

## GL SERIES

## Related Information

■ General terms and conditions..... F-17

■ Sensor selection guide ..... P.757~

■ Glossary of terms..... P.1386~

■ General precautions ..... P.1405

Conforming to  
EMC Directive

panasonic-electric-works.net/sunx

2-wire type  
availablePNP output  
type available

Oil resistant

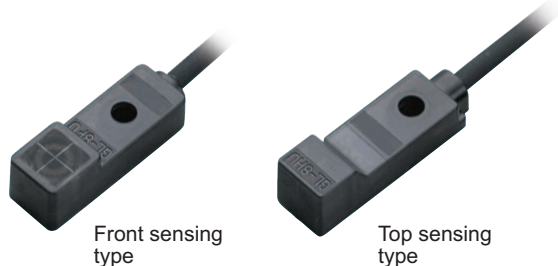
Different freq.  
type available

## Wide variety, high performance in surprisingly small body at low cost

### VARIETIES

#### Wide variation

A wide variety of 46 models, front sensing type / top sensing type, normally open type / normally closed type, as well as, different frequency type, etc., is available.



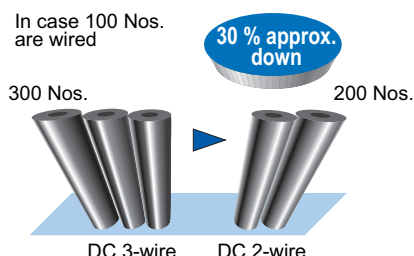
#### Close mounting

Two sensors can be mounted close together because different frequency type are available.

(The **GL-18HL** type can be mounted with a space of 20 mm **0.787 in** between the two sensors.)

#### Energy-efficient and wire-saving **DC 2-wire type**

Its electric current consumption is just 0.8 mA or less and the wiring workload is reduced by about 30 %.

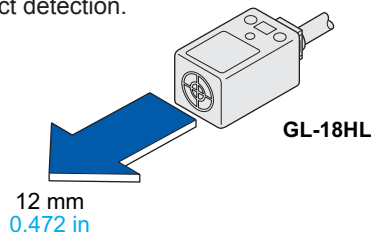


### BASIC PERFORMANCE

#### Long sensing range

**GL-18HL** type offers a long sensing range of 12 mm **0.472 in**.

Small variations in the positions of the sensing objects do not affect detection.



### ENVIRONMENTAL RESISTANCE

#### Protection structure IP67g (JEM)

**GL-18H/18HL** type are resistant to oil and have a protection structure IP67g (JEM).  
(**GL-8U** type: IP67)

### FUNCTIONS

#### Operation indicator

The **GL** series incorporates an operation indicator (orange, **GL-18H/18HL** type: red) for operation check.

### OTHERS

#### Low price

The **GL** series satisfies the need for a low price inductive proximity sensor. It is recommended to large volume users for cost reduction.

The **GL-8U** type are available in units of ten.

FIBER  
SENSORSLASER  
SENSORSPHOTOELECTRIC  
SENSORSMICRO  
PHOTOELECTRIC  
SENSORSAREA  
SENSORSLIGHT  
CURTAINSPRESSURE /  
FLOW  
SENSORSINDUCTIVE  
PROXIMITY  
SENSORSPARTICULAR  
USE SENSORSSENSOR  
OPTIONSSIMPLE  
WIRE-  
SAVING  
UNITSWIRE-  
SAVING  
SYSTEMSMEASUREMENT  
SENSORSSTATIC CONTROL  
DEVICES

ENDOSCOPE

LASER  
MARKERSPLC /  
TERMINALSHUMAN MACHINE  
INTERFACESENERGY CONSUMPTION  
VISUALIZATION  
COMPONENTS

FA COMPONENTS

MACHINE VISION  
SYSTEMSUV CURING  
SYSTEMSSelection  
GuideAmplifier  
Built-inAmplifier-  
separated

