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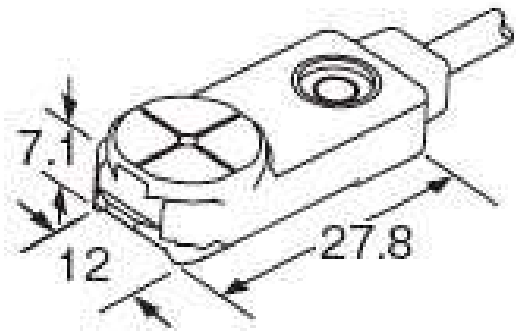
GX-F12B-P | Rectangular-shaped Inductive Proximity Sensor GX-F/H

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*Photo may vary from actual product.



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Other inquiry

Product Number

Number

Product

Details

Product Name

GX-F12B-P

GX-F12B-P

Rectangular-shaped Inductive Proximity Sensor

PNP output

[Rectangular-shaped Inductive Proximity Sensor GX-F12B-P](#)

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As of April 26, 2025 (JST)
*Specifications and design of the products are subject to change without notice for the product improvement.

Spec Detail

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

Item	Specifications
Product Number	GX-F12B-P
Part Number	GX-F12B-P
Products Name	Rectangular-shaped Inductive Proximity Sensor
Product details	PNP output
The price of the product	Please contact our office



Item	Specifications
Max. operation distance	4.0 mm 0.158 in plus or minus 8 % (Note) The maximum operation distance stands for the maximum distance for which the sensor can detect the standard sensing object.
Stable sensing range	0 to 3.3 mm 0 to 0.130 in (Note) The stable sensing range stands for the sensing range for which the sensor can stably detect the standard sensing object even if there is an ambient temperature drift and/or supply voltage fluctuation.
Standard sensing object	Iron sheet 20 × 20 × t 1 mm 0.787 × 0.787 × t 0.039 in
Applicable regulations and certifications	CE Marking (EMC Directive, RoHS Directive), UKCA Marking (EMC Regulations, RoHS Regulations)
Hysteresis	20 % or less of operation distance(with standard sensing object)



Item	Specifications
Repeatability	Along sensing axis, perpendicular to sensing axis: 0.04 mm 0.002 in or less
Supply voltage	12 to 24 V DC +10/-15 % Ripple P-P 10 % or less
Current consumption	15 mA or less
Output	PNP open-collector transistor - Maximum source current: 100 mA - Applied voltage: 30 V DC or less(between output and +V) - Residual voltage: 2 V or less (at 100 mA source current)
Output:Output operation	Normally closed
Output:Utilization category	DC-12 or DC-13
Max. response frequency	500 Hz
Operation indicator	Orange LED(lights up when the output is ON)
Protection	IP68 (IEC), IP68g (JEM) (Note) Panasonic Electric Works SUNX's IP68 test method 1. Immerse at 0 m below 0 °C +32 °F water surface and leave for 30 min. Then, immerse at 0 m below +70 °C +158 °F water



Item	Specifications
	surface and leave for 30 min. 2. Regard the heat shock test in 1 as one cycle and perform 20 cycles. 3. Leave in water at a depth of 1 m 3.281 ft in water for 500 hours. 4. After tests 1 to 3, insulation resistance, voltage withstandability, current consumption, and sensing ranges must meet the standard values. (Note) If using the sensor in an environment where cutting oil droplets splatter, the sensor may be deteriorated due to added substances in the oil.
Ambient temperature	-25 to +70 °C -13 to +158 °F , Storage: -40 to +85 °C - 40 to +185 ※
Ambient humidity	45 to 85 % RH, Storage: 35 to 95 % RH
Voltage withstandability	1,000 V AC for one min. between all supply terminals connected together and enclosure



Item	Specifications
Insulation resistance	50 MΩ , or more, with 500 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 (Max. 20 G) in X, Y and Z directions for two hours each
Shock resistance	10,000 m/s ² acceleration (1,000 G approx.) in X, Y and Z directions three times each
Sensing range variation:Temperature characteristics	Over ambient temperature range -25 to +70 °C -13 to +158degrees Fahrenheit: Within plus or minus 8 % of sensing range at +23 °C +73 °F
Sensing range variation:Voltage characteristics	Within plus or minus 2 % for +10/-15 % fluctuation of the supply voltage
Material	Enclosure: PBT Indicator part: Polycarbonate / Polyester
Cable	0.15 mm ² 3-core oil, heat and c resistant cabty



Item	Specifications
	cable, 1 m 3.281 ft long
Cable extension	Extension up to total 100 m 328.084 ft is possible with 0.3 mm ² , or more, cable.
Net weight	20 g approx.

Recently checked products

Recently checked product numbers

- GX-F12B | Rectangular-shaped Inductive Proximity Sensor GX-F/H >
- GX-F12A-P | Rectangular-shaped Inductive Proximity Sensor GX-F/H >
- GX-F12A | Rectangular-shaped Inductive Proximity Sensor GX-F/H >
- DP-102A-E-P | Dual Display Digital Pressure Sensor [For Gas] DP-100 >
- DP-102A | Dual Display Digital Pressure Sensor [For Gas] DP-100 >

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Requests to customers (Dedicated to industrial motors)

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Switches	Micro Photoelectric Sensors	Programmable Controllers / Motion Controller	Machine Vision System	
Encoders / Potentiometers	Light Curtains / Safety Components	Human Machine Interface	Energy Management Solutions	
Transparent Conductive Film	Area Sensors	Pressure Sensors / Flow Sensors		
Cooling Fan	Inductive Proximity Sensors	Measurement Sensors		

<https://industry.panasonic.com/ap/en/products/fasys/sensor/proximity/number/gx-f12b-p>

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Sensors

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