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DC 2-wire type Micro-size Inductive Proximity Sensor Amplifier Built-in

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GX-M GX-U/GX-FU/ GX-N

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■ General terms and conditions...... F-7

■ Glossary of terms......P.1482~

■ Sensor selection guide P.803~

■ General precautions P.1485~













High performance in micro-size design

BASIC PERFORMANCE

Versatile mounting

Since the sensor is fingertip size, it can be mounted in a tight space.



Reduced wiring operation

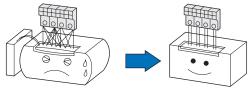
The wiring cost of the DC 2-wire type is 2/3 that of a conventional model.

Besides, the possibility of miswiring is reduced.

Particularly convenient when many sensors are used.

Wiring of the 3-wire type is

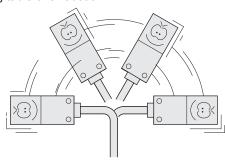
Wiring of the 2-wire type is simple and neat.



ENVIRONMENTAL RESISTANCE

Flexible cable type

The bending durability of its cable is ten times that of the conventional model. The sensor can be mounted on a moving table or a robot arm.



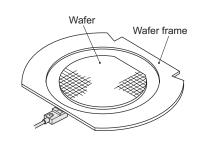
Others

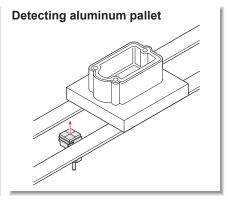
Cost performance

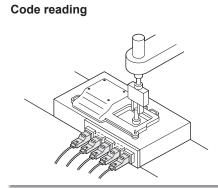
Achieve high performance at an affordable price.

APPLICATIONS

Detecting wafer frame







ORDER GUIDE

GXL-8 type

T	ype	Appearance (mm in)	Sensing range (Note 1)	Model No. (Note 2)	Output	Output operation
	βl			GXL-8FU		Normally open
	sensing	7.4 0.291 0.315 0.787	Maximum	GXL-8FUI		Normany open
	Front s		operation distance	GXL-8FUB		Normally closed
DC 2-wire			2.5 mm 0.098 in	GXL-8FUIB	Non-contact DC 2- wire type	
	sensing	0.315	8 8 9 1	GXL-8HU	Non-conduct Bo 2 while type	Normally open
				GXL-8HUI		
	Top se			GXL-8HUB		Normally closed
	_	0.315		GXL-8HUIB		rvormany 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.

GXL-15 (Standard) type

Ту	pe	Appearance (mm in)	Sensing range (Note 1)	Model No. (Note 2)	Output	Output operation
	βL			GXL-15FU		Normally open
	sensing	0.315 15 0.591 1.260	Maximum operation	GXL-15FUI	Non-contact DC 2- wire type	Normally open
-	Front s		distance	GXL-15FUB		Normally closed
2-wire	ᇤ		5 mm 0.197 in	GXL-15FUIB		
DC 2		\ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \ \	(0 to 4 mm) (0 to 0.157 in)	GXL-15HU		Normally onen
		0.591 0.591 0.591	\	GXL-15HUI		Normally open
	Top se		Stable sensing range	GXL-15HUB		Normally closed
	-	0.591		GXL-15HUIB		Normany 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.

LIGHT CURTAINS / SAFETY COMPONENTS

PRESSURE / FLOW SENSORS

PARTICULAR USE SENSORS

SENSOR OPTIONS

MEASURE-MENT SENSORS

LASER MARKERS

PLC

FA COMPONENTS

MACHINE VISION SYSTEMS

GX-F/H

GL

GX-M GX-U/GX-FU/ GX-N

FIBER SENSORS LASER SENSORS

PHOTO-ELECTRIC SENSORS

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PARTICULAR USE SENSORS SENSOR OPTIONS