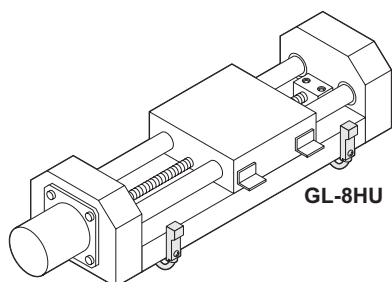
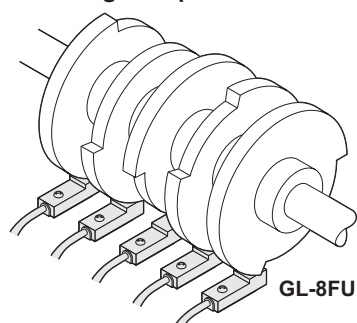
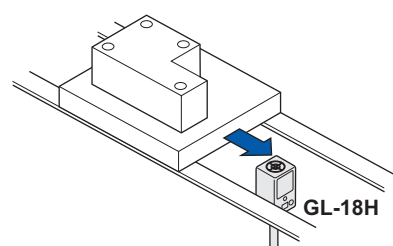
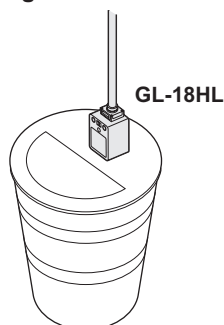
GX-F/H

GXL

GL


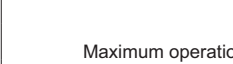
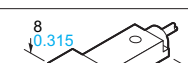
GX-U/GX-FU/  
GX-N

GX

**APPLICATIONS****Detecting table over-run****Detecting cam position****Positioning metal pallet****Detecting aluminum lid**FIBER  
SENSORSLASER  
SENSORSPHOTO-  
ELECTRIC  
SENSORSMICRO  
PHOTO-  
ELECTRIC  
SENSORSAREA  
SENSORSLIGHT  
CURTAINSPRESSURE /  
FLOW  
SENSORSINDUCTIVE  
PROXIMITY  
SENSORSPARTICULAR  
USE  
SENSORSSENSOR  
OPTIONSSIMPLE  
WIRE-SAVING  
UNITSWIRE-SAVING  
SYSTEMSMEASURE-  
MENT  
SENSORSSTATIC  
CONTROL  
DEVICES

ENDOSCOPE

LASER  
MARKERSPLC /  
TERMINALSHUMAN  
MACHINE  
INTERFACESENERGY  
CONSUMPTION  
VISUALIZATION  
COMPONENTSFA  
COMPONENTSMACHINE  
VISION  
SYSTEMSUV  
CURING  
SYSTEMS**ORDER GUIDE****GL-8U type**

Type		Appearance (mm in)	Sensing range (Note 1)	Model No. (Note 2)	Output	Output operation
DC 2-wire	Front sensing		 <p>Maximum operation distance</p> <p>2.5 mm 0.098 in</p> <p>(0 to 1.8 mm 0 to 0.071 in)</p> <p>Stable sensing range</p>	GL-8FU×10	Non-contact DC 2-wire type	Normally open
				GL-8FUI×10		Normally closed
				GL-8FUB×10		Normally open
				GL-8FUIB×10		Normally closed
	Top sensing			GL-8HU×10		Normally open
				GL-8HUI×10		Normally closed
				GL-8HUB×10		Normally open
				GL-8HUIB×10		Normally closed

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) "I" in the model No. indicates a different frequency type.

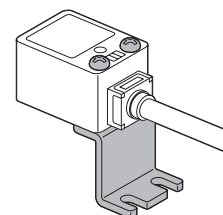
**NOTE: GL-8U type is available in units of ten.****GL-18H/18HL type**

Type	Appearance (mm in)	Sensing range (Note)	Model No.	Output	Output operation
Standard Different frequency		Maximum operation distance 5 mm 0.197 in Stable sensing range (0 to 4 mm 0 to 0.157 in)	GL-18H	NPN open-collector transistor	Normally open
			GL-18HI		Normally open
			GL-18HB		Normally closed
			GL-18HL		Normally open
Long sensing range Different frequency		Maximum operation distance 12 mm 0.472 in Stable sensing range (0 to 10 mm 0 to 0.394 in)	GL-18HL	NPN open-collector transistor	Normally open
			GL-18HLI		Normally open
			GL-18HLB		Normally closed

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.

**Accessory****• MS-GL18HL**

(Sensor mounting bracket for GL-18HL type)



Two M3 (length 25 mm 0.948 in) pan head screws are attached.

