LASER SENSORS

PHOTOELECTRIC SENSORS

PHOTOELECTRIC SENSORS AREA SENSORS SAFETY LIGHT CURTAINS / SAFETY COMPONENTS PRESSURE / FLOW SENSORS

PARTICULAR USE SENSORS SENSOR OPTIONS SIMPLE WIRE-SAVING UNITS WIRE-SAVING SYSTEMS MEASUREMENT SENSORS

> STATIC CONTROL DEVICES

LASER MARKERS

HUMAN MACHINE INTERFACES

FA COMPONENTS

MACHINE VISION SYSTEMS

UV CURING SYSTEMS

Selection Guide

Amplifier Built-in

Other

Products

GX-F/H

GXL

GL

GX-M

GX

GX-U/GX-FU/ GX-N

Amplifierseparated

PLC

ENERGY MANAGEMENT

MICRO

Cylindrical Compact Inductive Proximity Sensor Amplifier Built-in SERIES



Robust enclosure and bending-resistant cable types are also available

GX-3S□

VARIETIES

Miniature

GX-3S is an amplifier built-in inductive proximity sensor having a diameter of just ø3.8 mm ø0.150 in.



BASIC PERFORMANCE

Long sensing range

GX-8ML□ The non-shielded type (GX-8ML) has twice the sensing

range of the shielded type (GX-8M), although having the same size. Hence, it allows margin against sensing distance variations.



Robust housing

GX-4S□

The **GX-4S** uses a robust stainless steel enclosure. The tightening torque can be 0.58 N m or less. (2 times compared with conventional models)



ENVIRONMENTAL RESISTANCE

Ten times greater bending durability (Compared with conventional models)

GX-□-R

The bending durability of the cable to repeated bending has been increased tenfold by using special alloy cores for the cable.



GX-M

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



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.

LASER SENSORS

PHOTO-ELECTRIC SENSORS

ORDER GUIDE

Bending-resistant cable type

Bending-resistant cable type is also available for shielded type. When ordering this type, suffix "-**R**" to the model No. (e.g.) Bending-resistant cable type of **GX-3S** is "**GX-3S-R**".

5 m 16.404 ft cable length type

5 m 16.404 ft cable length type (standard: 3 m 9.843 ft) is also available. (excluding **GX-4SB**) When ordering this type, suffix "**-C5**" to the model No. (e.g.) 5 m 16.404 ft cable length type of **GX-3S** is "**GX-3S-C5**".

Refer to table below for 5 m 16.404 ft cable length type of bending-resistant cable type sensor.

Table of model Nos.

	Standard	Bending-resistant cable of 5 m 16.404 ft cable length type
	GX-3S	GX-3S-R-C5
type	GX-3SB	GX-3SB-R-C5
aded	GX-4S	GX-4S-R-C5
threa	GX-4SB	
Non	GX-5S	GX-5S-R-C5
_	GX-5SB	
be	GX-5M	GX-5M-R-C5
	GX-5MB	
reade	GX-8M	GX-8M-R-C5
μ̈́Τ	GX-8MB	GX-8MB-R-C5
	Threaded type Non-threaded type	edfit pepper end of the second

Accessories

- MS-SS3 (Sensor mounting bracket for GX-3S type)
- MS-SS3-2 (C bracket for GX-3S type)
- MS-SS5 (Sensor mounting bracket for GX-5S type)



• MS-SS3-2

К

By using the C bracket, the applicable tightening force can be doubled.



