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.

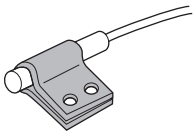
• **Table of model Nos.**

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**
		GX-5SB	———
	Threaded type	**GX-5M**	**GX-5M-R-C5**
		GX-5MB	———
		GX-8M	**GX-8M-R-C5**
		GX-8MB	**GX-8MB-R-C5**

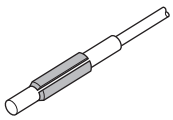
Accessories

• **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.

SPECIFICATIONS

Non-threaded type

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
Type	Shielded type											
			Flexible cable				Flexible cable				Flexible cable	
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 • 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 • 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)											
Environmental resistance: Protection	IP67 (IEC)											
Environmental resistance: Ambient temperature	–25 to + 70 °C –13 to +158 °F, Storage: –25 to +80 °C –13 to +176 °F											
Environmental resistance: Ambient humidity	35 to 95 % RH, Storage: 35 to 95 % RH								35 to 85 % RH, Storage: 35 to 95 % RH			
Environmental resistance: EMC	EN 60947-5-2											
Environmental resistance: Voltage withstandability	500 V AC for one min. between all supply terminals connected together and enclosure											
Environmental resistance: 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			
Environmental resistance: Vibration resistance	10 to 55 Hz frequency, 1.5 mm 0.059 in amplitude in X, Y and Z directions for two hours each											
Environmental resistance: Shock resistance	200 m/s² acceleration (20 G approx.) in X, Y and Z directions for ten times each								300 m/s² 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			
Sensing range variation: 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 mm² 3-core oil, heat and cold resistant cabtyre cable, 3 m 9.843 ft long		0.1 mm² 3-core flexible, oil and heat resistant cabtyre cable, 3 m 9.843 ft long		0.08 mm² 3-core oil, heat and cold resistant cabtyre cable, 3 m 9.843 ft long		0.1 mm² 3-core flexible, oil and heat resistant cabtyre cable, 3 m 9.843 ft long		0.14 mm² 3-core oil, heat and cold resistant cabtyre cable, 3 m 9.843 ft long		0.15 mm² 3-core flexible, oil and heat resistant cabtyre cable, 3 m 9.843 ft long	
Cable extension	Extension up to total 100 m 328.084 ft is possible with 0.3 mm², 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.