

Ideal for Detecting Glass Wafers and Other Transparent Objects

- Detects glass wafers and LCD glass circuit boards.



Be sure to read *Safety Precautions* on page 7.

Ordering Information

Sensors

Compact Models with Plastic Housing (Refer to *Dimensions* on page 8.)

Red light Infrared light

Sensing method	Appearance	Connection method	Sensing distance	Model		Recommended application *2	
				NPN	PNP	Flat object	Cylindrical object
						Detecting glass wafers and LCD glass circuit boards	Detecting plastic bottles and other transparent containers
Retro-reflective	Horizontal	Pre-wired (2 m)	300 mm [100 mm] *1	E3S-R12 2M	---	Ideal	Ideal
			1 m [100 mm] *1	E3S-R11 2M	E3S-R31 2M	Ideal	—
		Standard M12 Connector	300 mm [100 mm] *1	E3S-R17	---	Ideal	Ideal
			1 m [100 mm] *1	E3S-R16	E3S-R36	Ideal	—
	Vertical	Pre-wired (2 m)	300 mm [100 mm] *1	E3S-R62 2M	---	Ideal	Ideal
			1 m [100 mm] *1	E3S-R61 2M	E3S-R81 2M	Ideal	—
		Standard M12 Connector	300 mm [100 mm] *1	E3S-R67	---	Ideal	Ideal
			1 m [100 mm] *1	E3S-R66	E3S-R86	Ideal	—

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

*2. The E3S-R may not detect some glass wafer materials or plastic bottle shapes. Before using the E3S-R, be sure to test it on samples to make sure it can detect the items reliably.