Selection  
Guide  
Amplifier  
Built-in  
Amplifier-  
separated

GX-F/H

GXL

GL

GX-UGX-FU/  
GX-N

GX

FIBER  
SENSORSLASER  
SENSORSPHOTO-  
ELECTRIC  
SENSORSMICRO  
PHOTO-  
ELECTRIC  
SENSORSAREA  
SENSORSLIGHT  
CURTAINSPRESSURE /  
FLOW  
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WIRE-SAVING  
UNITSWIRE-SAVING  
SYSTEMSMEASURE-  
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CONTROL  
DEVICES

ENDSCOPE

LASER  
MARKERSPLC /  
TERMINALSHUMAN  
MACHINE  
INTERFACESENERGY  
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VISUALIZATION  
COMPONENTSFA  
COMPONENTSMACHINE  
VISION  
SYSTEMSUV  
CURING  
SYSTEMSSelection  
GuideAmplifier  
Built-inAmplifier-  
separated**GX-F/H****GXL****GL**GX-4/GX-FU/  
GX-N**GX****ORDER GUIDE****5 m 16.404 ft cable length type**

5 m **16.404 ft** cable length type (standard: 1 m **3.281 ft**) is also available for **GL-8U** type (different frequency of normally open type: excluding the type with the model No. having the suffix "IB").

When ordering this type, suffix "-C5" to the model No.

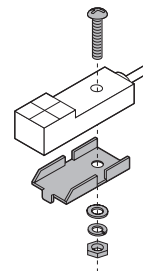
(e.g.) 5 m **16.404 ft** cable length type of **GL-8FUB×10** is "**GL-8FUB-C5×10**".

**NOTE:** **GL-8U** type are available in units of ten.

**OPTIONS**

Designation	Model No.	Description
Sensor mounting bracket	<b>MS-GL8×10</b>	Sensor mounting bracket for <b>GL-8U</b> type.

**NOTE:** Sensor mounting bracket (**MS-GL8×10**) is available in units of ten.

**Sensor mounting bracket****• MS-GL8×10**

1 pc. each of M3 (length 12 mm **0.472 in**) truss head screw, nut, spring washer and plain washer is attached.

**SPECIFICATIONS****GL-8U type**

Item		Model No.	Type	DC 2-wire type			
				Front sensing		Top sensing	
				GL-8FU×10	GL-8FUB×10	GL-8HU×10	GL-8HUB×10
		Different frequency	GL-8FUI×10	GL-8FUIB×10	GL-8HUI×10	GL-8HUIB×10	
Max. operation distance (Note 2)				2.5 mm 0.098 in ±20 %			
Stable sensing range (Note 2)				0 to 1.8 mm 0 to 0.071 in			
Standard sensing object				Iron sheet 15 × 15 × t 1 mm 0.591 × 0.591 × t 0.039 in			
Hysteresis				20 % or less of operation distance (with standard sensing object)			
Supply voltage				12 to 24 V DC ±10 %    Ripple P-P 10 % or less			
Current consumption				0.8 mA or less (Note 3)			
Output				Non-contact DC 2-wire type <ul style="list-style-type: none"><li>• Load current: 3 to 70 mA (Note 5)</li><li>• Residual voltage: 3 V or less (Note 6)</li></ul>			
		Utilization category	DC-12 or DC-13				
		Output operation	Normally open	Normally closed	Normally open	Normally closed	
		Short-circuit protection	Incorporated				
Max. response frequency				1kHz			
Operation indicator				Orange 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: -30 to +80 °C -22 to +176 °F				
	Ambient humidity		35 to 95 % RH, Storage: 35 to 95 % RH				
	EMC		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 <sup>2</sup> 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 $\pm\frac{+10}{-15}$ % of sensing range at +20 °C +68 °F				
	Voltage characteristics		Within ±2 % for ±10 % fluctuation of the supply voltage				
Material				Enclosure: Polyallylate			
Cable				0.15 mm <sup>2</sup> 2-core cabtyre cable, 1 m 3.281 ft long			
Cable extension				Extension up to total 50 m 164.042 ft is possible with 0.3 mm <sup>2</sup> , or more, cable.			
Weight				Net weight : 12 g approx.			

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) It is the leakage current when the output is in the OFF state.

4) When the ambient temperature is +60 to +70 °C **+140 to +158 °F**, the maximum sink current varies depending on the ambient humidity. Refer to "I/O CIRCUIT AND WIRING DIAGRAMS" for more details.

5) The maximum load current varies depending on the ambient temperature. Refer to "I/O CIRCUIT AND WIRING DIAGRAMS" for more details.

6) When the cable is extended, the residual voltage becomes larger according to the resistance of the cable.