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ORDER GUIDE

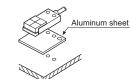
Ту	/ре	Appearance (mm in)	Sensing range (Note 1)	Model No. (Note 2)	Output	Output operation
	βL			GXL-15FLU		Normally open
	sensing	0.315	operation	GXL-15FLUI	B IB Non-contact DC 2- wire type	Normany open
	Fronts			GXL-15FLUB		Normally closed
2-wire	匝			GXL-15FLUIB		
DC 2	sensing	0.591	Stable sensing range	GXL-15HLU		Normally open
				GXL-15HLUI		
	Top se			GXL-15HLUB		Normally closed
		0.591		GXL-15HLUIB		Normany 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.
- 3) To mount the long sensing range **GXL-15** type on a magnetic body, such as iron, the enclosed aluminum sheet, or any other aluminum sheet having a minimum size of 30 × 39.5 × t 0.3 mm 1.181 × 1.555 × t 0.012 in (**GXL-15HLU** type: 30 × 30 × t 0.3 mm 1.181 × 1.181 × t 0.012 in), should be inserted between the sensor and the magnetic body.

However, it is not necessary to use the aluminum sheet when mounting on a non-magnetic body, such as, aluminum or an insulator.



Flexible cable type and 5 m 16.404 ft cable length type

Flexible cable type and 5 m 16.404 ft cable length type (standard: 1 m 3.281 ft) are also available.

• Table of Model Nos.

Ту	ре	Standard	Flexible cable type	5 m 16.404 ft cable length type	Flexible cable of 5 m 16.404 ft cable length type
	ing	GXL-8FU	GXL-8FU-R	GXL-8FU-C5	GXL-8FU-R-C5
	Front sensing	GXL-8FUI	GXL-8FUI-R	GXL-8FUI-C5	GXL-8FUI-R-C5
	nts	GXL-8FUB	GXL-8FUB-R	GXL-8FUB-C5	GXL-8FUB-R-C5
	윤	GXL-8FUIB	GXL-8FUIB-R	GXL-8FUIB-C5	GXL-8FUIB-R-C5
	ing	GXL-8HU	GXL-8HU-R	GXL-8HU-C5	GXL-8HU-R-C5
	sensing	GXL-8HUI	GXL-8HUI-R	GXL-8HUI-C5	GXL-8HUI-R-C5
) S6	GXL-8HUB	GXL-8HUB-R	GXL-8HUB-C5	GXL-8HUB-R-C5
	Тор	GXL-8HUIB	GXL-8HUIB-R	GXL-8HUIB-C5	GXL-8HUIB-R-C5
	ing	GXL-15FU	GXL-15FU-R	GXL-15FU-C5	GXL-15FU-R-C5
	sensing	GXL-15FUI	GXL-15FUI-R	GXL-15FUI-C5	GXL-15FUI-R-C5
ഉ	nt s	GXL-15FUB	GXL-15FUB-R	GXL-15FUB-C5	GXL-15FUB-R-C5
2-wire	Front	GXL-15FUIB	GXL-15FUIB-R	GXL-15FUIB-C5	GXL-15FUIB-R-C5
2	Top sensing	GXL-15HU	GXL-15HU-R	GXL-15HU-C5	GXL-15HU-R-C5
ă		GXL-15HUI	GXL-15HUI-R	GXL-15HUI-C5	GXL-15HUI-R-C5
		GXL-15HUB	GXL-15HUB-R	GXL-15HUB-C5	GXL-15HUB-R-C5
		GXL-15HUIB	GXL-15HUIB-R	GXL-15HUIB-C5	GXL-15HUIB-R-C5
	ng	GXL-15FLU	GXL-15FLU-R	GXL-15FLU-C5	GXL-15FLU-R-C5
	sensing	GXL-15FLUI	GXL-15FLUI-R	GXL-15FLUI-C5	GXL-15FLUI-R-C5
	nts	GXL-15FLUB	GXL-15FLUB-R	GXL-15FLUB-C5	GXL-15FLUB-R-C5
	Front	GXL-15FLUIB	GXL-15FLUIB-R	GXL-15FLUIB-C5	GXL-15FLUIB-R-C5
	ng	GXL-15HLU	GXL-15HLU-R	GXL-15HLU-C5	GXL-15HLU-R-C5
	sensing	GXL-15HLUI	GXL-15HLUI-R	GXL-15HLUI-C5	GXL-15HLUI-R-C5
	3 S6	GXL-15HLUB	GXL-15HLUB-R	GXL-15HLUB-C5	GXL-15HLUB-R-C5
	Тор	GXL-15HLUIB	GXL-15HLUIB-R	GXL-15HLUIB-C5	GXL-15HLUIB-R-C5