GX-F/H
GXL
GL
GX-M
GX-U/GX-FU/ GX-N
GX

MICRO PHOTO-ELECTRIC SENSORS AREA SENSORS SAFETYLIGHT CURTAINS/ SAFETY COMPONENTS PRESSURE/ FLOW SENSORS

PARTICULAR USE SENSORS

SENSOR OPTIONS

SIMPLE WIRE-SAVING UNITS

WIRESAVING SYSTEMS MEASURE-MENT SENSORS STATIC CONTROL CONTROL DEVICES LASER MARKERS PLC HUMAN

MACHINE

ENERGY MANAGEMENT SOLUTIONS

FA COMPONENTS MACHINE VISION SYSTEMS

UV

CURING SYSTEMS

SPECIFICATIONS

Non-threaded type

/		Туре						_		Shield	ed type	e						
	\diagdown	туре			Bend	ling-resi	stant cable	e			Bending	g-resis	ant cable				Bending-	resistant cable
ltem		Model No.	GX-3S	GX-3S	B GX-	3S-R	GX-3SB-F	R GX-4	S G	X-4SB	GX-4S	S-R G	X-4SB-R	GX-55	GX-5	SB	GX-5S-	R GX-5SB-R
CE ma	arking direc	tive compliance						E	MC Di	rective,	RoHS I	Direct	ive					
/lax. o	peration d	istance (Note 2)				0.	.8 mm <mark>0.0</mark>	031 in ±1	5 %		-				1 mm	0.03	9 in ±15	%
Stable	e sensing i	ange (Note 2)				0 t	o 0.6 mm	n 0 to 0.02	24 in						0 to 0.8	mm	0 to 0.03	1 in
Standa	ard sensir	ig object		Irc	on shee	t 5 × 5	×t1mm	n 0.197 ×	0.197	× t 0.0	39 in			Iron sheet	t 6 × 6 × t 1	l mm	0.236 × 0.2	236 × t 0.039 in
lyster	resis					1	5 % or le	ess of ope	eratior	n distan	ce (with	stand	lard sens	ing obje	ct)			
Repea	atability					20) µm <mark>0.78</mark>	87 mil or l	less						8 µm (.315	5 mil or le	SS
Supply	y voltage				12 to 2	4 V DC	¢±10 %	Ripple P	P-P 10	% or le	ess			10 to 30	0 V DC	Rip	ple P-P 1	0 % or less
Currer	nt consum	ption								15 mA	or less							
				NPN ope	an-colle	etor tr	aneietor										transistor	o mA (Note 3)
				• Max	kimum	sink cu	rrent: 50		oh	n o. 4-	1 or - 1 O	10				tage	: 30 V D0	
Dutpu	t							or less (b less (at 5				V)		• Re	sidual vo	oltag (at	e: 1.5 V o 200 mA	or less sink current
																	1 V or les 50 mA s	s ink current)
L	Utilization of	category		1				1			or DC-1							
C	Dutput ope	eration	Normally open	Normall closed	y Nori ope		Normally closed	/ Normal open	-	ormally osed	Norma open	-	lormally losed	Normall open	y Norm close		Normall open	y Normally closed
S	Short-circu	it protection													In	corp	orated	
/lax. r	response f	requency					1	kHz								1.5	kHz	
Opera	tion indica	ator						Red LEI	D (ligh	nts up w	hen the	e outp	ut is ON)					
P	Pollution de	egree							3 (Inc	dustrial	environ	ment)						
g F	Protection									IP67	(IEC)							
v sistar	Ambient te	mperature				-25	5 to +70 °	°C –13 to	+158	°F, Sto	rage: -2	25 to -	-80 °C –	13 to +17	′6 °F			
A le	Ambient hu	umidity			35	to 95 %	6 RH, Sto	orage: 35	to 95	% RH				35 to 8	5 % RH,	Sto	rage: 35 f	to 95 % RH
	oltage wit	hstandability						n. betwee										
Environmental resistance	nsulation r	resistance	5 MΩ, togethe	or more, er and en	with 25 closure	UVDC 9	; megger	r between	n all su	ipply te	rminals	conne	ected					ger between all and enclosure
V ED	/ibration re	esistance		10 to	55 Hz	freque	ncy, 1.5 r	mm 0.059	in do	uble an	nplitude	in X,	Y and Z	direction	s for two	hou	rs each	
s	Shock resi	stance	200 n	n/s ² accel	eration	(20 G	approx.)	in X, Y a	nd Z c	lirectior	ns ten tir	mes e	ach				on (30 G ns ten tim	approx.) in les each
Sensir ange	^{ng} chara	perature acteristics		nbient ter range at				o +70 °C -	–13 to	+158 °	F: Withi	in ±20	% of					+70 °C –13 to at +20 °C +68 °F
/ariati	on Volta	ge acteristics		With	nin ±2 9	% for ±	10 % fluc	ctuation of	f the s	upply v	oltage			the su	pply volt	age		ctuation of
Materi	ial							I (SUS304	<i>,,</i>		1				closure: l sin part:		s (Nickel	plated)
Cable			0.08 mm ² 3-0 and cold resi cable, 3 m 9	istant cabty	re and h	eat resist			resistar	nt cabtyre		resista	nt cabtyre	and cold re		btyre		-core bending, oil sistant cabtyre 9.843 ft long
Cable	extension	1			E	xtensio	on up to t	otal 100 r	m 328	.084 ft i	s possit	ble wi	th 0.3 mr	n², or mo	re, cable			
Weigh	it					Ne	et weight:	: 30 g app	prox.						Net weig	ght:	55 g app	rox.
Acces	sories		MS-SS3 (MS-SS3-2				et): 1 pc.							MS-SS	6 (Senso	r mo	unting br	acket): 1 pc.
								ly, the cor										

