

- FIBER SENSORS
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- PHOTO-ELECTRIC SENSORS
- MICRO PHOTO-ELECTRIC SENSORS
- AREA SENSORS
- LIGHT CURTAINS/SAFETY COMPONENTS
- PRESSURE / FLOW SENSORS
- INDUCTIVE PROXIMITY SENSORS
- PARTICULAR USE SENSORS
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- WIRE-SAVING SYSTEMS
- MEASURE-MENT SENSORS
- STATIC ELECTRICITY PREVENTION DEVICES
- LASER MARKERS
- PLC
- HUMAN MACHINE INTERFACES
- ENERGY CONSUMPTION VISUALIZATION COMPONENTS
- FA COMPONENTS
- MACHINE VISION SYSTEMS
- UV CURING SYSTEMS

ORDER GUIDE

Flexible cable type

Flexible cable type is also available for shielded type.
When ordering this type, suffix "-R" to the model No.
(e.g.) Flexible cable type of **GX-3S** is "**GX-3S-R**".

5 m 16.404 ft cable length type

5 m **16.404 ft** cable length type (standard: 3 m **9.843 ft**) is also available. (excluding **GX-4SB**)
When ordering this type, suffix "-C5" to the model No.
(e.g.) 5 m **16.404 ft** cable length type of **GX-3S** is "**GX-3S-C5**".

Refer to table below for 5 m **16.404 ft** cable length type of flexible cable type sensor.

• Table of model Nos.

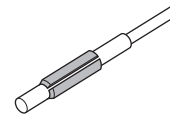
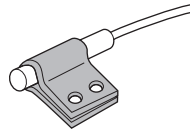
Type		Standard	Flexible cable of 5 m 16.404 ft cable length type
Shielded type	Non-threaded type	GX-3S	GX-3S-R-C5
		GX-3SB	GX-3SB-R-C5
		GX-4S	GX-4S-R-C5
		GX-4SB	—————
		GX-5S	GX-5S-R-C5
	Threaded type	GX-5SB	—————
		GX-5M	GX-5M-R-C5
		GX-5MB	—————
		GX-8M	GX-8M-R-C5
		GX-8MB	GX-8MB-R-C5

Accessories

- **MS-SS3** (Sensor mounting bracket for **GX-3S** type)
- **MS-SS3-2** (C bracket for **GX-3S** type)
- **MS-SS5** (Sensor mounting bracket for **GX-5S** type)

- **MS-SS3**
- **MS-SS5**

- **MS-SS3-2**



By using the C bracket, the applicable tightening force can be doubled.

- Selection Guide
- Amplifier Built-in
- Amplifier-separated
- GX-F/H**
- GXL**
- GL**
- GX-M**
- GX-U/GX-FU/GX-N
- GX**

