

Photoelectric Sensor

E3S-R

High Performance, Retroreflective Photoelectric Sensor Incorporates Polarised Lenses to give Reliable Detection of Transparent or Shiny Objects

Both NPN and PNP outputs are wire configurable for Light-ON or Dark-ON operation.

Small die-cast metal housing (IP67) offers reliable performance in aggressive environments.

Mutual interference protection is provided to guarantee stable operation.

Ordering Information

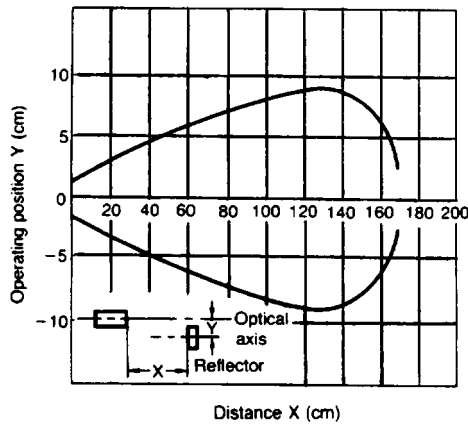
Sensing Distance	Mounting style	Output	Order Number
300 mm	Horizontal	NPN	E3S-RS30E430
		PNP	E3S-RS30B430
	Vertical	NPN	E3S-RS30E4230
		PNP	E3S-RS30B4230
1 m	Horizontal	NPN	E3S-R1E4
		PNP	E3S-R1B4
	Vertical	NPN	E3S-R1E42
		PNP	E3S-R1B42

Specifications

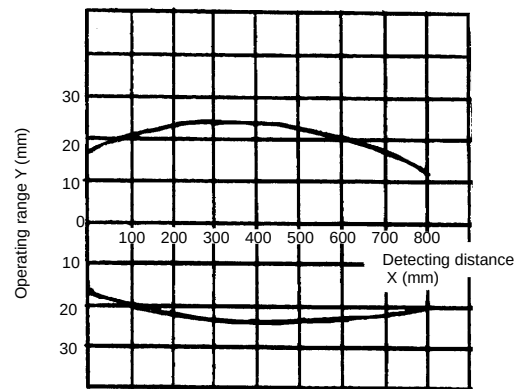
Model			E3S-RS30□4-30 E3S-RS30□42-30	E3S-R1□4 E3S-R1□42
Operating voltage			12 VDC-10% to 24 VDC+10%, ripple (p-p): 10% max.	
Current consumption			25 mA max.	
Sensing distance			300 mm	1 m
Standard objects			Glass tube with 10 dia. min. (t = 1.0 mm, ℓ = 30 mm)	
Control output	DC solid-state	Load	NPN output (with suffix-E: 80 mA, PNP output (with suffix-B): 100 mA	
		Voltage drop	2 V max.	
Response time (ON, OFF)			1 ms max.	
Sensitivity			Adjustable	
Operation mode			Wire-selectable (refer to 'Output Stage Circuit Diagram')	
Indicators			LIGHT indicator (red), STABILITY indicator (green)	
Mutual interference protection			Provided	
Degree of protection		IEC 144	IP67	
		NEMA	1, 3, 4X, 6, 12	
Housing material			Housing: zinc die-cast Lens: Polycarbonate resin	
Light source			Infrared LED	
Ambient temperature			Operating: -25° to 55°C	

Engineering Data

E3S-R1□□



E3S-RS30 ☐ ☐ ☐ ☐

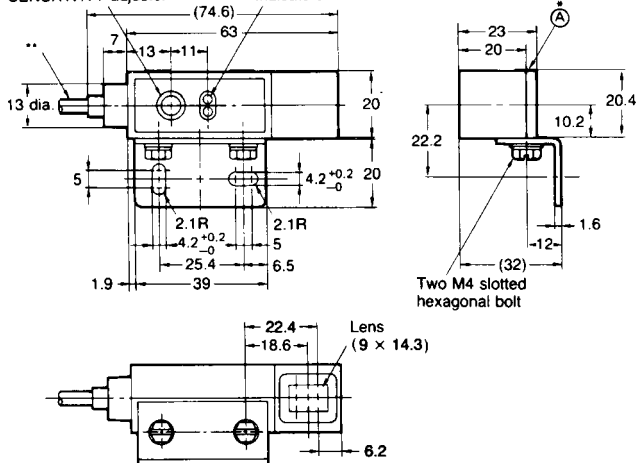


Dimensions

Vertical

Weight: approx. 165 g

SENSITIVITY adjustor Indicators



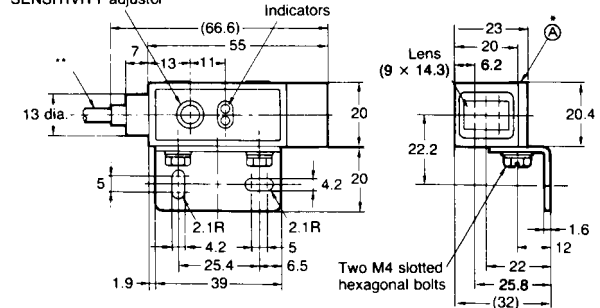
*The L-shaped mounting bracket may also be attached to surface (A).

** Standard cable length (with core dia. of 4, 18/0.12, 3): 2m

Horizontal

Weight: approx. 165 g

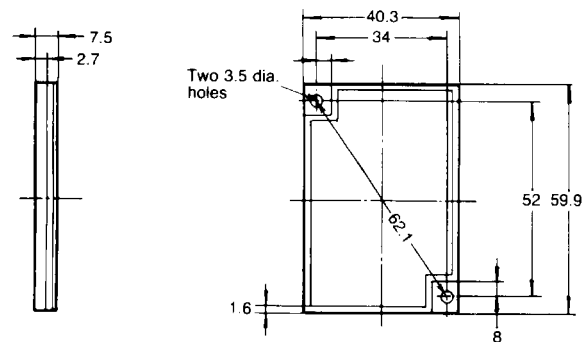
SENSITIVITY adjustor



* The L-shaped mounting bracket may also be attached to surface (A).

** Standard cable length (with core dia. of 4, 18/0.12, 3): 2m

Reflector E39-R1 (included)



Connections

**Output stage circuit diagram
E3S-R□E4 (NPN output)**

