



Built-in Amplifier Photoelectric Sensor (Medium Size)

E3S-AR81 2M

No Image Available

Retro-reflective with M.S.R. function, Sensing distance When using the I R1: 0.1 to 2 m, Light-ON/Dark-ON selectable, PNP, Pre-wired models (2 n LED (700 nm)

Sensing method	Retro-reflective with M.S.R. function
Sensing distance	When using the E39-R1: 0.1 to 2 m
Light source	Red LED (700 nm)
Connection method	Pre-wired models

Image

Ratings/Performance

As of August :

Shape	Square type
Sensing method	Retro-reflective with M.S.R. function
Sensing distance	When using the E39-R1: 0.1 to 2 m
Standard sensing object	Opaque: 75 mm dia. min.
Directional angle	3 to 10°
Light source	Red LED (700 nm)
Power supply voltage	10 to 30 VDC ripple (p-p) 10% included
Current consumption	30 mA max.
Control output	PNP open collector 30 VDC max. 100 mA max. Residual voltage: 1 V max.
Operation mode	Light-ON/Dark-ON selectable
Protective circuit	Output short-circuit protection, Power supply reverse polarity protection, Mutuinterference prevention
Response time	Operate or reset: 0.5 ms max.
Sensitivity setting	2-turn endless adjustment (with indicator)
Ambient illuminance	Incandescent lamp: 5,000 lx max. Sunlight: 10,000 lx max.
Ambient temperature range (Operating)	-25 to 55 °C (with no freezing or condensation)

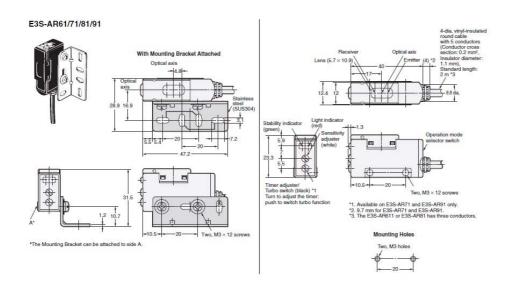
1 of 4 24/09/2021, 5:05 pm

Ambient humidity range (Operating)	35 to 85% (with no condensation)
Ambient humidity range (Strage)	35 to 95% (with no condensation)
Insulation resistance	20 MΩ min. (500 VDC megger)
Dielectric strength	1000 VAC 50/60 Hz 1 min
Vibration resistance	Destruction: 10 to 55 Hz, 1.5 mm double amplitude each in X, Y, and Z directi 2 h
Shock resistance	Destruction: 500 m/s ² 3 times each in X, Y and Z directions
Degree of protection	IEC: IP67 NEMA 4X (indoors only)
Connection method	Pre-wired models (Cable length 2 m)
Indicator	Light indicator (red), Stability indicator (green)
Weight	Package: Approx. 110 g
Accessories	Instruction manual, Mounting bracket, Sensitivity adjustment driver, Sensitivity adjusting knob, Reflector
Material	Case: Polybutylene terephthalate (PBT) Lens: Denatured Polyarylate Mounting Bracket: Stainless steel (SUS304)

As of August:

Dimensions

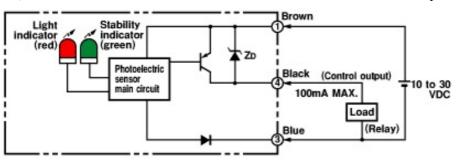
As of August :



As of August :

Output circuit diagram

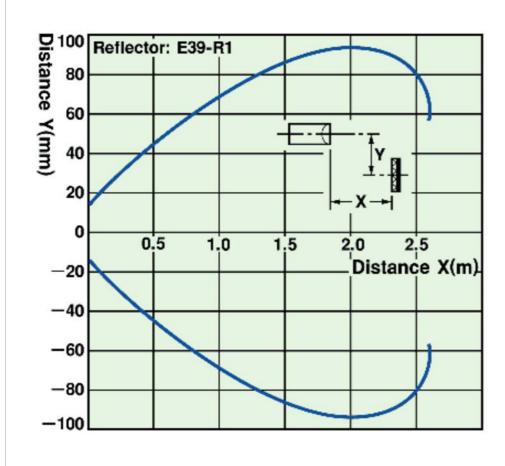
2 of 4 24/09/2021, 5:05 pm



As of August :

Parallel operating range

As of August :



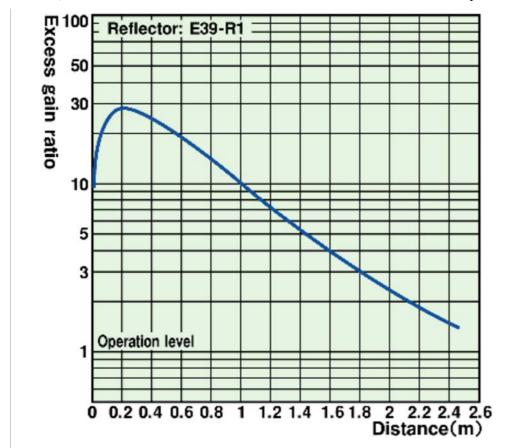
As of August :

Setting distance

As of August:

Excess gain ratio vs. setting distance

3 of 4 24/09/2021, 5:05 pm



As of August :

4 of 4 24/09/2021, 5:05 pm