΩ(250V DC)	
	Withstand Voltage	1000VAC (50/60Hz)		
	Protection Circuit	Reverse polarity protection/short-circuit protection		Reverse connection protection/short-circuit protection
	Environmental conditions	Operating Temperature	-10~-55℃(no freezing)	
Storage Temperature		-30~70℃(no freezing)		
Operating Humidity		35~85%RH(no condensation)		
Storage Humidity		35~95%RH(no condensation)		
Ambient Light		Incandescent light ≤1000 Lux; LED light ≤600 Lux; Sunlight ≤20000 Lux		
Vibration Resistance		10~55Hz, amplitude 1.5mm, 2 hours each in X/Y/Z axes		
Protection Rating		IP65		
Mechanical data	Maximum Tightening Torque	≤0.5Nm		
	Connection Method	2m/4-core cable		
	Dimensions	11.0x31.0x20.0mm		
	Material	PBT+glass fiber (housing); PMMA (lens)		
	Weight	about 68g		
	Accessories	Bracket, screws		
Model	NPN	ELE-B35N	ELE-B35NS02	ELE-D80NR
	PNP	ELE-B35P	ELE-B35PS02	ELE-D80PR

Fiber Optic

Slot Sensors

Photoelectric

Laser

Proximity

Displacement

Magnetic

Contact

Area

Ultrasonic

AI Image

Code Readers

Vibration

Temperature

RFID

Safety doorlock

Pressure Switch

Communication

Accessories

Guidance

Laser sensors

Square

Square

ELE Series



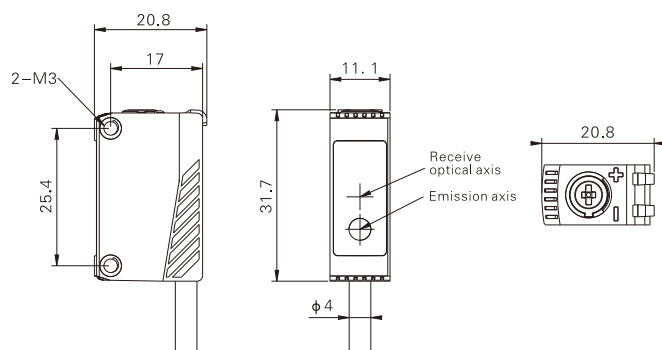
Economical Type

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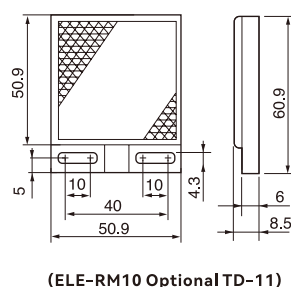


Basic Features	Working Principle	Photoelectric Sensor	
	Housing Style	Square	
	Optical Working Principle	Retroreflective	Through-beam
	Detection Range	10m	50m
	Light Source	Red laser, 650nm (modulated), Class 2	
	Spot Size	≤15mmx15mm at 10m	≤25.5mmx29.1mm at 8m
	Detected Object	≤0.5mm	
	Indicator Light	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	≤1.7ms
	Switching Frequency	0.5kHz	0.3kHz
	Repeatability	≤5%	
	Hysteresis	≤20%	
	Operating Voltage	10~30VDC	
	Current Consumption	≤20mA	Receiver: ≤20mA, Emitter: ≤10mA
	Residual Voltage	<1.5V	
	Load Current	≤100mA(30VDC)	
	Insulation Resistance	≥50MQ(500VDC)	
	Withstand Voltage	AC 1000V 50/60Hz 60S	
	Protection Circuit	Reverse polarity protection/short-circuit protection	Reverse polarity protection/ surge protection/short-circuit protection
Environmental conditions	Operating Temperature	-25~55°C(no freezing/no condensation)	
	Storage Temperature	-30~70°C(no freezing)	
	Operating Humidity	35~85%RH(no condensation)	
	Storage Humidity	35~95%RH	
	Ambient Light	LED light ≤1000 Lux	Incandescent light ≤3000 Lux; LED light ≤3000 Lux
	Vibration Resistance	10~50Hz, amplitude 0.5mm, 2 hours each in X/Y/Z axes	
	Protection Rating	IP67	IP65
	Maximum Tightening Torque	≤0.5Nm	
Mechanical data	Connection Method	2m/3-core cable	
	Dimensions	11.0x31.0x20.0mm	
	Material	PBT+glass fiber	
	Weight	about 70g	
	Accessories	Screwdriver, reflector, mounting bracket, screws	Screwdriver, mounting bracket, screws
	Model	NPN	ELE-RM10AN
		PNP	ELE-TM50AP