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) The maximum sink current varies depending on the ambient temperature. Refer to "I/O CIRCUIT AND WIRING DIAGRAMS (p.846)" for details.

FIBER SENSORS

LASER SENSORS

GX

LASER SENSORS

SPECIFICATIONS

Threaded type

	_	caucu											
PHOTO- ELECTRIC SENSORS			Туре				Shielde	ed type				Non-shie	lded type
MICRO		$\langle \rangle$	Турс			Bending-res	istant cable			Bending-res	istant cable		
PHOTO- ELECTRIC SENSORS	Iten	<u>n</u>	Model No.	GX-5M	GX-5MB	GX-5M-R	GX-5MB-R	GX-8M	GX-8MB	GX-8M-R	GX-8MB-R	GX-8ML	GX-8MLB
AREA SENSORS	CE r	marking c	lirective compliance					EMC	Directive,	RoHS Dire	ctive		
SAFETY LIGHT CURTAINS / SAFETY	Max	. operatio	on distance (Note 2)	().8 mm 0.0	31 in ±15 %	6		1 mm 0.03	<mark>9 in</mark> ±15 %		2 mm 0.07	9 in ±15 %
COMPONENTS	Stat	ole sensi	ng range (Note 2)	0	to 0.6 mm	0 to 0.024	in	0	to 0.8 mm	0 to 0.031	in	0 to 1.6 mm	0 to 0.063 in
PRESSURE / FLOW SENSORS	Star	ndard se	nsing object	Iron sheet 5	× 5 × t 1 mm	0.197 × 0.197	' × t 0.039 in	Iron sheet 8	× 8 × t 1 mm	0.315 × 0.315	× t 0.039 in	Iron sheet 12 × 12 × t 1 mr	n 0.472 × 0.472 × t 0.039
INDUCTIVE PROXIMITY SENSORS	Hys	teresis				peration dis			10 % or les	ss of opera	tion distand	ce (with standard sens	sing object)
PARTICULAR	Rep	eatability	1	2	20 µm <mark>0.78</mark>	7 mil or les	S		8 µm <mark>0.315</mark>	mil or less	;	40 µm 1.57	5 mil or less
USE SENSORS	Sup	ply volta	ge	12 to 24 V	DC ±10 %	Ripple P-P 1	0 % or less			10 to 30 \	/ DC Rip	ple P-P 10 % or less	
SENSOR OPTIONS	Curr	rent cons	sumption						15 mA	or less			
SIMPLE WIRE-SAVING UNITS WIRE-SAVING SYSTEMS MEASURE-	Out	out		• Ma • Ap	ximum sinl plied voltag (betwo sidual volta	or transistor k current: 5 ge: 30 V DC een output age: 0.4 V c 50 mA sink	0 mA C or less and 0V) or less		 Applie 	num sink c ed voltage:	urrent: 200 30 V DC o : 1.5 V or l	mA (Note 3) r less (between outpu ess (at 200 mA sink c ess (at 50 mA sink cu	urrent)
MENT SENSORS		Utilizati	on category						DC-12 c	or DC-13			
STATIC CONTROL DEVICES		Output	operation	Normally open	Normally closed	Normally open	Normally closed	Normally open	Normally closed	Normally open	Normally closed	Normally open	Normally closed
LASER IARKERS		Short-c	ircuit protection		·				1		Incorp	orated	
PLC	Max	. respon	se frequency				1 k	Hz				500	Hz
	Ope	ration in	dicator					Red LED (lights up w	hen the ou	tput is ON)		
