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Long-distance Photoelectric Sensor with Built-in Amplifier

## E3G-R17

about this Product Family

Inquiry of this Product

Retroreflective Type , Connector Type , Sensing Distance 10 m , NPN/PNP selector



CG Image [3D-CAD]

Ratings / Performance

Dimensions

Output circuit diagram

Timing chart

Parallel operating range

Setting distance

As of August 22, 2014

Sensing method	Retro-reflective with M.S.R. function
Sensing distance	0.5 m to 10 m (When using the E39-R2)
Standard sensing object	Opaque 80 mm dia. Min.
Directional angle	Sensor:1 to 5 DEG Reflector:40 DEG Min.
Light source	Red LED (Emission wave length: 700nm)
Power supply voltage	10 to 30 VDC (ripple(p-p) 10% included)
Current consumption	50mA DC Max.
Control output (Output type)	NPN/PNP open collector output
Control output (Load current)	0 to 100 mA
Control output (Residual voltage)	(DC) 1.2 V Max. (NPN output, Load current 100mA Max.) (DC) 2 V Max. (PNP output, Load current 100mA Max.)
Operation mode	Light-ON/Dark-ON selectable
Load power supply voltage	30 VDC Max.
Protective circuit	Surge suppressor Output short-cut protection Power supply reverse polarity protection Mutual interference prevention
Response time	1ms Max.
Sensitivity setting	Single-turn adjustment
Ambient illuminance	Incandescent lamp:3000 lux Max., Sunlight:10000 lux Max.
Ambient temperature	Operating: -25 to 55 °C Storage: -30 to 70 °C (with no icing or condensation)
Ambient humidity	Operating: 35 to 85%RH Storage: 35 to 95%RH (with no condensation)
Insulation resistance	20 M OHM Min. at 500 VDC between charged parts and the case
Dielectric strength	1000 VAC at 50/60 Hz for 1 minute between charged parts and the case
Vibration resistance	10 to 55 Hz, 1.5-mm double amplitude for 2 hours each in X, Y, and Z directions
Shock resistance	500m/s <sup>2</sup> for 3 times each in X, Y, and Z directions

<b>Degree of protection</b>	IEC60529: IP67
<b>Applicable standard (EC Directive (Low Voltage Directive))</b>	EN60947-5-2
<b>Applicable standard (EC Directive (EMC))</b>	EMI: EN60947-5-2 Emission Enclosure: EN55011 Group 1 class A EMS: EN60947-5-2 Immunity ESD: IEC61000-4-2 Immunity RF-interference: IEC61000-4-3 Immunity Burst: IEC61000-4-4
<b>Conformed standard (EC Directive (CE marking) )</b>	Equipped
<b>Connection method</b>	M12 connector models
<b>Indicator</b>	Operation indicator(orange), Stability indicator(green)
<b>Weight (packed state)</b>	Approx. 50 g
<b>Tightening torque</b>	1.2 N.mMax. (with M4 screw)
<b>Material (case)</b>	PBT
<b>Material (lens)</b>	Methacrylate resin
<b>Material (cover)</b>	Polyethyl sulfon
<b>Accessories</b>	Instruction manual, Adjustment driver, Reflector

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