



EX-13EA-PN | Ultra-slim Photoelectric Sensor EX-10



※Photo may vary from actual product.

Product Number	EX-13EA-PN
Part Number	EX-13EA-PN
Product	Ultra-slim Photoelectric Sensor
Details	Thru-beam [Side sensing]
Product name	Ultra-slim Photoelectric Sensor EX-10

Spec Detail

As of May 27, 2021

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

Item	Specifications
Product Number	EX-13EA-PN
Part Number	EX-13EA-PN
CE marking directive compliance	EMC Directive, RoHS Directive
Sensing range	500 mm 19.685 in
Min. sensing object	ø2 mm ø0.079 in opaque object (Completely beam interrupted object) (Setting distance between emitter and receiver: 500 mm 19.685 in)
Hysteresis	-
Repeatability(perpendicular to sensing axis)	0.05 mm 0.002 in or less
Supply voltage	12 to 24 V DC plus or minus 10 % Ripple P-P 10 % or less
Current consumption	Emitter: 10 mA or less Receiver: 10 mA or less
Output	PNP open-collector transistor - Maximum source current: 50 mA - Applied voltage: 30 V DC or less (between output and +V) - Residual voltage: 2 V or less (at 50 mA source current), 1 V or less (at 16 mA source current)
Output:Utilization category	DC-12 or DC-13
Output:Short-circuit protection	Incorporated
Response time	0.5 ms or less
Operation indicator	Orange LED (lights up when the output is ON)
Incident beam indicator	-
Stability indicator	Green LED (lights up under stable light received condition or stable dark condition)
Pollution degree	3 (Industrial environment)
Protection	IP67 (IEC)
Ambient temperature	-25 to +55 °C -13 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: 3,000 lx or less 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 MOhm , 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 double amplitude (20 G max.) in X, Y and Z directions for two hours each
Shock resistance	500 m/s ² acceleration (50 G approx.) in X, Y and Z directions three times each
Emitting element	Red LED (Peak emission wavelength: 680 nm 0.027 mil, modulated)
Material	Enclosure: Polyethylene terephthalate Lens: Polyallylate
Cable	0.1 mm ² 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 ² , or more, cable (emitter and receiver).
Weight	Net weight (each emitter and receiver): 20 g approx Gross weight: 50 g approx
Accessory	Mounting screws: 1 set

Accessories



Product Number **CHX-SC2**

Part Number **CHX-SC2**

Product **Sensor Checker**

Product name **Sensor Checker CHX-SC2**



Product Number **MS-EX10-12**

Part Number **MS-EX10-12**

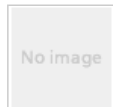
Product name **Mounting bracket**



Product Number **MS-EX10-13**

Part Number **MS-EX10-13**

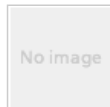
Product name **Mounting bracket**



Product Number **MS-EX10-2**

Part Number **MS-EX10-2**

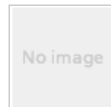
Product name **Mounting bracket**



Product Number **MS-EX10-3**

Part Number **MS-EX10-3**

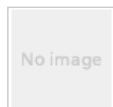
Product name **Mounting bracket**



Product Number **MS-M2**

Part Number **MS-M2**

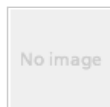
Product name **Mounting screw**



Product Number **OS-EX10-12**

Part Number **OS-EX10-12**

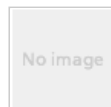
Product name **Slit mask**



Product Number **OS-EX10-15**

Part Number **OS-EX10-15**

Product name **Slit mask**



Product Number **OS-EX10E-12**

Part Number **OS-EX10E-12**

Product name **Slit mask**