HUMAN MACHINE ITERFACES		Pollutio	n degree					3	(Industrial	environmer	nt)		
ENERGY		Protect	on						IP67	(IEC)			
SOLUTIONS	ance	Ambien	t temperature			- 2	5 to +70 °C	C −13 to +1	58 °F, Stor	age: – 25 t	o +80 °C –	13 to +176 °F	
FA DMPONENTS	esist	Ambien	t humidity	35 to 95	% RH, Stor	rage: 35 to	95 % RH			35 to 85	% RH, Stor	age: 35 to 95 % RH	
IACHINE VISION YSTEMS	ntal r	Voltage	withstandability			500 V AC f	or one min	. between	all supply t	erminals co	onnected to	gether and enclosure	
UV CURING YSTEMS	Environmental resistance	Insulati	on resistance	5 MΩ, or mo supply termi	ore, with 250 \ inals connecte	/ DC megger ed together an	between all d enclosure		or more, w er and enclo		C megger	between all supply te	rminals connected
YSTEMS	Env	Vibratio	n resistance		10 to 5	5 Hz freque	ency, 1.5 m	ım 0.059 in	double an	plitude in)	K, Y and Z	directions for two hou	rs each
		Shock r	esistance			n (20 G app s ten times			acceleration Z directions			300 m/s ² acceleratio X, Y and Z directions	
Selection Guide	Sen rang	sing cl	emperature naracteristics			ange – 25 to +7 nsing range at -			Over amb Within ⁺¹⁵ –10	ient temper % of sens	rature rang ing range a	e –25 to +70 °C –13 t at +20 °C +68 °F	o +158 °F:
Amplifier Built-in Amplifier- separated		ation V	oltage naracteristics	Within ±2 supply ve		% fluctuat	ion of the		Within	±2.5 % for	±15 % fluc	tuation of the supply	voltage
Other Products	Mat	erial			osure: Bras n part: TPX	s (Nickel pl	ated)				sure: Bras part: ABS	s (Nickel plated)	
GX-F/H GXL	Cab	le		0.08 mm ² 3-0 and cold resi cable, 3 m 9	stant cabtyre	0.1 mm ² 3-cor and heat resis cable, 3 m 9.8	tant cabtyre	0.14 mm ² 3-0 and cold resi cable, 3 m 9	istant cabtyre	0.15 mm ² 3-co and heat resis cable, 3 m 9.8	ant cabtyre	0.14 mm ² 3-core, oil resistant cabtyre cab	
GL	Cab	le extens	sion	Extens	ion up to to	otal 100 m 3	328.084 ft i	s possible	with 0.3 mr	n², or more	, cable.	Extension up to tota possible with 0.14 m	
GX-M X-U/GX-FU/	Wei	ght (Note	e 4)	N	let weight:	30 g appro	x.			N	et weight:	60 g approx.	
GX-N GX	Acc	essories		Nut: 2 pcs Toothed lock		Nut: 2 pcs		Nut: 2 pcs Toothed lock		Nut: 2 pcs		Nut: 2 pcs. Toothed lock	washer: 1 pa

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) The maximum sink current varies depending on the ambient temperature. Refer to "I/O CIRCUIT AND WIRING DIAGRAMS (p.846)" for details.

