

SPECIFICATIONS

Item	Model No.	Type	Boss type							
			NPN output				PNP output			
			Front sensing		Top sensing		Front sensing		Top sensing	
			Different frequency		Different frequency		Different frequency		Different frequency	
	Normally open	GL-N12FX10 (Note 1)	GL-N12FI X10	GL-N12HX10	GL-N12HI X10	GL-N12F-P X10	GL-N12FI-P X10	GL-N12H-PX10	GL-N12HI-P X10	
	Normally closed	GL-N12FBX10	GL-N12FIB X10	GL-N12HB X10	GL-N12HIB X10	GL-N12FB-P X10	GL-N12FIB-P X10	GL-N12HB-PX10	GL-N12HIB-P X10	
Max. operation distance (Note 2)		4 ± 0.5 mm 0.157 ± 0.020 in								
Stable sensing range (Note 2)		0 to 3 mm 0 to 0.118 in								
Standard sensing object		Iron sheet 20 × 20 × t 1 mm 0.787 × 0.787 × t 0.039 in								
Hysteresis		20 % or less of operation distance								
Supply voltage		12 to 24 V DC ± 10 % Ripple P-P 10 % or less								
Current consumption		10 mA or less				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: 1 V or less (at 100 mA sink current) 0.4 V or less (at 16 mA sink current)				PNP open-collector transistor • Maximum source current: 100 mA • Applied voltage: 30 V DC or less (between output and +V) • Residual voltage: 1 V or less (at 100 mA source current) 0.4 V or less (at 16 mA source current)				
Utilization category		DC-12 or DC-13								
Max. response frequency		1.3 kHz								
Operation indicator		Orange LED (lights up when the output is ON)								
Environmental resistance	Pollution degree		3 (Industrial environment)							
	Protection		IP67 (IEC)							
	Ambient temperature		- 10 to + 55 °C + 14 to + 131 °F, Storage: - 25 to + 70 °C - 13 to + 158 °F							
	Ambient humidity		45 to 85 % RH, Storage: 35 to 95 % RH							
	EMC		EN 50081-2, EN 50082-2, EN 60947-5-2							
	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							
	Shock resistance		1,000 m/s ² (100 G approx.) acceleration in X, Y and Z directions for three times each							
Sensing range variation	Temperature characteristics		Over ambient temperature range - 10 to + 55 °C + 14 to + 131 °F: Within $\pm \frac{15}{10}$ % of sensing range at 20 °C + 68 °F							
	Voltage characteristics		Within ± 2 % for ± 10 % fluctuation of the supply voltage							
Material		Enclosure: Polyallylate								
Cable		0.18 mm ² 3-core 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.								
Weight		20 g approx.								

Notes: 1) The without boss type is also available.
 The specifications are the same as for the with boss type. (However, max. response frequency: 500 Hz, operation indicator: Red LED)
 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.

GXL

GL-6

GL-8/8U

Amplifier Built-in
GL-N12

GL-18H/18HL

GX-U/FU

GX-N

GX

Amplifier-separated
GA-10/GH