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FA COMPONENTS

MACHINE VISION SYSTEMS UV CURING SYSTEMS

Selection Guide Amplifier Built-in Amplifierseparated

GX-F/H

GX-M GX-U/GX-FU/ GX-N

FIBER SENSORS

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ORDER GUIDE

Accessories

OPTIONS

Designation

Sensor mounting

bracket

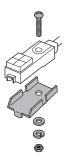
- MS-GXL8-4 (Sensor mounting bracket for GXL-8FU, GXL-8HU type)
- MS-A15F (Aluminum sheet for GXL-15FLU type)
- MS-A15H (Aluminum sheet for GXL-15HLU type)

Model No.

MS-GXL15

MS-GXL15-2

• MS-GXL8-4



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

Description

Mounting bracket for GXL-15 type

Mounting bracket for GXL-15F type

• MS-A15F • MS-A15H



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WIRE-SAVING SYSTEMS

MEASURE-MENT SENSORS

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FA COMPONENTS

MACHINE VISION SYSTEMS

Sensor mounting bracket

• MS-GXL15

• MS-GXL15-2



Screws are not supplied.

Screws are not supplied.

GX-F/H

GL

GX-M

GX-U/GX-FU/ GX-N GΧ

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CURTAINS / SAFETY COMPONENTS PRESSURE / FLOW SENSORS

PARTICULAR USE SENSORS SENSOR OPTIONS

SIMPLE WIRE-SAVING UNITS

SYSTEMS

MEASUREMENT
SENSORS

STATIC
ELECTRICITY
PREVENTION

LASER MARKERS

PLC

HUMAN MACHINE INTERFACES ENERGY CONSUMPTION VISUALIZATION COMPONENTS

MACHINE VISION SYSTEMS

CURING SYSTEMS

Selection Guide Amplifier Built-in Amplifier-

GX-F/H

GX-M GX-U/GX-FU/ GX-N

GΧ

SPECIFICATIONS

DC 2-wire type

			GXL-8 type		GXL-15 type				
	\	Туре			Standard		Long sensing range (For mounting on non-magnetic body) (Note 2)		
		Standard	Front sensing	Top sensing	Front sensing	Top sensing	Front sensing	Top sensing	
Item		Model No.	GXL-8FU	GXL-8HU	GXL-15FU	GXL-15HU	GXL-15FLU	GXL-15HLU	
Max.	operat	tion distance (Note 3)	2.5 mm 0.0	98 in ±20 %	5 mm 0.19	07 in ±10 %	8 mm 0.31	5 in ±10 %	
Stabl	le sens	sing range (Note 3)	0 to 1.8 mm	0 to 0.071 in	0 to 4 mm) to 0.157 in	0 to 6.4 mm	0 to 0.252 in	
Stand	dard se	ensing object	Iron sheet 15 × 15 × t 1 mm 0.591 × 0.591 × t 0.039 in			× 20 × t 1 mm 7 × t 0.039 in		× 30 × t 1 mm 1 × t 0.039 in	
Hyste	eresis			20 % or les	s of operation distan	ce (with standard sen	sing object)		
Repe	eatabili	ity		Along sensing a	xis, perpendicular to	sensing axis: 0.04 mn	n 0.002 in or less		
Supp	ly volt	age		12	to 24 V DC ±10 %	Ripple P-P 10 % or le	ess		
Curre	ent cor	nsumption (Note 4)			0.8 mA	or less			
Outp	ut		Non-contact DC 2-w • Load current: 3 te • Residual voltage				wire type 3 to 100 mA (Note 5) ge: 3 V or less (Note	6)	
	Utiliza	ation category			DC-12 (or DC-13			
	Short	-circuit protection			Incorp	orated			
Max.	respo	nse frequency	1 kHz						
Oper	ation i	ndicator	Normally closed type: Red LED (lights up when the output is ON)						
2-col	or indi	cator		Normally open	n type: Lights up in green under stable sensing condition Lights up in red under unstable sensing condition				
	Pollut	tion degree	3 (Industrial environment)						
a	Prote	ction			IP67 (IEC), IP67G (Note 7)				
Environmental resistance	Ambie	ent temperature		−25 to +70 °C	C –13 to +158 °F, Storage: –30 to +80 °C –22 to +176 °F				
