

Photoelectric sensor in compact stainless steel housing

E3ZM

- Compact size SUS 316L housing for highest mechanical protection
- Tested detergent and chemical resistance (certified by Henkel-Ecolab)
- Watertight construction for highest protection when cleaned with high pressure

IP67
IP69K



Application

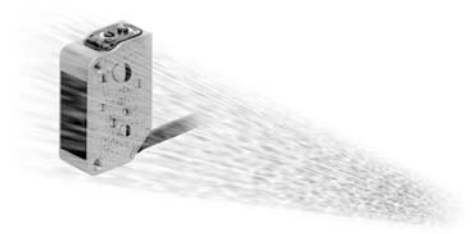
Detergent resistance

proven in intensive testing



Product name	Concentration	Temperature	Time
Sodium hydroxide (NaOH)	1.5 %	70 °C	240 h
Potassium hydroxide (KOH)	1.5 %	70 °C	240 h
Phosphoric acid (H ₃ PO ₄)	2.5 %	70 °C	240 h
Sodium hypochlorite (NaClO)	0.3 %	25 °C	240 h
Hydrogen peroxide (H ₂ O ₂)	6.5 %	25 °C	240 h
P3-topax-66s (Manufactured by Ecolab)	3.0 %	70 °C	240 h
P3-topax-56 (Manufactured by Ecolab)	5.0 %	70 °C	240 h
P3-oxonia active 90 (Manufactured by Ecolab)	1.0 %	25 °C	240 h
TEK121 (Manufactured by ABC Compounding)	1.1 %	25 °C	240 h

Product concept for highest machine hygiene and often cleaned environments.



Waterproofing ring: Fluorine rubber

Excellent resistance to detergents and disinfectants.

Optical plate: Methacrylic resin (PMMA)

Excellent resistance to detergents and disinfectants. High transparency and other qualities give PMMA excellent optical characteristics.

Seal

The seal provides the resistance to high-temperature and high-pressure water that complies with IP69K.

Indicator cover: Polyether Sulfone (PES)

Excellent resistance to detergents and disinfectants.

Sensitivity adjustment and operation switch: Polyether etherketone (PEEK)

Excellent resistance to detergents and disinfectants. Also has excellent abrasion resistance.

Case: SUS316L

Excellent corrosion resistance to many chemical reagents.

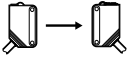
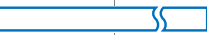
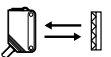
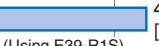
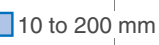
Cable: Vinyl chloride

Excellent resistance to detergents and disinfectants.

Ordering Information

Sensors

Red light Infrared light

Sensor type	Appearance	Connection method	Sensing distance	Model	
				NPN output	PNP output
Through-beam *1		Pre-wired (2 m) *2	 15m	E3ZM-T61	E3ZM-T81
		Connector type (M8, 4 pins) *3		E3ZM-T66	E3ZM-T86
		Pre-wired (2 m) *2	 0.8 m with built-in slits	E3ZM-T63	E3ZM-T83
		Connector type (M8, 4 pins) *3		E3ZM-T68	E3ZM-T88
Retroreflective (with M.S.R. function)		Pre-wired (2 m) *2	 4m [100mm] (Using E39-R1S)	E3ZM-R61	E3ZM-R81
		Connector type (M8, 4 pins) *3		E3ZM-R66	E3ZM-R86
Diffuse-reflective		Pre-wired (2 m) *2	 1m	E3ZM-D62	E3ZM-D82
		Connector type (M8, 4 pins) *3		E3ZM-D67	E3ZM-D87
BGS reflective (fixed distance)		Pre-wired (2 m) *2	 10 to 100 mm	E3ZM-LS61H	E3ZM-LS81H
		Connector type (M8, 4 pins) *3		E3ZM-LS66H	E3ZM-LS86H
		Pre-wired (2 m) *2	 10 to 150 mm	E3ZM-LS62H	E3ZM-LS82H
		Connector type (M8, 4 pins) *3		E3ZM-LS67H	E3ZM-LS87H
		Pre-wired (2 m) *2	 10 to 200 mm	E3ZM-LS64H	E3ZM-LS84H
		Connector type (M8, 4 pins) *3		E3ZM-LS69H	E3ZM-LS89H

- *1. Through-beam Models are also available with a light emission stop function. When ordering, add "-G0" to the end of the model number (e.g., E3ZM-T61-G0).
- *2. Pre-wired Models with a 5 m cable are also available for these products. When ordering, specify the cable length by adding "5M" to the end of the model number (e.g., E3ZM-LT61 5M).
- M12 Pre-wired Connector Models are also available. When ordering, add "-M1J" to the end of the model number (e.g., E3ZM-R61-M1J 0.3m).
- *3. M8 Connector Models are also available with three-pin connectors. When ordering, add "-M5" to the end of the model number (e.g., E3ZM-T66-M5). This does not apply to BGS Reflective Models, however, because they require 4 pins.
- *4. The Reflector is sold separately. Select the Reflector model most suited to the application.
- *5. Values in parentheses indicate the minimum required distance between the Sensor and Reflector..

Accessories

Reflectors

Name	E3ZM-R Sensing distance (typical) *1	Model	Quantity	Remarks
Reflector	3 m [100 mm] (rated value)	E39-R1	1	- Reflectors are not provided with Retro-reflective models. - The MSR function is enabled.
	4 m [100 mm] (rated value)	E39-R1S	1	
	5 m [100 mm]	E39-R2	1	
	2.5 m [100 mm]	E39-R9	1	
	3.5 m [100 mm]	E39-R10	1	
Fog preventing	3 m [100 mm]	E39-R1K	1	
Small reflector	1.5 m [50 mm]	E39-R3	1	
Tape Reflector	700 mm [150 mm]	E39-RS1	1	
	1.1 m [150 mm]	E39-RS2	1	
	1.4 m [150 mm]	E39-RS3	1	

*1. Values in parentheses indicate the minimum required distance between the Sensor and Reflector.

Note: 1. When using a Reflector without a rated value, use 0.7 times typical value as a guideline for the sensing distance.

2. For stainless steel and glass covered reflectors please contact your OMRON representative.