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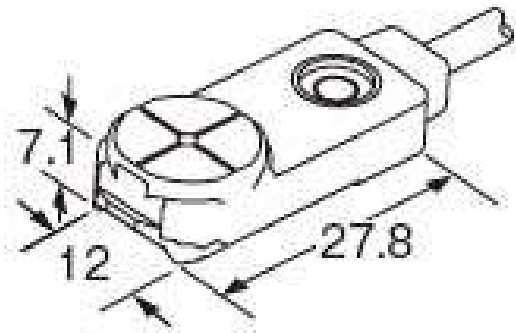
GX-F12A | Rectangular-shaped Inductive Proximity Sensor GX-F/H

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Catalog/
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*Photo may vary from actual product.



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Technical inquiry

Business inquiry

Other inquiry

Product Number	GX-F12A
Part Number	GX-F12A
Product Name	Rectangular-shaped Inductive Proximity Sensor
Product details	NPN output
Product Name	Rectangular-shaped Inductive Proximity Sensor GX-F12A

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Technical inquiry

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Other inquiry

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-F12A
Part Number	GX-F12A
Products Name	Rectangular-shaped Inductive Proximity Sensor
Product details	NPN 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	NPN open-collector transistor - Maximum sink current: 100 mA - Applied voltage: 30 V DC or less (between output and 0 V) - Residual voltage: 2 V or less (at 100 mA sink current)
Output:Output operation	Normally open
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
	<p>surface and leave for 30 min.</p> <p>2. Regard the heat shock test in 1 as one cycle and perform 20 cycles.</p> <p>3. Leave in water at a depth of 1 m 3.281 ft in water for 500 hours.</p> <p>4. After tests 1 to 3, insulation resistance, voltage withstandability, current consumption, and sensing ranges must meet the standard values.</p> <p>(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.</p>
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 +158 °F: 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



Item	Specifications
Cable	0.15 mm ² 3-core oil, heat and cold resistant cabtyre 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

- DP-102A-E-P | Dual Display Digital Pressure Sensor [For Gas] DP-100 >
- DP-102A | Dual Display Digital Pressure Sensor [For Gas] DP-100 >
- DP-102-E-P | Dual Display Digital Pressure Sensor [For Gas] DP-100 >
- DP-102 | Dual Display Digital Pressure Sensor [For Gas] DP-100 >
- DP-101A-E-P | Dual Display Digital Pressure Sensor [For Gas] DP-100 >

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Potentiometers
Transparent
Conductive Film
Cooling Fan

FA Sensors & Components

Fiber Sensors	Sensor Options	Static Control Devices
Photoelectric Sensors / Laser Sensors	Wire-Saving Systems	Laser Markers / 2D Code Readers
Micro Photoelectric Sensors	Programmable Controllers / Motion Controller	Machine Vision System
Light Curtains / Safety Components	Human Machine Interface	Energy Management Solutions
Area Sensors		

Motors for FA &
Industrial
Application

AC Servo
Motors for HVAC &
Automotive



Inductive	Pressure
Proximity	Sensors / Flow
Sensors	Sensors
Particular Use	Measurement
Sensors	Sensors

