

GL-6

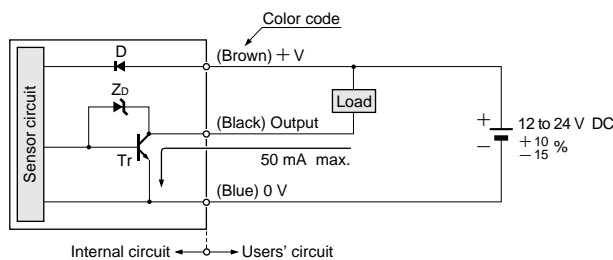
SPECIFICATIONS

Type		Miniature							
		Front sensing				Top sensing			
Item	Model No.	Different frequency		Different frequency		Different frequency		Different frequency	
		GL-6F	GL-6FI	GL-6FB	GL-6FIB	GL-6H	GL-6HI	GL-6HB	GL-6HIB
Max. operation distance (Note)		1.6 mm 0.063 in ± 15 %							
Stable sensing range (Note)		0 to 1.2 mm 0 to 0.047 in							
Standard sensing object		Iron sheet 12 × 12 × t 1 mm 0.472 × 0.472 × t 0.039 in							
Hysteresis		15 % or less of operation distance							
Supply voltage		12 to 24 V DC $\pm 10\%$ / $\pm 15\%$ Ripple P-P10 % 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: 1 V or less (at 50 mA sink current) 0.4 V or less (at 16 mA sink current)							
	Utilization category	DC-12 or DC-13							
	Output operation	Normally open	Normally closed	Normally open	Normally open	Normally open	Normally open	Normally closed	Normally closed
Max. response frequency		400 Hz							
Operation indicator		Orange LED (lights up when the output is ON)							
Environmental resistance	Pollution degree	3 (Industrial environment)							
	Protection	IP67 (IEC), IP67g (JEM)							
	Ambient temperature	- 10 to + 55 °C + 14 to + 131 °F, Storage: - 30 to + 80 °C - 22 to + 176 °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							
	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 - 10 to + 55 °C + 14 to + 131 °F: within ± 10 % of sensing range at 20 °C + 68 °F							
	Voltage characteristics	Within ± 2 % for ± 10 % fluctuation of the supply voltage							
Material		Enclosure: Polyallylate							
Cable		0.08 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.							
Weight		10 g approx.							
Accessory		MS-GL6-1 (Sensor mounting bracket): 1 pc.							

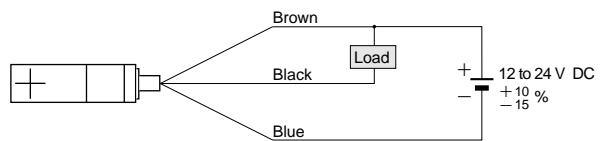
Note: The maximum operation distance stands for the maximum distance for which the sensor can detect the standard sensing object.
 The stable sensing range stands for the sensing range for which the sensor can stably detect the standard sensing object even if there is an ambient temperature drift and/or supply voltage fluctuation.

I/O CIRCUIT AND WIRING DIAGRAMS

I/O circuit diagram



Wiring diagram



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

Note: The output does not incorporate a short-circuit protection circuit. Do not connect it directly to a power supply or a capacitive load.