



## EX-23-PN | Ultra-compact Photoelectric Sensor EX-20 Ver.2



※Photo may vary from actual product.



Product Number	EX-23-PN
Part Number	EX-23-PN
Product	Ultra-compact Photoelectric Sensor
Details	Thru-beam[Side sensing]
Product name	Ultra-compact Photoelectric Sensor EX-20 Ver.2

### Spec Detail

As of April 06, 2023

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

Item	Specifications
Product Number	EX-23-PN
Part Number	EX-23-PN
Regulatory compliance	EMC Directive, RoHS Directive
Sensing range	2 m 6.562 ft
Sensing object	Min. dia. 3 mm dia. 0.118 in opaque object (Setting distance between emitter and receiver: 2 m 6.562 ft)
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) (located on the receiver)
Stability indicator	Green LED (lights up under stable light received condition or stable dark condition), located on the receiver
Sensitivity adjuster	Continuously variable adjuster, located on the emitter
Operation mode switch	Located on the receiver
Protection	IP67 (IEC)
Ambient temperature	-25 to +55 degrees -13 to +131 degrees Fahrenheit (No dew condensation or icing allowed), Storage: -30 to +70 degrees -22 to +158 degrees Fahrenheit
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 <sup>2</sup> acceleration (50 G approx.) in X, Y and Z directions three times each
Emitting element	Red LED (modulated)
Emitting element:Peak emission wavelength	650 nm 0.026 mil
Material	Enclosure: Polyethylene terephthalate Lens: Polyallylate
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 164.042 ft is possible with 0.3 mm <sup>2</sup> , or more, cable (both emitter and receiver).
Weight	Net weight (each emitter and receiver): 20 g approx Gross weight: 60 g approx
Accessory	Adjusting screwdriver: 1 pc

### Accessories



Product Number **CHX-SC2**

Part Number **CHX-SC2**

Product **Sensor Checker**

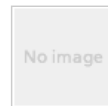
Product name **Sensor Checker CHX-SC2**



Product Number **MS-EX20-2**

Part Number **MS-EX20-2**

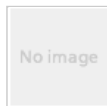
Product name **Mounting bracket**



Product Number **MS-EX20-4**

Part Number **MS-EX20-4**

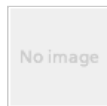
Product name **Mounting bracket**



Product Number **MS-EX20-5**

Part Number **MS-EX20-5**

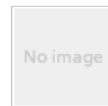
Product name **Universal sensor mounting bracket**



Product Number **MS-EXL2-4**

Part Number **MS-EXL2-4**

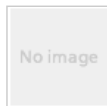
Product name **Universal sensor mounting bracket**



Product Number **OS-EX20E-05**

Part Number **OS-EX20E-05**

Product name **Slit mask**



Product Number **OS-EX20E-05x3**

Part Number **OS-EX20E-05x3**

Product name **Slit mask**