resis	Ambie	ent humidity			45 to 85 % RH, Sto	rage: 35 to 95 % RH			
ıntal	EMC				EN 60	947-5-2			
nme	Volta	ge withstandability	1	,000 V AC for one mi	in. between all supply terminals connected together and enclosure				
nviro	Insula	ation resistance	50 MΩ, o	r more, with 250 V DO	C megger between al	supply terminals cor	nnected together and	enclosure	
Ш	Vibrat	tion resistance	10 t	o 55 Hz frequency, 1.	5 mm 0.059 in amplit	nm 0.059 in amplitude in X, Y and Z directions for two hours each			
	Shock	k resistance		1,000 m/s² accelerati	on (100 G approx.) ir	X, Y and Z directions	s for three times each		
Sens	_	Temperature characteristics	Over ambien	t temperature range -	-25 to +70 °C -13 to	+158 °F: Within ⁺¹⁵ %	of sensing range at +	·20 °C +68 °F	
range varia		Voltage characteristics		Within	±2 % for ±10 % fluct	uation of the supply v	/oltage		
Material			Enclosure:	PBT, Indicator part: I	Polyalylate	Enclosure: PET Indicator part: Polyalylate	Enclosure: PBT Indicator part: Polyalylate	Enclosure: PET Indicator part: Polyalylate	
Cable (Note 8)		e 8)	0.15 mm² 2-core of resistant cable, 1		0.2 mm² 2-core oil, heat and cold resistant cable, 1 m 3.281 ft long				
Cable	e exter	nsion		Extension up to to	otal 50 m 164.042 ft is	s possible with 0.3 mr	m², or more, cable.		
Weig	ht		Net weight:	12 g approx.		Net weight:	20 g approx.		
Acce	ssorie	S	MS-GXL8-4 (Sensor mounting	g bracket): 1 set			MS-A15F (Aluminum sheet): 1 pc.	MS-A15H (Aluminum sheet): 1 pc	

- 2) To mount the long sensing range type on a magnetic body, such as iron, the enclosed aluminum sheet, or any other aluminum sheet having a minimum size of 30 × 39.5 × t 0.3 mm 1.181 × 1.555 × t 0.012 in (**GXL-15HLU** type: 30 × 30 × t 0.3 mm 1.181 × 1.181 × t 0.012 in), should be inserted between the sensor and the magnetic body.
 - However, it is not necessary to use the aluminum sheet when mounting on a non-magnetic body, such as, aluminum or an insulator.
- 3) The maximum operation distance stands for the maximum distance for which the sensor can detect the standard sensing object.

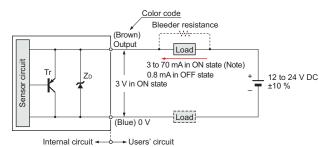
 The stable sensing range stands for the sensing range for which the sensor can stably detect the standard sensing object even if there is an ambient temperature drift and/or supply voltage fluctuation.
- 4) It is the leakage current when the output is in the OFF state.
- 5) The maximum load current varies with the ambient temperature. Refer to "I/O CIRCUIT AND WIRING DIAGRAMS (p.828)" for more details.
- 6) When the cable is extended, the residual voltage becomes larger according to the resistance of the cable. The residual voltage of 5 m 16.404 ft cable length type increases by +0.1 V.
- 7) If using the sensor in an environment where cutting oil droplets splatter, the sensor may be deteriorated due to added substances in the oil. Please check the resistivity of the sensor against the cutting oil you are using beforehand.
- 8) The flexible cable type (model No. with suffix "-R") has a 0.15 mm² (GXL-15 type: 0.2 mm²) flexible, oil, heat and cold resistant cabtyre cable, 1 m 3.281 ft long.

