

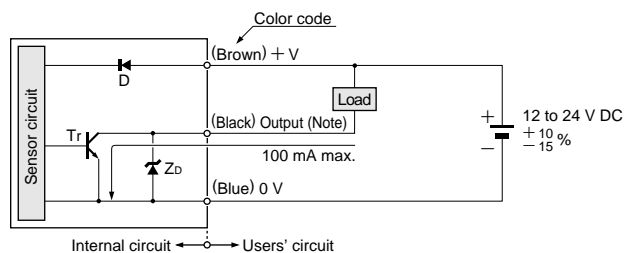
SPECIFICATIONS

Item	Type	Shielded type						Non-shielded type					
	Model No.	GX-N12M	GX-N12MB	GX-N18M	GX-N18MB	GX-N30M	GX-N30MB	GX-N12ML	GX-N12MLB	GX-N18ML	GX-N18MLB	GX-N30ML	GX-N30MLB
Max. operation distance (Note 1)		3 mm 0.118 in ± 10 %		7 mm 0.276 in ± 10 %		10 mm 0.394 in ± 10 %		8 mm 0.315 in ± 10 %		15 mm 0.591 in ± 10 %		22 mm 0.866 in ± 10 %	
Stable sensing range (Note 1)		0 to 2.4 mm 0 to 0.094 in		0 to 5.6 mm 0 to 0.220 in		0 to 8 mm 0 to 0.315 in		0 to 6.4 mm 0 to 0.252 in		0 to 12 mm 0 to 0.472 in		0 to 17.6 mm 0 to 0.693 in	
Standard sensing object		Iron sheet 12 X 12 X t 1 mm 0.472 X 0.472 X t 0.039 in		Iron sheet 18 X 18 X t 1 mm 0.709 X 0.709 X t 0.039 in		Iron sheet 30 X 30 X t 1 mm 1.181 X 1.181 X t 0.039 in		Iron sheet 30 X 30 X t 1 mm 1.181 X 1.181 X t 0.039 in		Iron sheet 50 X 50 X t 1 mm 1.969 X 1.969 X t 0.039 in		Iron sheet 70 X 70 X t 1 mm 2.756 X 2.756 X t 0.039 in	
Hysteresis		20 % or less of operation distance											
Supply voltage		12 to 24 V DC $\pm 10\%$ Ripple P-P 10 % or less											
Current consumption		10 mA or less											
Output		NPN open-collector transistor <ul style="list-style-type: none"> • Maximum sink current: 100 mA • Applied voltage: 30 V DC or less (between output and 0 V) • Residual voltage: 1.5 V or less (at 100 mA sink current) 0.4 V or less (at 16 mA sink current) 											
	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		450 Hz		300 Hz		300 Hz		350 Hz		100 Hz		100 Hz	
Operation indicator		Orange LED (lights up when the output is ON)											
Environmental resistance	Protection	IP67 (IEC), IP67g (JEM)											
	Ambient temperature	- 25 to + 70 °C - 13 to + 158 °F, Storage: - 30 to + 80 °C - 22 to + 176 °F											
	Ambient humidity	45 to 85 % RH, Storage: 35 to 95 % RH											
	Noise immunity	Power line: 240 Vp, 0.5 μs pulse width (with noise simulator)											
	Voltage withstandability	1,000 V AC for one min. between all supply terminals connected together and enclosure											
	Insulation resistance	50 MΩ, or more, with 250 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	1,000 m/s ² acceleration (100 G approx.) in X, Y and Z directions for three times each												
Sensing range variation	Temperature characteristics	Over ambient temperature range - 25 to + 70 °C - 13 to + 158 °F: Within ± 10 % of sensing range at + 20 °C + 68 °F											
	Voltage characteristics	Within ± 2 % for ± 10 % fluctuation of the supply voltage											
Material		Enclosure: Brass (Nickel plated), Sensing part: Nylon, Indicator part: Nylon											
Cable		0.3 mm ² 3-core oil, heat and cold resistant cabtyre cable, 2 m 6.562 ft long											
Cable extension		Extension up to total 100 m 328.084 ft is possible with 0.3 mm ² , or more, cable.											
Weight (Note 2)		65 g approx.		110 g approx.		240 g approx.		65 g approx.		110 g approx.		240 g approx.	
Accessories		Nut: 2 pcs., Toothed lock washer: 1 pc.											

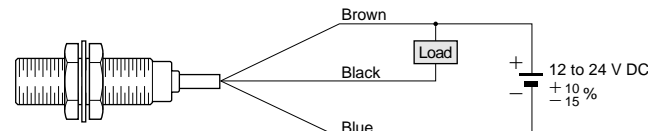
Notes: 1) The maximum operation distance stands for the maximum distance for which the sensor can detect the standard sensing object. The stable sensing range stands for the sensing range for which the sensor can stably detect the standard sensing object even if there is an ambient temperature drift and/or supply voltage fluctuation.
 2) The given weight includes the weight of two nuts and one toothed lock washer.

I/O CIRCUIT AND WIRING DIAGRAMS

I/O circuit diagram



Wiring diagram



Note: If a capacitive load is directly connected to the output, malfunction may occur.

Symbols ... D : Reverse supply polarity protection diode
 Zd: Surge absorption zener diode
 Tr : NPN output transistor