

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	PEEK (polyetheretherketone)	
	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.