I/O CIRCUIT AND WIRING DIAGRAMS

DC 2-wire type

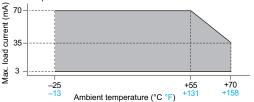
GXL-8 type

I/O circuit diagram



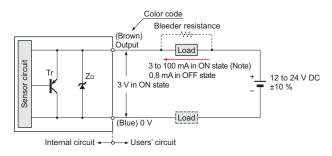
Symbols ... ZD: Surge absorption zener diode Tr: PNP output transistor

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



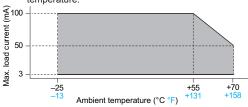
GXL-15 type

I/O circuit diagram

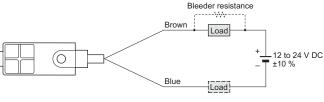


Symbols ... ZD: Surge absorption zener diode Tr: PNP output transistor

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



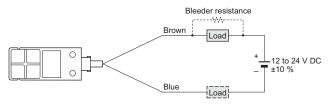
Wiring diagram



Conditions for the load

- 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.

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 100 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.

FIBER SENSORS

LASER SENSORS

PHOTO-ELECTRIC SENSORS MICRO PHOTO-ELECTRIC SENSORS

AREA SENSORS

> LIGHT CURTAINS / SAFETY COMPONENTS PRESSURE /

INDUCTIVE PROXIMITY SENSORS

FLOW SENSORS

PARTICULAR USE SENSORS

SENSOR OPTIONS

WIRE-SAVING UNITS

WIRE-SAVING SYSTEMS

MEASURE-MENT SENSORS

STATIC ELECTRICITY PREVENTION DEVICES

LASER MARKERS

PLC

HUMAN MACHINE INTERFACES ENERGY CONSUMPTION VISUALIZATION

FA COMPONENTS

> MACHINE VISION SYSTEMS

UV CURING SYSTEMS

Selection Guide Amplifier Built-in

GX-F/H

GXL

GL GX-M

GX-U/GX-FU/ GX-N SENSING CHARACTERISTICS (TYPICAL)

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PHOTO-ELECTRIC SENSORS

AREA SENSORS

> LIGHT CURTAINS / SAFETY

COMPONENTS

PRESSURE /

FLOW SENSORS

PARTICULAR

SENSORS

SENSOR OPTIONS

SIMPLE WIRE-SAVING UNITS

MEASURE-MENT SENSORS

STATIC ELECTRICITY PREVENTION

LASER MARKERS

DEVICES

PLC

HUMAN

FA COMPONENTS

MACHINE VISION SYSTEMS

CURING SYSTEMS

GX-F/H

GL

GX-N

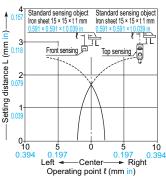
GX

GX-M

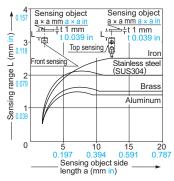
GX-U/GX-FU/

GXL-8 type

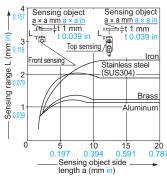
Sensing field (common)



Correlation between sensing object size and sensing range (DC 2-wire type)



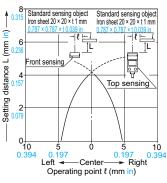
Correlation between sensing object size and sensing range (NPN output type)



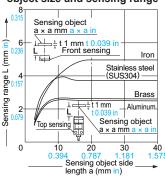
As the sensing object size becomes smaller than the standard size (iron sheet $15 \times 15 \times t\ 1\ \text{mm}\ 0.591 \times 0.591 \times t\ 0.039$ in), the sensing range shortens as shown in the left figures.

GXL-15 (Standard) type

Sensing field



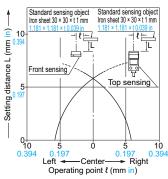
Correlation between sensing object size and sensing range



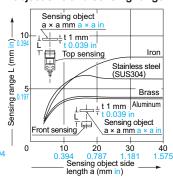
As the sensing object size becomes smaller than the standard size (iron sheet $20 \times 20 \times t$ 1 mm $0.787 \times 0.787 \times t$ 0.039 in), the sensing range shortens as shown in the left figure.

