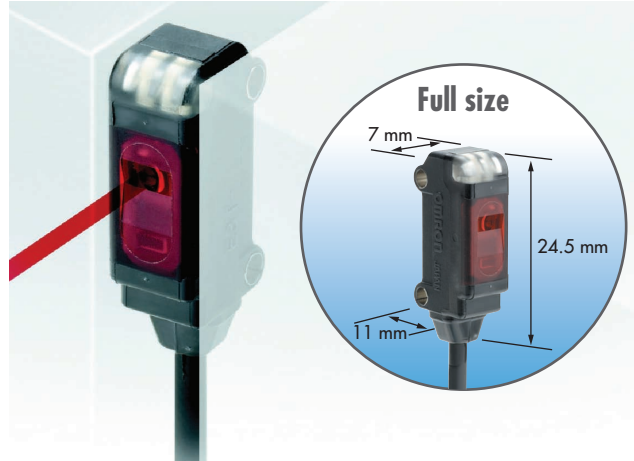
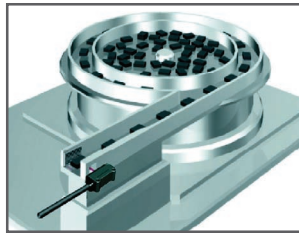


## Miniature Retro-reflective Photoelectric Sensors with Built-in Amplifier

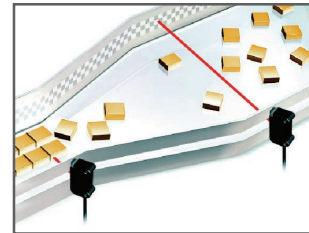
- Reliable detection in narrow lanes enables equipment downsizing of material handling equipment
- Detect through a small hole with 2 mm lens diameter
- Improved detection stability at short distance (10 to 100 mm) with tape reflectors
- Coaxial retro-reflective design delivers reliable positioning
- Compact size is ideal for limited space installations
- Proven design with easy-to-align visible red LED
- Standard reflector E39-R4 or short distance reflector E39-R37-CA provided



**Bowl Feeder**



**Condensing Conveyor**



## Ordering Information

### Sensors

Sensing method	Appearance	Connection method	Sensing distance	Operation mode	NPN output model	PNP output model
Retro-reflective	 Side view	Pre-wired, 2 m cable	30 to 200 mm with E39-R4 10 to 100 mm with E39-R37-CA and E39-RS_CA tape reflectors	Light-ON	<b>E3T-SR41 2M</b>	<b>E3T-SR43 2M</b>
				Dark-ON	<b>E3T-SR42 2M</b>	<b>E3T-SR44 2M</b>

### Reflectors

Description	Sensing distance	Model	Remarks
Corner cube reflector	30 to 200 mm	<b>E39-R4</b>	Provided with sensors ordered as E3T-SR4_
		<b>E39-R37-CA</b>	Provided with sensors ordered as E3T-SR4_ S
Tape reflector*	10 to 100 mm	<b>E39-RS1-CA</b>	10 x 35 mm, adhesive backed
		<b>E39-RS2-CA</b>	35 x 40 mm, adhesive backed
		<b>E39-RS3-CA</b>	70 x 80 mm, adhesive backed

\* Tape reflector models without "CA" suffix cannot be used with the E3T-SR4\_ series sensors.