SPECIFICATIONS**Non-threaded type**

Type		Shielded type											
		Flexible cable				Flexible cable				Flexible cable			
Item	Model No.	GX-3S	GX-3SB	GX-3S-R	GX-3SB-R	GX-4S	GX-4SB	GX-4S-R	GX-4SB-R	GX-5S	GX-5SB	GX-5S-R	GX-5SB-R
Max. operation distance (Note 2)		0.8 mm 0.031 in ±15 %								1 mm 0.039 in ±15 %			
Stable sensing range (Note 2)		0 to 0.6 mm 0 to 0.024 in								0 to 0.8 mm 0 to 0.031 in			
Standard sensing object		Iron sheet 5 × 5 × t 1 mm 0.197 × 0.197 × t 0.039 in								Iron sheet 6 × 6 × t 1 mm 0.236 × 0.236 × t 0.039 in			
Hysteresis		15 % or less of operation distance (with standard sensing object)											
Repeatability		20 μm 0.787 mil or less								8 μm 0.315 mil or less			
Supply voltage		12 to 24 V DC ±10 % Ripple P-P 10 % or less								10 to 30 V DC Ripple P-P 10 % or less			
Current consumption		15 mA or less											
Output		NPN open-collector transistor <ul style="list-style-type: none"> • Maximum sink current: 50 mA • Applied voltage: 30 V DC or less (between output and 0 V) • Residual voltage: 0.4 V or less (at 50 mA sink current) 								NPN open-collector transistor <ul style="list-style-type: none"> • Maximum sink current: 200 mA (Note 3) • Applied voltage: 30 V DC or less (between output and 0 V) • Residual voltage: 1.5 V or less (at 200 mA sink current) 0.4 V or less (at 50 mA sink current) 			
	Utilization category	DC-12 or DC-13											
	Output operation	Normally open	Normally closed	Normally open	Normally closed	Normally open	Normally closed	Normally open	Normally closed	Normally open	Normally closed	Normally open	Normally closed
	Short-circuit protection	—								Incorporated			
Max. response frequency		1 kHz								1.5 kHz			
Operation indicator		Red LED (lights up when the output is ON)											
Environmental resistance	Pollution degree	3 (Industrial environment)											
	Protection	IP67 (IEC)											
	Ambient temperature	-25 to +70 °C -13 to +158 °F , Storage: -25 to +80 °C -13 to +176 °F											
	Ambient humidity	35 to 95 % RH, Storage: 35 to 95 % RH								35 to 85 % RH, Storage: 35 to 95 % RH			
	EMC	EN 60947-5-2											
	Voltage withstandability	500 V AC for one min. between all supply terminals connected together and enclosure											
	Insulation resistance	5 MΩ, or more, with 250 V DC megger between all supply terminals connected together and enclosure								50 MΩ, or more, with 500 V DC megger between all supply terminals connected together and enclosure			
	Vibration resistance	10 to 55 Hz frequency, 1.5 mm 0.059 in amplitude in X, Y and Z directions for two hours each											
	Shock resistance	200 m/s ² acceleration (20 G approx.) in X, Y and Z directions for ten times each								300 m/s ² acceleration (30 G approx.) in X, Y and Z directions for ten times each			
Sensing range variation	Temperature characteristics	Over ambient temperature range -25 to +70 °C -13 to +158 °F : Within ±20 % of sensing range at +20 °C +68 °F								Over ambient temperature range -25 to +70 °C -13 to +158 °F : Within ±15 % of sensing range at +20 °C +68 °F			
	Voltage characteristics	Within ±2 % for ±10 % fluctuation of the supply voltage								Within ±2.5 % for ±15 % fluctuation of the supply voltage			
Material		Enclosure: Stainless steel (SUS304), Resin part: TPX								Enclosure: Brass (Nickel plated) Resin part: ABS			
Cable		0.08 mm ² 3-core oil, heat and cold resistant cable, 3 m 9.843 ft long	0.1 mm ² 3-core flexible, oil and heat resistant cable, 3 m 9.843 ft long	0.08 mm ² 3-core oil, heat and cold resistant cable, 3 m 9.843 ft long	0.1 mm ² 3-core flexible, oil and heat resistant cable, 3 m 9.843 ft long	0.14 mm ² 3-core oil, heat and cold resistant cable, 3 m 9.843 ft long	0.15 mm ² 3-core flexible, oil and heat resistant cable, 3 m 9.843 ft long	0.14 mm ² 3-core oil, heat and cold resistant cable, 3 m 9.843 ft long	0.15 mm ² 3-core flexible, oil and heat resistant cable, 3 m 9.843 ft long				
Cable extension		Extension up to total 100 m 328.084 ft is possible with 0.3 mm ² , or more, cable.											
Weight		Net weight: 30 g approx.								Net weight: 55 g approx.			
Accessories		MS-SS3 (Sensor mounting bracket): 1 pc. MS-SS3-2 (C bracket): 1 pc.								MS-SS5 (Sensor mounting bracket): 1 pc.			

Notes: 1) Where measurement conditions have not been specified precisely, the conditions used were an ambient temperature of +23 °C **+73.4 °F**.

2) The maximum operation distance stands for the maximum distance for which the sensor can detect the standard sensing object.

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.

3) The maximum sink current varies depending on the ambient temperature. Refer to "**I/O CIRCUIT AND WIRING DIAGRAMS** (p.870)" for details.

FIBER
SENSORSLASER
SENSORSPHOTO-
ELECTRIC
SENSORSMICRO
PHOTO-
ELECTRIC
SENSORSAREA
SENSORSLIGHT
CURTAINS /
SAFETY
COMPONENTSPRESSURE /
FLOW
SENSORSINDUCTIVE
PROXIMITY
SENSORSPARTICULAR
USE
SENSORSSENSOR
OPTIONSSIMPLE
WIRE-SAVING
UNITSWIRE-SAVING
SYSTEMSMEASURE-
MENT
SENSORSSTATIC
ELECTRICITY
PREVENTION
DEVICESLASER
MARKERS

PLC

HUMAN
MACHINE
INTERFACESENERGY
CONSUMPTION
VISUALIZATION
COMPONENTSFA
COMPONENTSMACHINE
VISION
SYSTEMSUV
CURING
SYSTEMSSelection
GuideAmplifier
Built-inAmplifier-
separated**GX-F/H****GXL****GL****GX-M**GX-UGX-FU/
GX-N**GX**