

Reflectors

For the complete list of reflectors refer to E26E accessory datasheet.

Shape	Type	Housing material	Features	Size in mm	Order code
	General purpose reflectors	ABS base Acrylic surface	Surface screw mounting (diagonal holes)	40x60x7.5	E39-R1S
	Enhanced detergent resistance	PVC	Surface screw mounting IP69k after DIN 40050 part 9	40x60x7.5	E39-R50
				20x60x6	E39-R51
	Highest detergent resistance	SUS316L Borosilicat	Surface screw mounting	43x30x5	E39-R16
	Special polarizing	ABS base PMMA surface	Special polarizing filter for PET bottles - in combination with E3ZM-B models for PET only	44x80x8.5	E39-RP1

Ratings and Specifications

Item	Optimised for PET	For all transparent objects
	E3ZM-B_	E3ZM-B_T
Sensing distance	0 to 500 mm (Using E39-RP1); min distance to reflector: 100 mm	
Standard sensing object	500-ml, transparent, round PET bottle (65-mm dia.)	
Directional angle	Sensor: 3° to 10° Reflector: 30°	
Light source (wavelength)	Red LED (650 nm)	
Power supply voltage	10 to 30 VDC, including 10% ripple (p-p)	
Current consumption	450 mW max. (15 mA at 30 VDC)	25 mA max.
Control output	Load power supply voltage: 30 VDC max., Load current: 100 mA max. (Residual voltage: 2 V max.) Open-collector output (NPN/PNP output depending on model)	
Operating modes	Light-ON/Dark-ON selectable by wire	Light-ON/Dark-ON switch selectable
Protective circuits	Reversed power supply polarity, load short-circuit protection, mutual interference prevention, reversed output polarity protection	
Response time	Operation or reset: 1 ms max.	
Sensitivity adjustment	Teach button	one-turn adjuster
Ambient illumination	Incandescent lamp: 3,000 lx max., Sunlight: 10,000 lx max.	
Ambient temperature range	Operating: -40 to 60°C (*1), Storage: -40 to 70°C (with no icing or condensation)	Operating: -25 to 55°C Storage: -40 to 70°C (with no icing or condensation)
Ambient humidity range	Operating: 35% to 85%, Storage: 35% to 95% (with no condensation)	
Insulation resistance	20 MΩ min. at 500 VDC	
Dielectric strength	1,000 VAC, 50/60 Hz for 1 min	
Vibration resistance	Destruction: 10 to 55 Hz, 1.5-mm double amplitude for 2 hours each in X, Y, and Z directions	
Shock resistance	Destruction: 500 m/s ² 3 times each in X, Y, and Z directions	
Degree of protection	IEC 60529: IP67, DIN 40050-9: IP69K (*2)	
Connection method	Pre-wired cable (standard length: 2 m) or M8 4-pin connector	
Indicator	Operating indicator (yellow), Stability indicator (green), and Teaching indicator (red)	
Weight (packed state)	Pre-wired models: Approx. 90 g Connector models: Approx. 40 g	
Materials	Housing	SUS316L
	Lens	PMMA (polymethylmethacrylate)
	Indicator	PES (polyethersulfone)
	Buttons/adjusters	Fluoro rubber
	Cable	PVC (polyvinyl chloride)
Accessories	Instruction sheet, (special reflector E39-RP1 for E3ZM-B_-C only) *4	

*1. Do not bend the cable in temperatures of -25°C or lower.

*2. IP69K Degree of protection specification (for measures for improving the protection against water ingress see page 9).
IP69K is a protection standard against high temperature and high-pressure water defined in the German standard DIN 40050, Part 9. The test piece is sprayed with water at 80°C at a water pressure of 80 to 100 BAR using a specified nozzle shape at a rate of 14 to 16 liters/min.

The distance between the test piece and nozzle is 10 to 15 cm, and water is sprayed horizontally for 30 seconds each at 0°, 30°, 60°, and 90° while rotating the test piece on a horizontal plane.

*4 For reflectors and mounting brackets refer to Accessories.