**SPECIFICATIONS****GL-18H/18HL type**

Type		Standard			Long sensing range		
		Different frequency			Different frequency		
Item	Model No.	GL-18H	GL-18HI	GL-18HB	GL-18HL	GL-18HLI	GL-18HLB
Max. operation distance (Note 2)		5 mm 0.197 in ±10 %			12 mm 0.472 in ±10 %		
Stable sensing range (Note 2)		0 to 4 mm 0 to 0.157 in			0 to 10 mm 0 to 0.394 in		
Standard sensing object		Iron sheet 25 × 25 × t 1 mm 0.984 × 0.984 × t 0.039 in			Iron sheet 40 × 40 × t 1 mm 1.575 × 1.575 × t 0.039 in		
Hysteresis		15 % or less of operation distance (with standard sensing object)					
Supply voltage		10 to 30 V DC    Ripple P-P 10 % or less					
Current consumption		10 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: 1.5 V or less (at 100 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 closed
Max. response frequency		1kHz			500Hz		
Operation indicator		Red LED (lights up when the output is ON)					
Environmental resistance	Pollution degree		3 (Industrial environment)				
	Protection		IP67 (IEC), IP67g (JEM)				
	Ambient temperature		−25 to +70 °C −13 to +158 °F, Storage: −25 to +70 °C −13 to +158 °F				
	Ambient humidity		45 to 85 % RH, Storage: 45 to 85 % RH				
	EMC		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/s² 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: Polyallylate					
Cable		0.3 mm² 3-core oil 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 mm², or more, cable.					
Weight		Net weight : 45 g approx.					
Accessory					MS-GL18HL (Sensor mounting bracket): 1 set		

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

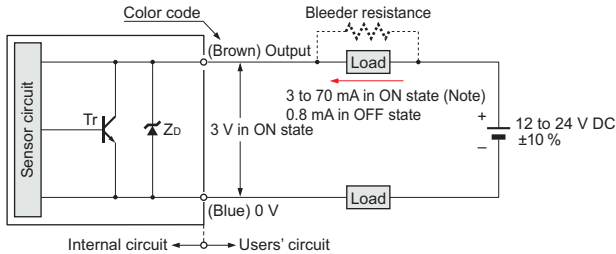
2) The maximum operation distance stands for the maximum distance for which the sensor can detect the standard sensing object.

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.

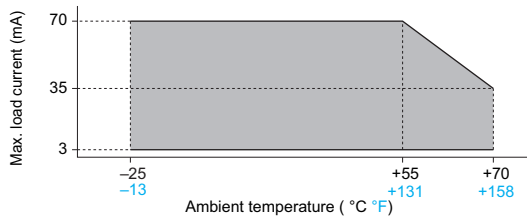
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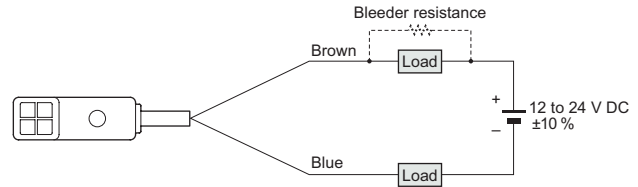
LASER  
MARKERSPLC /  
TERMINALSHUMAN  
MACHINE  
INTERFACESENERGY  
CONSUMPTION  
VISUALIZATION  
COMPONENTSFA  
COMPONENTSMACHINE  
VISION  
SYSTEMSUV  
CURING  
SYSTEMSSelection  
GuideAmplifier  
Built-inAmplifier-  
separated**GX-F/H****GXL****GL**GX-U/GX-FU/  
GX-N**GX**

**I/O CIRCUIT AND WIRING DIAGRAMS****DC 2-wire type****GL-8U type****I/O circuit diagram**

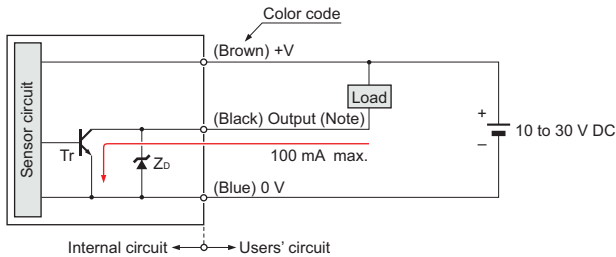
Note: The maximum load current varies depending on the ambient temperature.