GXL-15 (Long sensing range) type

Sensing field



Correlation between sensing object size and sensing range



As the sensing object size becomes smaller than the standard size (iron sheet $30 \times 30 \times t$ 1 mm $1.181 \times 1.181 \times t$ 0.039 in), the sensing range shortens as shown in the left figure.

PRECAUTIONS FOR PROPER USE

Refer to p.1485~ for general precautions.



 Never use this product as a sensing device for personnel protection.

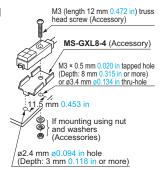
 In case of using sensing devices for personnel protection, use products which meet laws and standards, such as OSHA, ANSI or IEC etc., for personnel protection applicable in each region or country.

Mounting

GXL-8 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 Ø3.4 mm Ø0.134 in. With the attached mounting screw and nut, take care that the thickness of the mounting plate should be 2.3 mm 0.091 in or less.
- If a screw other than the attached screw is used, make sure to use a M3 truss head screw.

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



GXL-15 type

- \bullet The tightening torque should be 1 N·m or less.
- To mount the sensor with the optional sensor mounting bracket MS-GXL15, the thru-hole diameter should be ø3.4 mm ø0.134 in.
- Screw, nut or washers are not supplied.
 Please arrange them separately.
- To mount the long sensing range type on a magnetic body, such as iron, the enclosed aluminum sheet, or any other aluminum sheet having a minimum size of 30 × 39.5 × t 0.3 mm 1.181 × 1.555 × t 0.012 in (GXL-15HLU type: 30 × 30 × t 0.3 mm 1.181 × 1.181 × t 0.012 in), should be inserted between the sensor and the magnetic body. However, it is not necessary to use the aluminum sheet when mounting on a nonmagnetic body, such as, aluminum or an insulator.
- When mounting the inductive proximity sensor with the optional sensor mounting bracket MS-GXL15-2, if the bracket is mounted close to the sensing part, the bracket itself gets sensed and the operation becomes unstable. Make sure to mount such that the mounting holes of the sensor and

M3 pan head screw or truss head screw

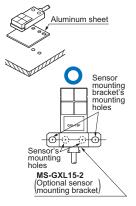
(Do not use a flat head screw)

(M3 × 0.5 mm 0.020 in tapped hole or 0.3.4 mm 0.134 in thru-hole

9 mm

(If mounting using nut and washers.

When mounting using MS-GXL15 (Optional)



those of the mounting bracket are in one horizontal straight line.

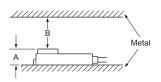
PRECAUTIONS FOR PROPER USE

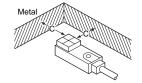
Refer to p.1485~ for general precautions.

Influence of surrounding metal

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

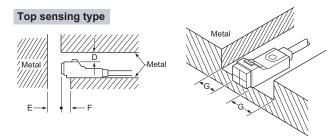
Front sensing type





	GXL-8F type	GXL-15FU type	GXL-15FLU type
Α	7 mm 0.276 in	8 mm 0.315 in	8 mm 0.315 in (Note)
В	8 mm 0.315 in	20 mm 0.787 in	30 mm 1.181 in
С	3 mm 0.118 in	7 mm 0.276 in	10 mm 0.394 in

Note: The GXL-15FLU type should be mounted on an insulator or a non-magnetic body. To mount it on a magnetic body, such as iron, use the enclosed aluminum sheet.



		GXL-8H type	GXL-15HU type	GXL-15HLU type
	D	4 mm 0.157 in	6 mm 0.236 in	12 mm 0.472 in
E F	Е	10 mm 0.394 in	20 mm 0.787 in	30 mm 1.181 in
	F	3 mm 0.118 in	0 mm 0 in	10 mm 0.394 in (Note)
	G	3 mm 0.118 in	3 mm 0.118 in	10 mm 0.394 in

Note: When GXL-15HLU type is mounted on an insulator or a non-magnetic body, or seated on the enclosed aluminum sheet, the distance "F" can be zero.

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.

