



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	10~24VDC ± 10%	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°C(no freezing)	
Storage Temperature		-30~70°C(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

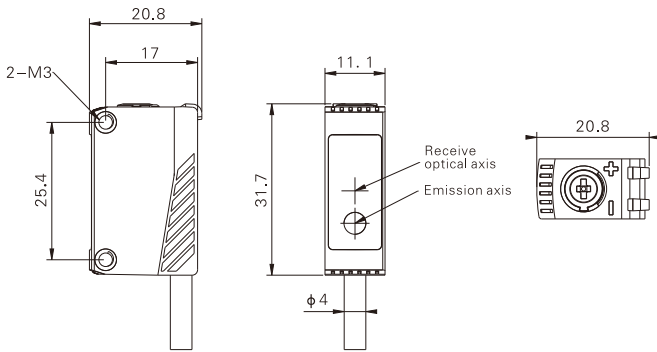
NEW!



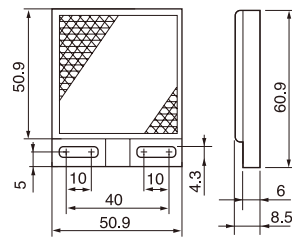
Basic Features	Working Principle	Photoelectric Sensor		
	Housing Style	Square		
	Optical Working Principle	Retroreflective	Through-beam	
	Detection Range	10m	50m	
	Light Source	Red laser, 650nm (modulated), Class 2		
	Spot Size	≤15mmx15mm at 10m	≤25.5mmx29.1mm at 8m	
	Detected Object	≤0.5mm		
	Indicator 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	
Mechanical data	Maximum Tightening Torque	≲0.5Nm		
	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	ELE-TM50AN	
	PNP	ELE-RM10AP	ELE-TM50AP	

Unit: mm

ELE-B35/B35NS02/D80/RM10

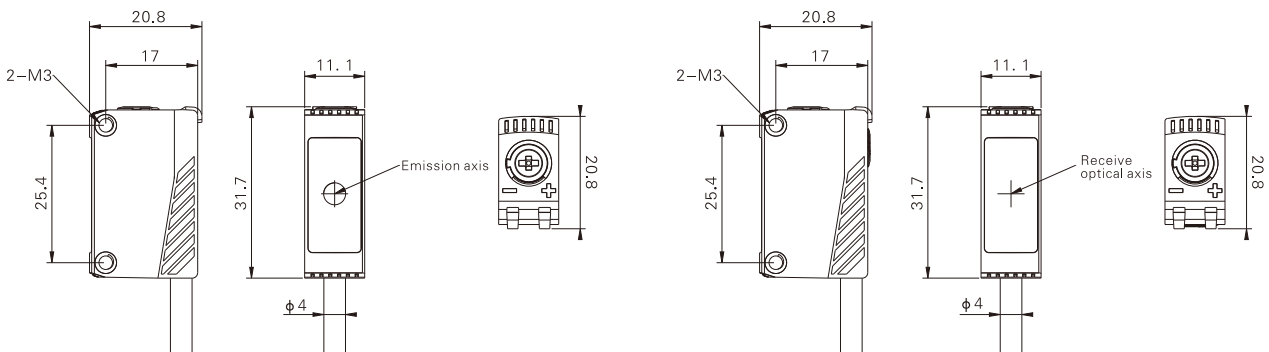


Reflector TD-11



(ELE-RM10 Optional TD-11)

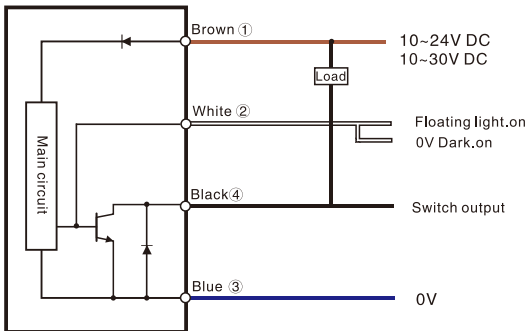
ELE-TM50



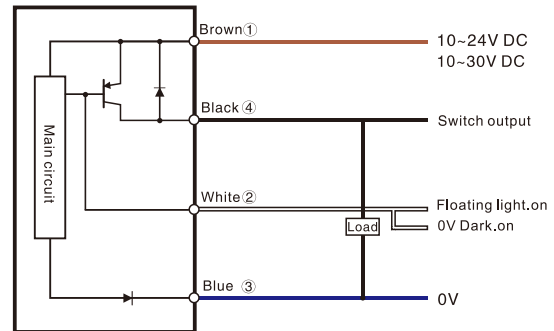
Circuit diagram

ELE-B35/B35N(P)S02/D80

NPN Output

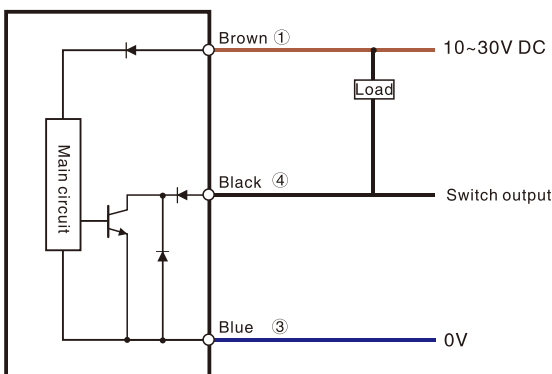


PNP Output

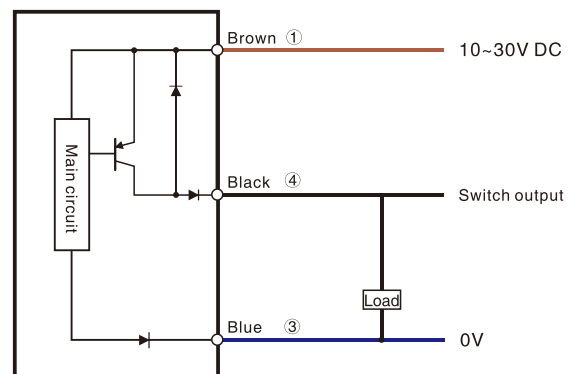


ELE-RM10/TM50

NPN Output



PNP Output



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