Symbols ... ZD: Surge absorption zener diode  
Tr: NPN output transistor

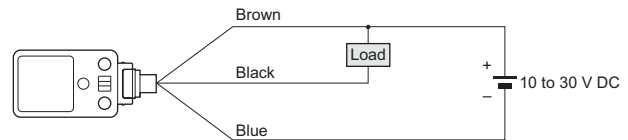
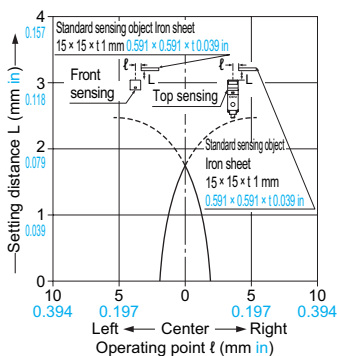
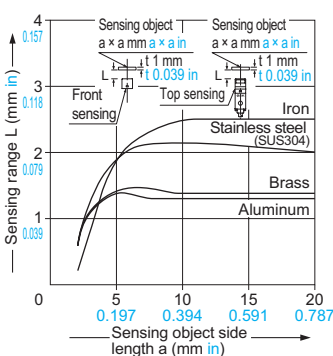
**Wiring diagram****Conditions for the load**

- 1) The load should not be actuated by the leakage current (0.8 mA) in the OFF state.
- 2) The load should be actuated by (supply voltage – 3 V) in the ON state.
- 3) The current in the ON state should be between 3 to 70 mA DC.  
[ In case the current is less than 3 mA, connect a bleeder resistance in parallel to the load so that a current of 3 mA, or more, flows. ]

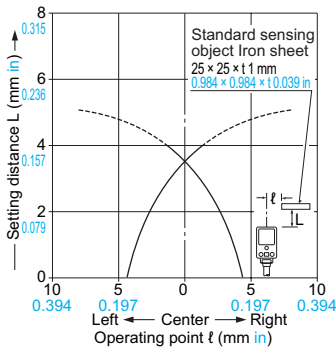
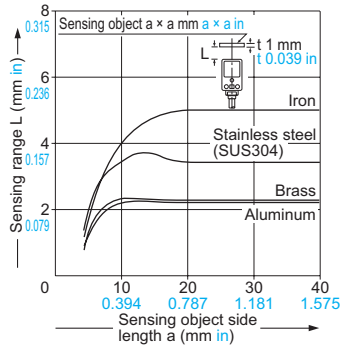
**NPN output type****GL-18H/18HL type****I/O circuit diagram**

Note: Please carry out the wiring carefully since protection circuit against reverse power supply connection is not incorporated. Further, the output does not incorporate a short-circuit protection circuit. Do not connect it directly to a power supply or a capacitive load.

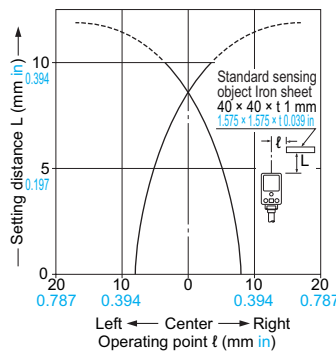
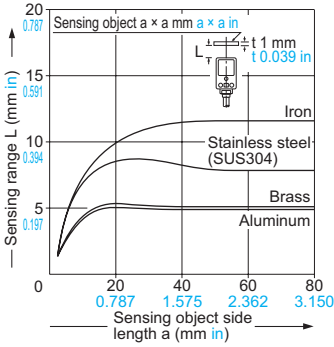
Symbols ... ZD: Surge absorption zener diode  
Tr: NPN output transistor

**Wiring diagram****SENSING CHARACTERISTICS (TYPICAL)****GL-8U type****Sensing field****Correlation between sensing object size and sensing range**

As the sensing object size becomes smaller than the standard size (iron sheet 15 × 15 × t 1 mm 0.591 × 0.591 × t 0.039 in), the sensing range shortens as shown in the left figure.

**SENSING CHARACTERISTICS (TYPICAL)****GL-18H type****Sensing field****Correlation between sensing object size and sensing range**

As the sensing object size becomes smaller than the standard size (iron sheet 25 × 25 × t 1 mm 0.984 × 0.984 × t 0.039 in), the sensing range shortens as shown in the left figure.

