

NEW

OMRON

# Miniature Photoelectric Sensor with Built-in Amplifier

## E3T-SR4 Series

Additions to Series

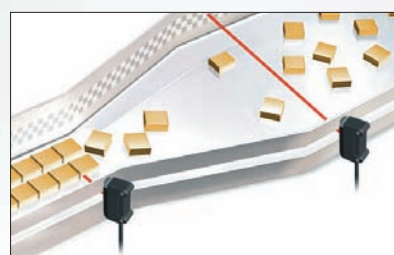
## Reliable Detection in Narrow Lanes Enables Equipment Downsizing and Easy Design

Compact size is ideal for installation where space is limited.

Lens diameter of 2 mm enables detection through a small hole.

Improved detection reliability for use at short distances with tape reflector.

Reliable positioning in applications with Coaxial Retro-reflective Models.



The distance for short-distance detection when a tape reflector is used is 10 mm. Detection is stable through a hole whether the distance is 10 mm or 100 mm (except for use in combination with the E39-R4).



## Ordering Information

### Sensors

Red light

Sensing method	Appearance		Connection method	Sensing distance	Operation mode	Model	
						NPN output	PNP output
Retro-reflective		Side-view	Pre-wired (2 m)	Provided E39-R4 Reflector: 200 mm (30 mm) *1	Light-ON	E3T-SR41 2M *2	E3T-SR43 2M *2
				E39-R37-CA: 100 mm (10 mm) *1	Dark-ON	E3T-SR42 2M *2	E3T-SR44 2M *2

### Accessories

Name	Sensing distance	Model	Remarks
Small Reflectors	200mm [30mm] *1	E39-R4	Provided with the E3T-SR4□.
	100mm [10mm] *1	E39-R37-CA *3	Provided with the E3T-SR4□-S.
Tape reflector	100mm [10mm] *1	E39-RS1-CA *3	---
	100mm [10mm] *1	E39-RS2-CA *3	---
	100mm [10mm] *1	E39-RS3-CA *3	---

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

\*2 Model with the E39-R37-CA Reflector are also available.

These models have the -S suffix. (Example: E3T-SR4□-S)

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

The E39-□-CA Reflector is for use with the E3T-SR4□ only. It cannot be used with other Sensors.

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## Ratings and Specifications

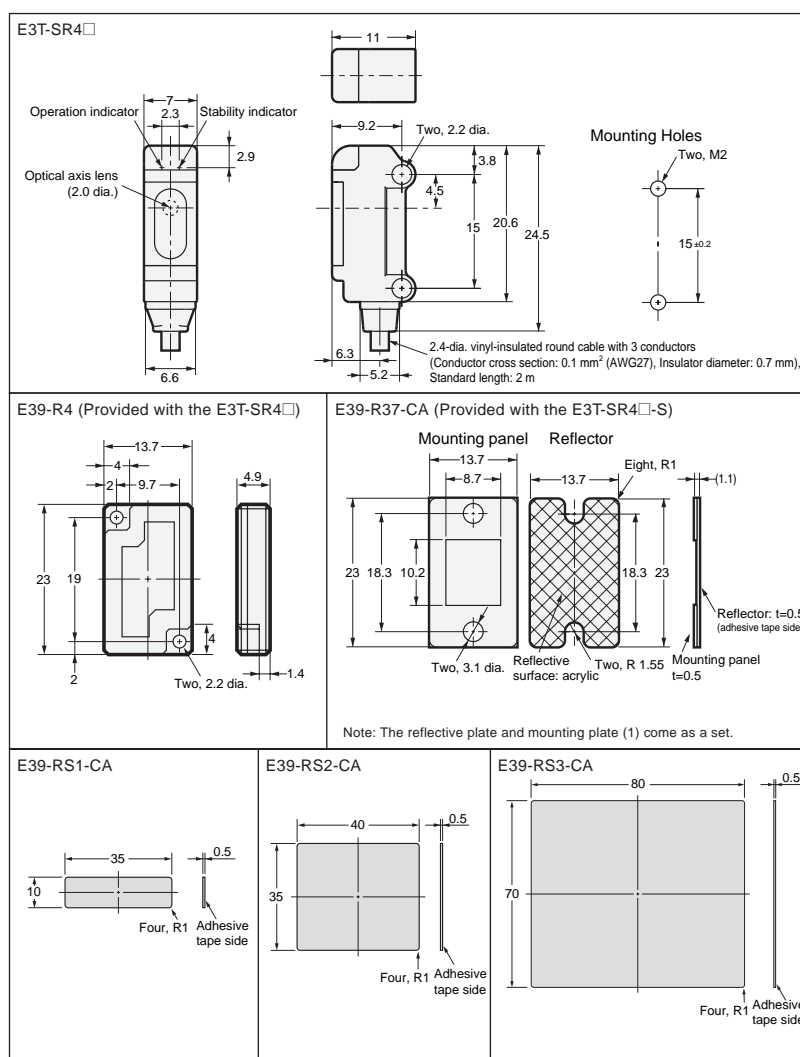
Output Model	NPN	PNP
	E3T-SR41/E3T-SR42	E3T-SR43/E3T-SR44
Sensing distance	200 mm (30 mm) (with the E39-R4), 100 mm (10 mm) (with the E39-R37-CA) *	
Light source (wavelength)	Red LED (650 nm)	
Power supply voltage	12 to 24 VDC $\pm 10\%$ , ripple (p-p) 10% max.	
Current consumption	20 mA max.	
Control 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□.

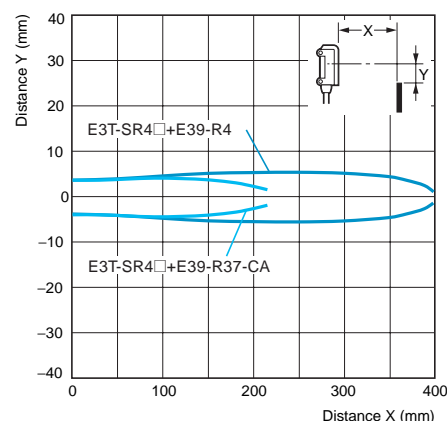
## Dimensions

(Unit: mm)

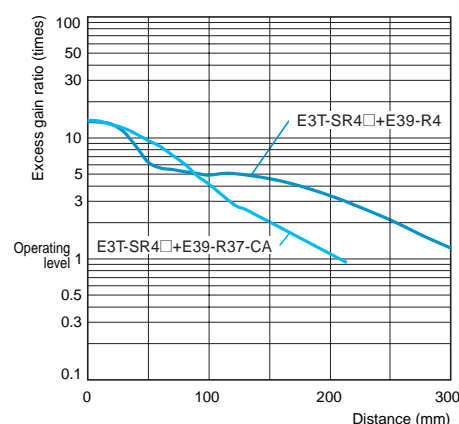


## Engineering Data (Typical)

### Parallel Operating Range



### Excess Gain vs. Set Distance



This document provides information mainly for selecting suitable models. Please read Instruction Sheet carefully for information that the user must understand and accept before purchase, including information on warranty, limitations of liability, and precautions.

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