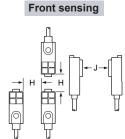
		Н	J
GXL-8	Between "I" type and non "I" type	0 mm (Note 2)	15 mm 0.591 in
type	Between two "I" types or two non "I" types	18 mm 0.709 in	30 mm 1.181 in
GXL-15FU GXL-15HU	Between "I" type and non "I" type	0 mm (Note 2)	25 mm 0.984 in
type	Between two "I" types or two non "I" types	30 mm 1.181 in	60 mm 2.362 in
GXL-15FLU GXL-15HLU	Between "I" type and non "I" type	0 mm (Note 2)	25 mm 0.984 in
type	Between two "I" types or two non "I" types	75 mm 2.953 in	90 mm 3.543 in

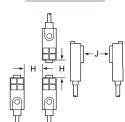
Notes: 1) "I" in the model No. specifies the different frequency type.

2) Close mounting is possible for up to two sensors.

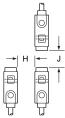
When mounting three sensors or more at an equal spacing, align the model with "I" and the model without "I" alternately.

The minimum value of dimension "H" should be as given below. GXL-8 type: 5 mm 0.1975 in. GXL-15FU/15HU type: 7.5 mm 0.295 in, GXL-15FLU/15HLU type: 30 mm 1.181 in





Top sensing



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.

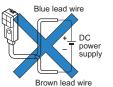
Correction coefficient

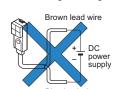
Model No.	GXL-8 type	GXL-15FU type	GXL-15HU GXL-15FLU GXL-15HLU type
Iron	1	1	1
Stainless steel (SUS304)	0.82 approx.	0.74 approx.	0.75 approx.
Brass	0.59 approx.	0.53 approx.	0.53 approx.
Aluminum	0.57 approx.	0.52 approx.	0.51 approx.

Others

• Do not use during the initial transient time (50 ms) after the power supply is switched on.

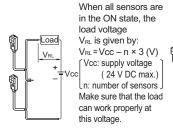
• The sensor must be connected to a power supply via a load. If the sensor is connected to a power supply without a load, the short-circuit protection makes the sensor inoperable. (The output stays in the OFF state and the indicator does not light up.) In this case, rectify by connecting the power supply via a load. Now, the sensor becomes operable. Further, take care that if the power supply is connected with reverse polarity without a load, the sensor will get damaged.



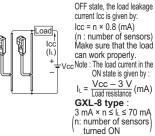


• For series connection (AND circuit) or parallel connection (OR circuit) of sensors, take care of the following.

Series connection (AND circuit) Parallel connection (OR circuit)



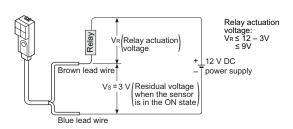
Note: The output is generated normally even if the indicator does not light up properly.



GXL-15 type: 3 mA × n ≤ l_L ≤ 100 mA n: number of sensors

When all sensors are in the

• The residual voltage of the sensor is 3 V. Before connecting a relay at the load, take care of its actuation voltage. (Some 12 V relays may not be usable.)