**GL-18HL type****Sensing field****Correlation between sensing object size and sensing range**

As the sensing object size becomes smaller than the standard size (iron sheet 40 × 40 × t 1 mm 1.575 × 1.575 × t 0.039 in), the sensing range shortens as shown in the left figure.

**PRECAUTIONS FOR PROPER USE**

Refer to General precautions.

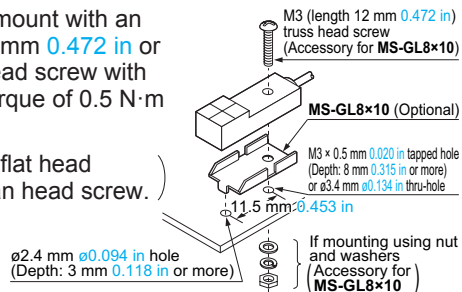


- Never use this product as a sensing device for personnel protection.
- In case of using sensing devices for personnel protection, use products which meet laws and standards, such as OSHA, ANSI or IEC etc., for personnel protection applicable in each region or country.

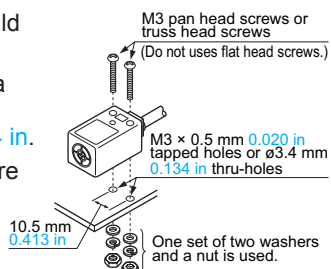
**Mounting****GL-8U type**

- Make sure to mount with an M3 (length 12 mm 0.472 in or more) truss head screw with a tightening torque of 0.5 N·m or less.

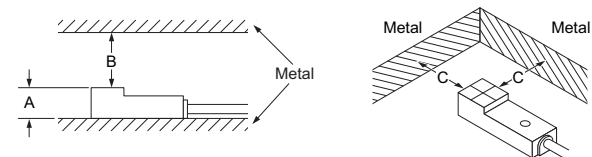
(Do not use a flat head screw or a pan head screw.)

**GL-18H/18HL type**

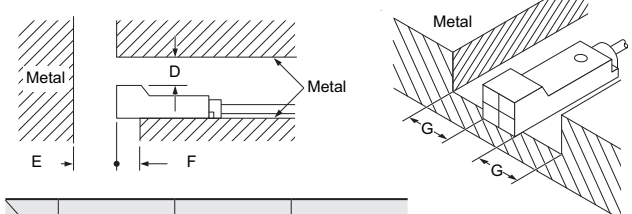
- The tightening torque should be 0.5 N·m or less.
- To mount the sensor with a nut, the thru-hole diameter should be 3.4 mm 0.134 in.
- Screws, nuts or washers are not supplied. Please arrange them separately.

**Influence of surrounding metal**

- When there is a metal near the sensor, keep the minimum separation distance specified below.

**Front sensing type**

	GL-8FU□×10
A	7.4 mm 0.291 in
B	8 mm 0.315 in
C	3 mm 0.118 in

**Top sensing type, GL-18H/18HL type**

	GL-8HU□×10	GL-18H□	GL-18HL□
D	3 mm 0.118 in	5 mm 0.197 in	25 mm 0.984 in
E	10 mm 0.394 in	20 mm 0.787 in	60 mm 2.362 in
F	3 mm 0.118 in	0 mm 0 in	20 mm 0.787 in (Note)
G	3 mm 0.118 in	5 mm 0.197 in	30 mm 1.181 in

Note: When mounting the GL-18HL□ to an insulator or using the attached sensor mounting bracket, "F" becomes 0 mm 0 in.

FIBER SENSORS

LASER SENSORS

PHOTO-ELECTRIC SENSORS

MICRO PHOTO-ELECTRIC SENSORS

AREA SENSORS

LIGHT CURTAINS

PRESSURE / FLOW SENSORS

INDUCTIVE PROXIMITY SENSORS

PARTICULAR USE SENSORS

SENSOR OPTIONS

SIMPLE WIRE-SAVING UNITS

WIRE-SAVING SYSTEMS

MEASURE-MENT SENSORS

STATIC CONTROL DEVICES

ENDOSCOPE

LASER MARKERS

PLC / TERMINALS

HUMAN MACHINE INTERFACES

ENERGY CONSUMPTION VISUALIZATION COMPONENTS

FA COMPONENTS

MACHINE VISION SYSTEMS

UV CURING SYSTEMS

Selection Guide

Amplifier Built-in

Amplifier-separated

GX-F/H

GXL

GL

GX-UGX-FU/ GX-N

GX



## PRECAUTIONS FOR PROPER USE

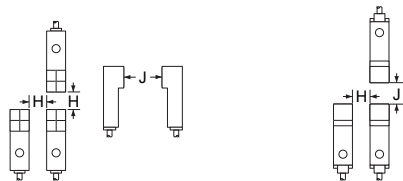
Refer to General precautions.

