

Transparent Object Detection Sensor

E3S-R

- Ideal for transparent bottle sensing.
- Senses glass wafers and LCD glass circuit boards.
- With a stability indicator for the highly sensitive sensing of plastic bottles and other transparent bottles.



Ordering Information

Plastic-housing Compact Models

Connection	Appearance	Sensing method	Sensing distance	Light source color	Operating modes	Model		Recommended application (see note 1)	
						NPN	PNP	Flat object	Cylindrical object
								Sensing of glass wafers and LCD glass circuit boards	Sensing of plastic bottles and other transparent bottles
Pre-wired	Horizontal 	Retro-reflective	10 to 30 cm	Infrared	Light-ON Dark-ON (selectable)	E3S-R12	E3S-R32	Ideal	Ideal
			0.1 to 1 m	Red		E3S-R11	E3S-R31	Ideal	---
	Vertical 		10 to 30 cm	Infrared		E3S-R62	E3S-R82	Ideal	Ideal
			0.1 to 1 m	Red		E3S-R61	E3S-R81	Ideal	---
Plug-in connector (see note 2)	Horizontal 	Retro-reflective	10 to 30 cm	Infrared	Light-ON Dark-ON (selectable)	E3S-R17	E3S-R37	Ideal	Ideal
			0.1 to 1 m	Red		E3S-R16	E3S-R36	Ideal	---
	Vertical 		10 to 30 cm	Infrared		E3S-R67	E3S-R87	Ideal	Ideal
			0.1 to 1 m	Red		E3S-R66	E3S-R86	Ideal	---

- Note:**
1. The E3S-R may not easily sense some glass wafers due to their materials or plastic bottles due to their shapes. Before using the E3S-R for the sensing of glass wafers or plastic bottles, be sure to use test examples of the glass wafers or plastic bottles to check if the E3S-R senses the examples easily.
 2. Refer to page 2 for the connection plugs used for the plug-in connector-type models.
 3. Before using the product under conditions not described in the manual or applying the product to nuclear control systems, railroad systems, aviation systems, vehicles, combustion systems, medical equipment, amusement machines, safety equipment, and other systems, machines, and equipment that may have a serious influence on lives and property if used improperly, consult your OMRON representative. Make sure that the ratings and performance characteristics of the product are good enough for the systems, machines, and equipment, and be sure to provide the systems, machines, and equipment with double safety mechanisms.

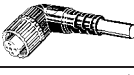
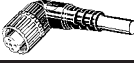
Metal-housing Models

Connection	Appearance	Sensing method	Sensing distance	Light source color	Operating modes	Model	Recommended application (see note 1)	
							Flat object	Cylindrical object
							Sensing of glass wafers and LCD glass circuit boards	Sensing of plastic bottles and other transparent bottles
Pre-wired	Horizontal	Retroreflec-tive	30 cm	Infrared	Light-ON Dark-ON (selectable by wiring)	E3S-RS30E4	---	Ideal
			1 m			E3S-R1E4 E3S-R1B4	---	Applicable
	Vertical		30 cm			E3S-RS30E42	---	Ideal
			1 m			E3S-R1E42 E3S-R1B42	---	Applicable

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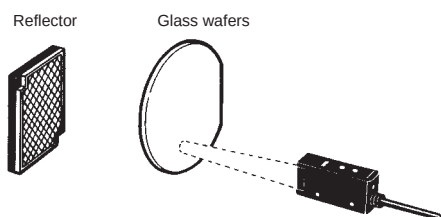
■ Accessories (Order Separately)

Plugs (for Sensors with Connector Terminals)

Cord	Appearance		Cord length	Model
Standard	Straight (3 conductor)		2 m	XS2F-D421-DC0-A
			5 m	XS2F-D421-GC0-A
	L-shape (3 conductor)		2 m	XS2F-D422-DC0-A
			5 m	XS2F-D422-GC0-A
Robot (vibration-proof)	Straight (4 conductor)		2 m	XS2F-D421-D80-R
			5 m	XS2F-D421-G80-R
	L-shape (4 conductor)		2 m	XS2F-D422-D80-R
			5 m	XS2F-D422-G80-R

Application Examples

Sensing of Glass Wafers and LCD Glass Circuit Bottles



Sensing of Plastic Bottles and Other Transparent Bottles

