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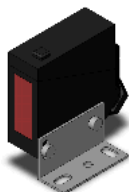
Built–in Power Supply Photoelectric Sensor

E3JM-DS70M4

Image

Diffuse-reflective, Sensing distance 700mm, Light-ON/Dark-ON selectable, Relay output, Terminal block models

Sensing method	Diffuse-reflective
Sensing distance	0mm to 700mm (White paper 200 x 200 mm)
Light source	Infrared LED
Control output (Output type)	Relay output
Connection method	Terminal block models

Ratings/Performance

As of November 11, 2015

Sensing method	Diffuse-reflective
Sensing distance	0mm to 700mm (White paper 200 x 200 mm)
Differential distance	20% Max. of sensing distance
Light source	Infrared LED
Power supply voltage	12 to 240 VDC -10% to 10% (ripple (p-p) 10% Max.) 24 to 240 VAC -10% to 10%
Power consumption	(DC) 2 W Max. (AC) 2W Max.
Control output (Output type)	Relay output
Control output (Load current)	0 to 3 A
Life expectancy (relay output)	Electrical: 100 thousand times or more (switching frequency 1800 times/hour) Mechanical: 50 million times or more (switching frequency 18000 times/hour)
Operation mode	Light-ON/Dark-ON selectable
Load power supply voltage	5 VDC Min. 250 VAC
Response time	30 ms Max.
Sensitivity setting	Single-turn adjustment
Ambient illuminance	Incandescent lamp: 3000 lux Max.
Ambient temperature	Operating: -25 to 55℃ Storage: -30 to 70℃ (with no icing or condensation)
Ambient humidity	Operating: 45 to 85% Storage: 35 to 95% (with no icing or condensation)
Insulation resistance	20 MOhm Min. at 500 VDC between charged parts and the case
Dielectric strength	2000 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	500 m/s**2 for 3 times each in X, Y, and Z directions

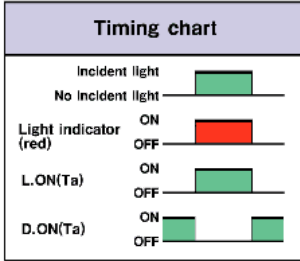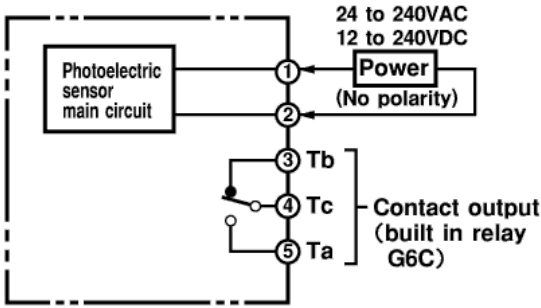| Degree of protection	IEC60529: IP66
Connection method	Terminal block models
Indicator	Light indicator (red)
Tightening torque	2 N · m Max. (with M4 screw)
Material (case)	ABS
Material (lens)	Methacrylate resin
Material (cover)	Polycarbonate
Material (mounting bracket)	Iron
Accessories	Instruction manual, Mounting bracket, Nut, Terminal protection cover, One set of cable connection nuts

As of November 11, 2015

Dimensions

As of November 11, 2015

Mounting holes
2-M6
42

2-M4×30
JIS B 0202 PF1/2
Hexagon nut (width across flats:22)
Applicable cord : 6-dia. to 8-dia.

*1.The mounting bracket can be attached to side A.
*2.Light indicator(without timer)
   Operation indicator(with timer)
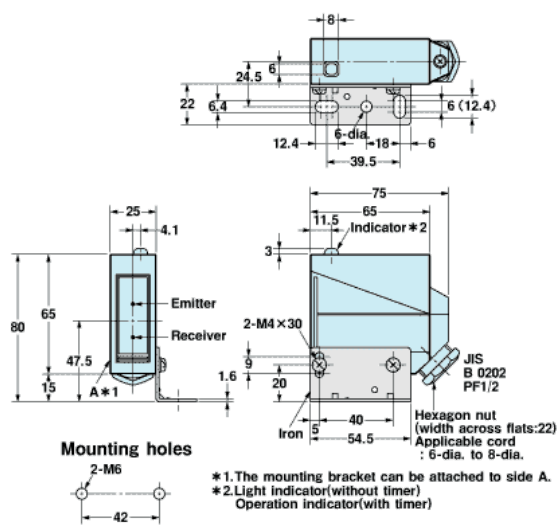
As of November 11, 2015

Output circuit

As of November 11, 2015

Timing chart
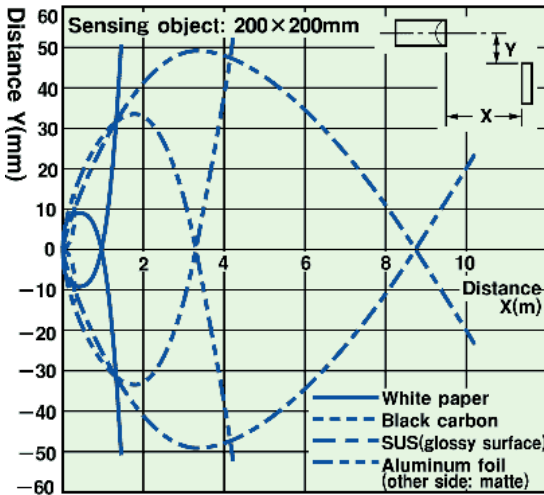

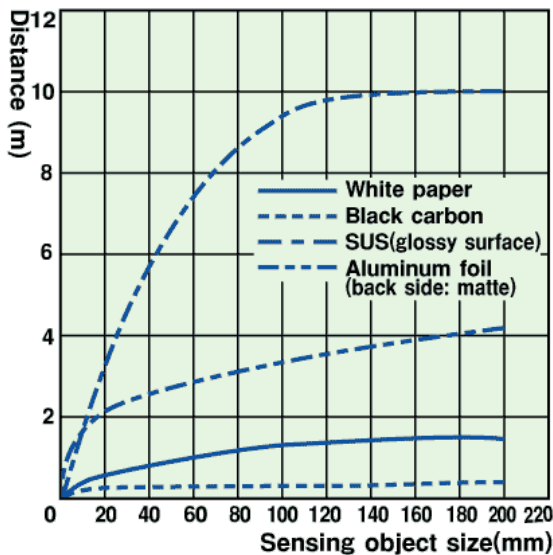As of November 11, 2015

Operating range

As of November 11, 2015

As of November 11, 2015

Setting distance

As of November 11, 2015

As of November 11, 2015