### Mutual interference prevention

- When two or more sensors are installed in parallel or face to face, keep the minimum separation distance specified below to avoid mutual interference.

#### Front sensing type

#### Top sensing type GL-18H/18HL type



		H	J
GL-8FU□×10	Between "I" type and non "I" type.	0 mm (Note 2) 0 in	15 mm 0.591 in
	Between two "I" types or two non "I" types.	20 mm 0.787 in	40 mm 1.575 in
GL-8HU□×10	Between "I" type and non "I" type.	0 mm (Note 2) 0 in	15 mm 0.591 in
	Between two "I" types or two non "I" types.	25 mm 0.984 in	40 mm 1.575 in
GL-18H type	Between "I" type and non "I" type.	0 mm (Note 2) 0 in	20 mm 0.787 in
	Between two "I" types or two non "I" types.	40 mm 1.575 in	70 mm 2.756 in
GL-18HL type	Between "I" type and non "I" type.	20 mm 0.787 in	40 mm 1.575 in
	Between two "I" types or two non "I" types.	130 mm 5.118 in	200 mm 7.874 in

Notes: 1) "I" in the model No. specifies the different frequency type.

- 2) Close mounting is possible for up to two sensors. When mounting three sensors or more at an equal spacing, align the model with "I" and the model without "I" alternately.

The minimum value of dimension "H" should be as given below.

GL-8FU□×10: 6 mm 0.236 in

GL-8HU□×10: 8.5 mm 0.335 in

GL-18H type: 11 mm 0.433 in

### Sensing range

- The sensing range is specified for the standard sensing object.
- With a non-ferrous metal, the sensing range is obtained by multiplying with the correction coefficient specified below.
- Further, the sensing range also changes if the sensing object is smaller than the standard sensing object or if the sensing object is plated.

### Correction coefficient

	GL-8U type	GL-18H type	GL-18HL type
Iron	1	1	1
Stainless steel (SUS304)	0.80 approx.	0.68 approx.	0.65 approx.
Brass	0.54 approx.	0.45 approx.	0.42 approx.
Aluminum	0.52 approx.	0.43 approx.	0.41 approx.

### Wiring

- Please carry out the wiring carefully since protection circuit against reverse power supply connection is not incorporated. (Excluding GL-8U type)
- The output does not incorporate a short-circuit protection circuit. Do not connect it directly to a power supply or a capacitive load. (Excluding GL-8U type)
- Make sure that the power supply is off while wiring.
- Verify that the supply voltage variation is within the rating.
- If power is supplied from a commercial switching regulator, ensure that the frame ground (F.G.) terminal of the power supply is connected to an actual ground.
- In case noise generating equipment (switching regulator, inverter motor, etc.) is used in the vicinity of this sensor, connect the frame ground (F.G.) terminal of the equipment to an actual ground.
- Do not run the wires together with high-voltage lines or power lines or put them in the same raceway. This can cause malfunction due to induction.

### Others

- Do not use during the initial transient time (50ms) after the power supply is switched on.
- Take care that the sensor does not come in direct contact with oil, grease, or organic solvents, such as, thinner, etc.
- Make sure that the sensing end is not covered with metal dust, scrap or spatter. It will result in malfunction.

