

Oil-resistive Sensors [Refer to *Dimensions on page 14.*]

 Red light Infrared light

Sensing method	Appearance	Connection method	Sensing distance	Model	
				NPN output	PNP output
Through-beam (Emitter + Receiver) *3		Pre-wired (2 m)		E3Z-T61K 2M *4 Emitter E3Z-T61K-L 2M Receiver E3Z-T61K-D 2M	E3Z-T81K 2M *4 Emitter E3Z-T81K-L 2M Receiver E3Z-T81K-D 2M
		Pre-wired M8 connector		E3Z-T61K-M3J 0.3M Emitter E3Z-T61K-L-M3J 2M Receiver E3Z-T61K-D-M3J 2M	E3Z-T81K-M3J 0.3M Emitter E3Z-T81K-L-M3J 2M Receiver E3Z-T81K-D-M3J 2M
Retro-reflective with MSR function		Pre-wired (2 m)		E3Z-R61K 2M *4	E3Z-R81K 2M
		Pre-wired M8 connector		E3Z-R61K-M3J 0.3M	E3Z-R81K-M3J 0.3M
Diffuse-reflective		Pre-wired (2 m)		E3Z-D61K 2M *4	E3Z-D81K 2M
		Pre-wired M8 connector		E3Z-D61K-M3J 0.3M	E3Z-D81K-M3J 0.3M
		Pre-wired (2 m)		E3Z-D62K 2M *4	E3Z-D82K 2M
		Pre-wired M8 connector		E3Z-D62K-M3J 0.3M	E3Z-D82K-M3J 0.3M

*1. The Reflector is sold separately. Select the Reflector model most suited to the application.

*2. The sensing distance specified is possible when the E39-R1S is used. Values in parentheses indicate the minimum required distance between the Sensor and Reflector.

*3. Through-beam Sensors are normally sold in sets that include both the Emitter and Receiver.

*4. M12 Standard Pre-wired Connector Models are also available.

When ordering, add "-M1J 0.3M" to the end of the model number (e.g., E3Z-T61-M1J 0.3M).

The cable is 0.3 m long.

Accessories (Order Separately)

Slit (A Slit is not provided with Through-beam Sensors) Order a Slit separately if required. [Refer to *Dimensions on page 16.*]

Slit width	Sensing distance		Minimum detectable object (Reference value)	Model	Contents
	E3Z-T□□	E3Z-T□□A			
0.5-mm dia.	50 mm	35 mm	0.2-mm dia.	E39-S65A	One set (contains Slits for both the Emitter and Receiver)
1-mm dia.	200 mm	150 mm	0.4-mm dia.	E39-S65B	
2-mm dia.	800 mm	550 mm	0.7-mm dia.	E39-S65C	
0.5 × 10 mm	1 m	700 mm	0.2-mm dia.	E39-S65D	
1 × 10 mm	2.2 m	1.5 m	0.5-mm dia.	E39-S65E	
2 × 10 mm	5 m	3.5 m	0.8-mm dia.	E39-S65F	

Reflectors (Reflector required for Retroreflective Sensors) A Reflector is not provided with the Sensor. Be sure to order a Reflector separately.
[Refer to *Dimensions on E39-L/E39-S/E39-R*]

Name	Sensing distance *					Model	Quantity	Remarks
	E3Z-R		E3Z-R□K	E3Z-B□1/-B□6	E3Z-B□2/-B□7			
	Rated value (sensing distance of 15 m)	Reference value (sensing distance of 10 m)	Rated value	Rated value	Rated value			
Reflector	3 m (100 mm)	---	2 m (100 mm)	---	---	E39-R1	1	• Retro-reflective models are not provided with Reflectors. • The MSR function is enabled.
	4 m (100 mm)	---	3 m (150 mm)	500 mm (80 mm)	2 m (500 mm)	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 Preventive Coating	---	3 m (100 mm)	---	500 mm (80 mm)	2 m (500 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	

Note: 1. If you use the Reflector at any distance other than the rated distance, make sure that the stability indicator lights properly when you install the Sensor.

2. Refer to *Reflectors on E39-L/E39-S/E39-R* for details.

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

Mutual Interference Protection Filter A Filter is not provided with the Sensor (for the through-beam E3Z-T□□A). Order a Filter separately if required.

Sensing distance	Appearance/Dimensions	Model	Quantity	Remarks
3 m		E39-E11	Two sets each for the Emitter and Receiver (total of four pieces)	Can be used with the E3Z-T□□A Through-beam models. The arrow indicates the direction of polarized light. Mutual interference can be prevented by altering the direction of polarized light from or to adjacent Emitters and Receivers.

Note: The polarization directions of the Filters are offset by 90° to prevent interference. When you install the Emitter and Receiver, install them at the same angle to maintain this offset.

Mounting Brackets A Mounting Bracket is not enclosed with the Sensor. Order a Mounting Bracket separately if required.

[Refer to *Dimensions* on E39-L/E39-S/E39-R]

Appearance	Model (material)	Quantity	Remarks	Appearance	Model (material)	Quantity	Remarks
	E39-L153 (SUS304) *1	1	Mounting Brackets		E39-L98 (SUS304) *2	1	Metal Protective Cover Bracket
	E39-L104 (SUS304) *1	1			E39-L150 (SUS304)	1	(Sensor adjuster)
	E39-L43 (SUS304) *2	1	Horizontal Mounting Brackets		E39-L151 (SUS304)	1	Easily mounted to the aluminum frame rails of conveyors and easily adjusted.
	E39-L142 (SUS304) *2	1	Horizontal Protective Cover Bracket				For left to right adjustment
	E39-L44 (SUS304)	1	Rear Mounting Bracket		E39-L144 (SUS304) *2	1	Compact Protective Cover Bracket (For E3Z only)

Note: 1. When using Through-beam models, order one bracket for the Receiver and one for the Emitter.

2. Refer to *Mounting Brackets* on E39-L/E39-S/E39-R for details.

*1. Cannot be used for Standard Connector models with mounting surface on the bottom. In that case, use Pre-wired Connector models.

*2. Cannot be used for Standard Connector models.

Sensor I/O Connectors (Sockets on One Cable End)

(Models for Connectors and Pre-wired Connectors: A Connector is not provided with the Sensor. Be sure to order a Connector separately.)

[Refer to *Dimensions* for XS3.]

Size	Cable	Appearance	Cable type	Model
M8 *1	Standard	Straight *3 	2 m	XS3F-M421-402-A
			5 m	XS3F-M421-405-A
		L-shaped *3 *4 	2 m	XS3F-M422-402-A
			5 m	XS3F-M422-405-A
M8	PUR (Polyurethane) cable *2	Straight *3 	2 m	XS3F-M421-402-L
			5 m	XS3F-M421-405-L
		L-shaped *3 *4 	2 m	XS3F-M422-402-L
			5 m	XS3F-M422-405-L

Note: When using Through-beam models, order one connector for the Receiver and one for the Emitter.

*1. Refer to *Introduction to Sensor I/O Connectors/Sensor Controllers* for details.

*2. The Sensor can be used in low-temperature environments (–25°C to –40°C). Do not use the Sensor in locations that are subject to oil.

*3. The connector will not rotate after connecting.

*4. The cable is fixed at an angle of 180° from the sensor emitter/receiver surface.