4) The given weight of the threaded type includes the weight of nuts and toothed lock washers.

I/O CIRCUIT AND WIRING DIAGRAMS

GX-5SD GX-8MD GX-8MLD

I/O circuit diagram



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

• If a capacitor of 1 μ F or more is connected between 0 V and output or between +V and output, connect a 100 Ω resistor in series as shown below.



Without the resistor, the shortcircuit protection is activated by the charge or discharge current of the capacitor, so that it results in delaying the response whenever the sensor switches. The connected resistor solves this problem.





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



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PHOTO-ELECTRIC SENSORS MICRO PHOTO-ELECTRIC SENSORS AREA SENSORS SAFETY LIGHT CURTAINS / SAFETY COMPONENTS PRESSURE / FLOW SENSORS PARTICULAR USE SENSORS SENSOR OPTIONS SIMPLE WIRE-SAVING UNITS WIRE-SAVING SYSTEMS MEASURE-MENT SENSORS STATIC CONTROL DEVICES LASER MARKERS PLC HUMAN MACHINE INTERFACES ENERGY MANAGEMENT SOLUTIONS FA COMPONENTS MACHINE VISION SYSTEMS UV CURING SYSTEMS

GX-3SD GX-4SD GX-5MD

I/O circuit diagram



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

Wiring diagram



Selection Guide
Amplifier Built-in
Amplifier- separated
Other Products

GX-F/H GXL GL GX-M GX-UIGX-FU/ GX-N GX

LASER SENSORS

SIMPLE WIRE-SAVING UNITS

SENSING CHARACTERISTICS (TYPICAL)

GX-3SD GX-4SD GX-5MD

Correlation between sensing object size and sensing range

Iron sheet a × a mm a × a ii → t 1 mm

Ô

10 0.394

Sensing object side length a (mm in)

5 0.197

2

0

5 0.197

| <u>=</u>

Sensing range L (mm

t 0.039 in

15 0.591

Iron sheet

0

10

0.394

Sensing object side length a (mm in)

 $a \times a \text{ mm } a \times a$ $a \times a \text{ mm } a \times a$ $a \times b \times a$ t 1 mm t 0.039 in

15 0.591

×aiı



Sensing field



As the sensing object size becomes smaller than the standard size (iron sheet 5 × 5 × t 1 mm 0.197 × 0.197 × t 0.039 in), the sensing range shortens as shown in the left figure.

GX-5SD

Sensing field



Correlation between sensing object size and sensing range

20 0.787

As the sensing object size becomes smaller than the standard size (iron sheet 6 × 6 × t 1 mm $0.236 \times 0.236 \times t \ 0.039$ in), the sensing range shortens as shown in the left figure.

GX-8MD

FA COMPONENTS Sensing field



Correlation between sensing object size and sensing range

20

0.787

2 Sensing range L (mm in)-Iron sheet a×amm<u>a×ai</u> -≧∔t1mm t 0.039 in 0 20 0.787 0 5 0.197 10 0.394 15 0.591 Sensing object side length a (mm in)

As the sensing object size becomes smaller than the standard size (iron sheet 8 × 8 × t 1 mm $0.315 \times 0.315 \times t \ 0.039$ in), the sensing range shortens as shown in the left figure.

GXL Sensing field

GX-F/H

Correlation between sensing object size and sensing range

40 1.575



0.157

As the sensing object size becomes smaller than the standard size (iron sheet 12 × 12 × t 1 mm $0.472 \times 0.472 \times t \ 0.039$ in), the sensing range shortens as shown in the left figure.

