



## EX-Z11A | Ultra-minute Photoelectric Sensor EX-Z



※Photo may vary from actual product.

RoHS compliant

Product Number	EX-Z11A
Part Number	EX-Z11A
Product	Ultra-minute Photoelectric Sensor
Details	Thru-beam [Side sensing]
Product name	Ultra-minute Photoelectric Sensor EX-Z
Features	The World's No.1 in Compactness * Among photoelectric sensors with built-in amplifier, as of June 2015 (survey by our company)

### Spec Detail

As of November 01, 2017

Specifications and design of the products are subject to change without notice for the product improvement.

Item	Specifications
Product Number	EX-Z11A
Part Number	EX-Z11A
Output operation	Light-ON
Sensing range	50 mm 1.969 in
Min. sensing object	ø0.3 mm ø0.012 in opaque object (Completely beam interrupted object) (Setting distance between emitter and receiver: 50 mm 1.969 in)
Repeatability(perpendicular to sensing axis)	0.02 mm 0.001 in or less
Supply voltage	12 to 24 V DC ±10 % Ripple P-P 10 % or less
Current consumption	Emitter: 10 mA or less Receiver: 10 mA or less
Output	NPN open-collector transistor - Maximum sink current: 20 mA - Applied voltage: 30 V DC or less (between output and 0 V) - Residual voltage: 1.5 V or less (at 20 mA sink current)
Output:Short-circuit protection	Incorporated
Response time	0.5 ms or less
Operation indicator	Orange LED (Lights up when the sensing output is ON)
Stability indicator	Green LED (Lights up under the stable light received condition or the stable dark condition)
Protection	IP67 (IEC)
Ambient temperature	-10 to +55 °C 14 to +131 °F (No dew condensation or icing allowed), Storage: -30 to +70 °C -22 to +158 °F
Ambient humidity	35 to 85 % RH, Storage: 35 to 85 % RH
Ambient illuminance	Incandescent light: 5,000 lx at the light-receiving face
Voltage withstandability	1,000 V AC for one min. between all supply terminals connected together and enclosure

Insulation resistance	20 MΩ or more, with 250 V DC megger between all supply terminals connected together and enclosure
Vibration resistance	10 to 500 Hz frequency, 3 mm 0.118 in amplitude in X, Y and Z directions for two hours each
Shock resistance	500 m/s <sup>2</sup> acceleration (50 G approx.) in X, Y and Z directions for three times each
Emitting element	Red LED (Peak emission wavelength: 650 nm 0.026 mil, modulated)
Grounding	Floating
Material	Enclosure: PBT Lens: Polycarbonate Metallic part: Stainless steel (SUS304)(SUS301 for rear side of front sensing type)
Cable	0.1 mm <sup>2</sup> 3-core (emitter: 2-core) cabtyre cable, 2 m 6.562 ft long
Cable extension	Extension up to total 50 m 164 ft is possible with 0.3 mm <sup>2</sup> , or more, cable (both emitter and receiver) .
Weight	Net weight (each emitter and receiver) : 15 g approx. Gross weight: 35 g approx.
Accessory	M2 mounting screws: 1 set (front sensing type: 6 mm 0.236 in in length; side sensing type: 10 mm 0.394 in in length)
Remark	Where measurement conditions have not been specified precisely, the conditions used were an ambient temperature of +23 °C 73 °F .

### Accessories



Product Number	<b>MS-EXZ-1</b>
Part Number	<b>MS-EXZ-1</b>
Product name	<b>Mounting bracket</b>



Product Number	<b>MS-EXZ-3</b>
Part Number	<b>MS-EXZ-3</b>
Product name	<b>Mounting bracket</b>

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