FIBER SENSORS

LASER SENSORS

PHOTO-ELECTRIC SENSORS MICRO PHOTO-ELECTRIC SENSORS

AREA SENSORS

COMPONENTS PRESSURE FLOW SENSORS

PARTICULAR USE SENSORS

SENSOR OPTIONS

WIRE-SAVING SYSTEMS

MEASURE-MENT SENSORS

DEVICES LASER MARKERS

PLC

HUMAN MACHINE INTERFACES

FA COMPONENTS

MACHINE VISION SYSTEMS

GX-F/H

GL

GX-M GX-U/GX-FU/

FIBER SENSORS

LASER SENSORS

PHOTO-ELECTRIC SENSORS MICRO PHOTO-ELECTRIC SENSORS AREA SENSORS

LIGHT CURTAINS / SAFETY COMPONENTS PRESSURE / FLOW SENSORS

PARTICULAR USE SENSORS SENSOR OPTIONS

SIMPLE WIRE-SAVING UNITS WIRE-SAVING SYSTEMS MEASURE-MENT SENSORS

STATIC ELECTRICITY PREVENTION DEVICES LASER MARKERS

PLC

HUMAN
MACHINE
INTERFACES
ENERGY
CONSUMPTION
VISUALIZATION
COMPONENTS
FA
COMPONENTS

MACHINE VISION SYSTEMS UV CURING SYSTEMS

Selection Guide Amplifier Built-in

GX-F/H

GL GX-M GX-U/GX-FU/ GX-N

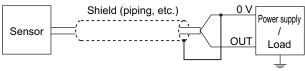
PRECAUTIONS FOR PROPER USE

Refer to p.1485~ for general precautions.

Use conditions to comply with CE Marking

 Following work must be done in case of using this product as a CE Marking (European standard EMC Directive)conforming product.

Ensure that the shield is connected to 0 V.

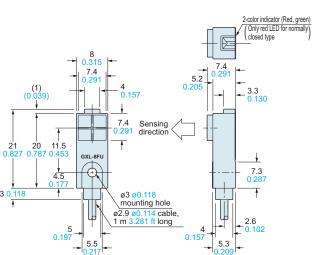


Note: The shield (piping, etc.) must be insulated.

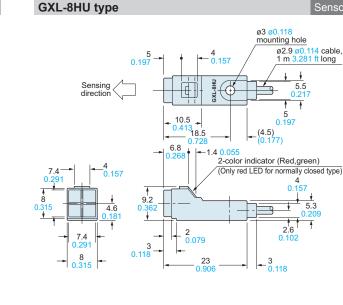
DIMENSIONS (Unit: mm in)

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

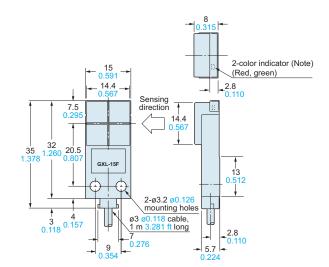
GXL-8FU type Sensor



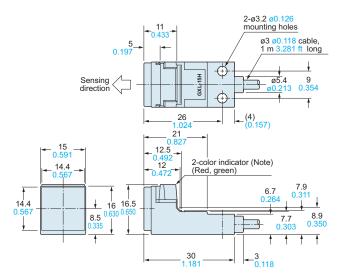
GXL-15F type Sensor



GXL-15H type Sensor



Note: Normally closed type have an operation indicator (red) instead of the 2-color indicator.



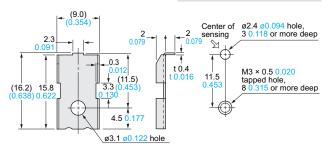
Note: Normally closed type have an operation indicator (red) instead of the 2-color indicator.

DIMENSIONS (Unit: mm in)

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

MS-GXL8-4 Sensor mounting bracket for GXL-8FU / GXL-8HU type (Accessory)

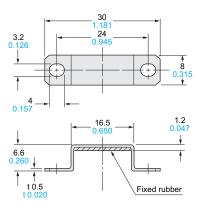
Mounting hole dimensions



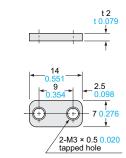
Material: Stainless steel (SUS304)

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

MS-GXL15-2 Sensor mounting bracket for **GXL-15F** type (Optional)



Material: Bracket ... Stainless steel (SUS304) Fixed rubber ... FKM (Fluorine rubber) MS-GXL15 Sensor mounting bracket for GXL-15 type (Optional)

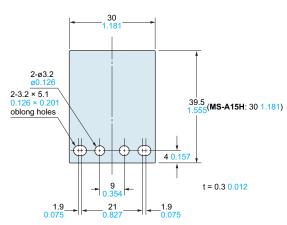


Material: Cold rolled carbon steel (SPCC)

MS-A15F MS-A15H

Aluminum sheet

(Accessory for $\mathbf{GXL}\text{-}\mathbf{15FLU}$ / $\mathbf{GXL}\text{-}\mathbf{15HLU}$ type)



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Selection Guide

Amplifier Built-in Amplifierseparated

GX-F/H

GL

GX-M GX-U/GX-FU/ GX-N