FIBER SENSORS

LASER SENSORS

PHOTO-ELECTRIC SENSORS

MICRO PHOTO-ELECTRIC SENSORS

AREA SENSORS

LIGHT CURTAINS

PRESSURE / FLOW SENSORS

INDUCTIVE PROXIMITY SENSORS

PARTICULAR USE SENSORS

SENSOR OPTIONS

SIMPLE WIRE-SAVING UNITS

WIRE-SAVING SYSTEMS

MEASURE-MENT SENSORS

STATIC CONTROL DEVICES

ENDOSCOPE

LASER MARKERS

PLC / TERMINALS

HUMAN MACHINE INTERFACES

ENERGY CONSUMPTION VISUALIZATION COMPONENTS

FA COMPONENTS

MACHINE VISION SYSTEMS

UV CURING SYSTEMS

Selection Guide

Amplifier Built-in

Amplifier-separated

GX-F/H

GXL

GL

GX-J/GX-FU/GX-N

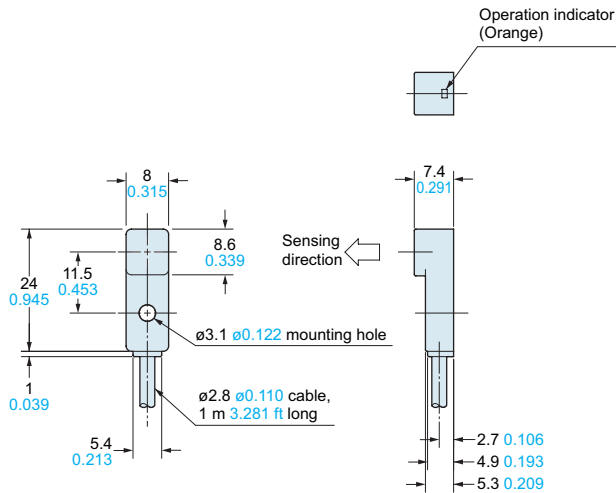
GX

**DIMENSIONS (Unit: mm in)**

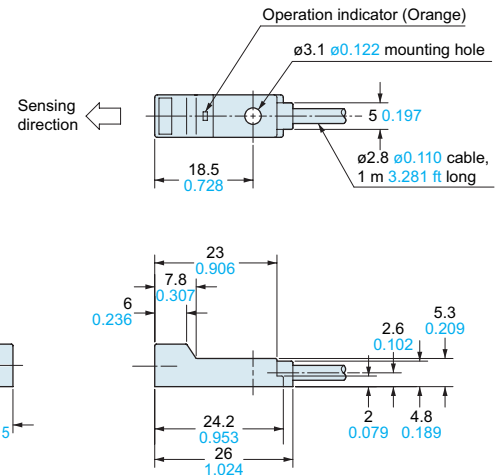
The CAD data in the dimensions can be downloaded from our website.

**GL-8FU□×10**

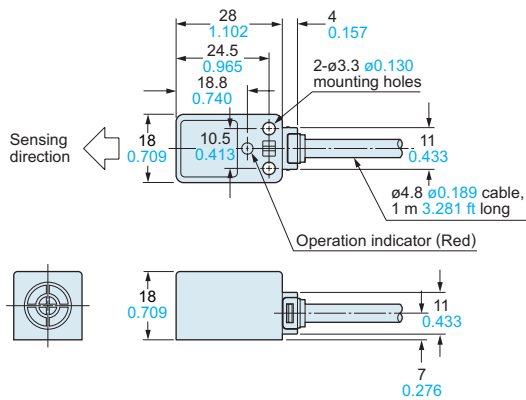
Sensor

**GL-8HU□×10**

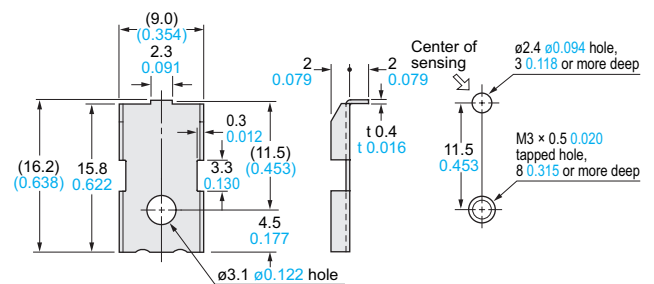
Sensor

**GL-18H□ GL-18HL□**

Sensor

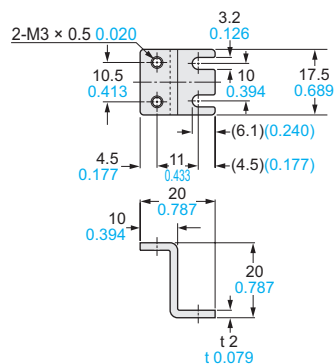
**MS-GL8×10**

Sensor mounting bracket for GL-8U type (Optional)

**Mounting hole dimensions**

Material: Stainless steel (SUS304)

1 pc. each of M3 (length 12 mm 0.472 in) truss head screw, nut, spring washer and plain washer is attached.

**MS-GL18HL** Sensor mounting bracket for GL-18HL type (Accessory)

Material: Aluminum

Two M3 (length 25 mm 0.984 in) pan head screws are attached.

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