ELE-B35/B35NS02/D80/RM10

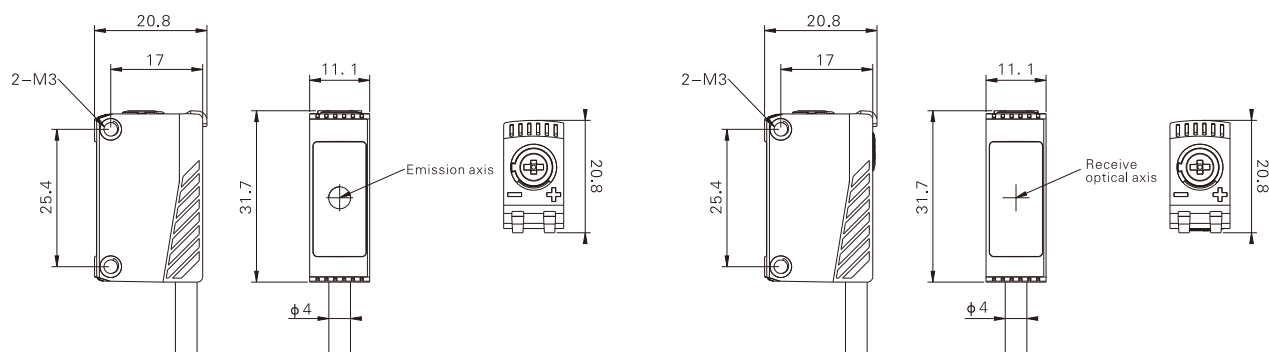


Reflector TD-11



(ELE-RM10 Optional TD-11)

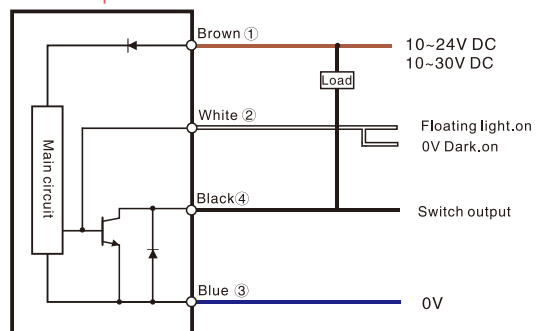
ELE-TM50



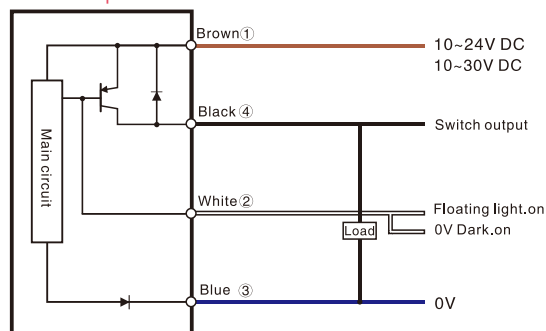
Circuit diagram

ELE-B35/B35N(P)S02/D80

NPN Output

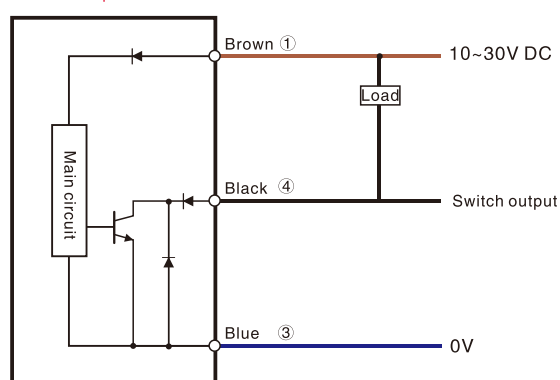


PNP Output

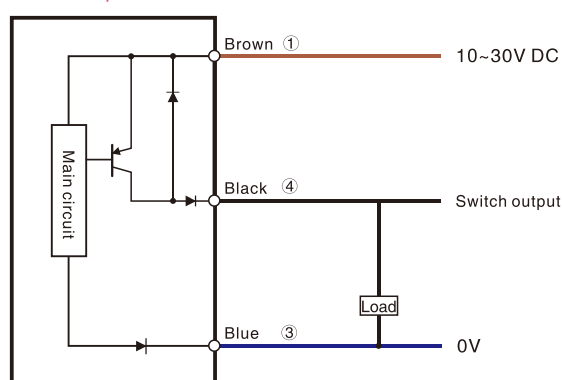


ELE-RM10/TM50

NPN Output



PNP Output



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Square