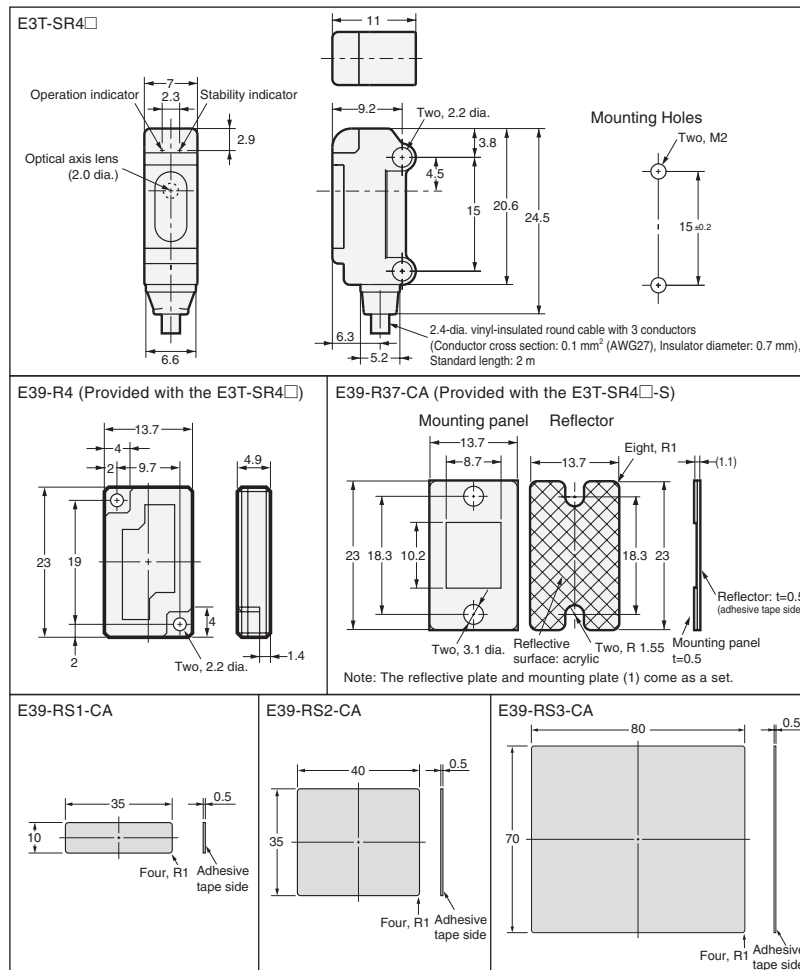
## Ratings and Specifications

Output model	NPN	PNP
	E3T-SR41/E3T-SR42	E3T-SR43/E3T-SR44
Sensing distance	200 mm (30 mm) with the E39-R4, 100 mm (10 mm) with the E39-R37-CA*	
Light source (wavelength)	Red LED (650 nm)	
Power supply voltage	12 to 24 VDC $\pm$ 10%, ripple (p-p) 10% max.	
Current consumption	20 mA max.	
Control output	Load power supply voltage: 26.4 VDC max., Load current: 50 mA max. (Residual voltage: 2 V max. for load current of 10 to 50 mA, 1 V max. for load current of less than 10 mA.) Open collector output Operation mode: Light-ON: E3T-SR41 or E3T-SR43, Dark-ON: E3T-SR42 or E3T-SR44	
Response time	Operate or reset: 1 ms max.	
Degree of protection	IEC IP67	
Material	Case: Polybutylene terephthalate (PBT), display: Modified polyarylate resin, Lens: Methacrylic resin	

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

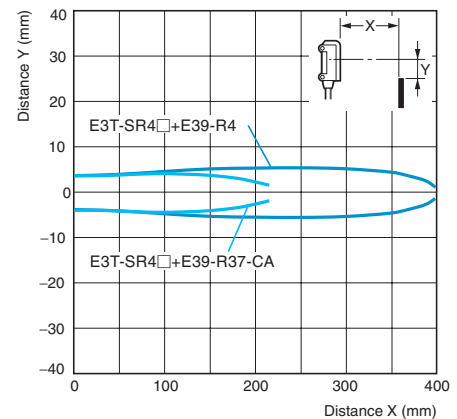
\* The E39-RS1/2/3 Tape Reflectors (i.e., model numbers without a CA suffix) cannot be used with the E3T-SR4□.

## Dimensions (Unit: mm)

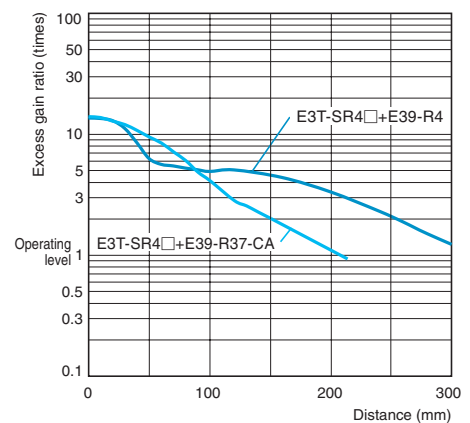


## Engineering Data (Typical)

### Parallel Operating Range



### Excess Gain vs. Set Distance



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