LASER SENSORS

PHOTO-ELECTRIC SENSORS

MICRO PHOTO-ELECTRI SENSOR

AREA SENSORS

SAFETY LIGHT CURTAINS / SAFETY COMPONENTS

PRESSURE FLOW SENSORS

PARTICULAR USE SENSORS

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MEASURE

MENT SENSORS STATIC CONTROL DEVICES

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ENERGY MANAGEMENT SOLUTIONS

FA COMPONENTS MACHINE VISION SYSTEMS UV CURING SYSTEMS

PRECAUTIONS FOR PROPER USE

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

• The tightening torque should be as given below.

Mounting with set screw

<Shielded of threaded type>

• Tighten the set screw on the flat surface of the sensor without applying excessive force. Make sure to use a set screw with a cup-point end.



Note: To fasten $\mathbf{GX-5M}$, use a M3 or less set screw.

Model No.	Set screw tightening position A (mm in)	Tightening torque
GX-5M□	5 to 10 0.197 to 0.394	0.29 N∙m
GX-8M□	8 to 22 0.315 to 0.866	0.29 N·m

<Non-threaded type and non-shielded of threaded type>

B-B-(M4 or less)	N	lodel No.	B (mm in)	C (mm in)	Tightening torque
	G	X-3S□	5 to 10	3	0.29 N·m
-c+///////		When using the C bracket	0.197 to 0.394	0.118	0.58 N∙m
	G	X-4S□	5 to 10 0.197 to 0.394	3 0.118	0.58 N∙m
	G	X-5S□	8 to 20 0.315 to 0.787	5 0.197	0.29 N∙m
	G	X-8ML□	13 to 22 0.517 to 0.866	10 0.394	0.29 N∙m

Note: The protrusion should be kept C (mm in) or more to avoid reduction of sensing range.

 To fasten GX-3S
 and GX-4S
 , use a M3 or less set screw and tighten it from a direction perpendicular to the operation indicator.



• When using the C bracket, place it on the sensor at a distance of 3 mm 0.118 in or more from the sensor end.



• To fasten the non-shielded threaded type, tighten the set screw on the flat surface of the sensor.

Mounting with nut

• Note that the maximum tightening torque differs according to the location of the nuts.

Shielded of threaded type> <Non-shielded of threaded type>





Refer to p.1579~ for general precautions.

(2 pcs. attached for "-**R**" type only)

Model No.	D (mm in)	Tightening torque
GX-5M□	2 to 3 0.079 to 0.118	0.49 N∙m
GX-5IVID	3 0.118 or more	1.47 N·m
GX-8M□	3 to 11 0.118 to 0.433	1.47 N·m
	11 0.433 or more	3.43 N∙m
GX-8ML□	9 to 11 0.345 to 0.433	0.98 N∙m
	11 0.433 or more	3.43 N∙m

Note: Mount such that the nuts do not protrude from the threaded portion.

• The root truncation of the threads with **GX-8M**_□ and **GX-8ML**_□ is shallow owing to strengthening of the sensors against tightening.

When tapped hole on equipment to fix the sensors, the prepared hole must be 0.283 in or more.



Selection Guide
Amplifier Built-in
Amplifier- separated
Other

TTOUUCIS
GX-F/H
GXL
GL

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

Selection Guide

Amplifier Built-in Amplifierseparated

Other Products

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

PRECAUTIONS FOR PROPER USE

Distance from surrounding metal

• As metal around the sensor may affect the sensing performance, pay attention to the following points.

Influence of surrounding metal

• The surrounding metal will affect the sensing performance. Keep the minimum distance specified in the table below.

Hadkground metal

Model No.	E (mm in)
GX-3S□	3 0.118
GX-4S□	3 0.118
GX-5S□	4 0.157
GX-5M□	3 0.118
GX-8M□	4 0.157
GX-8ML□	8 0.315

Embedding of the sensor in metal

 Sensing range may decrease if the sensor is completely embedded in metal. Especially for the non-threaded type and the non-shielded type, keep the minimum distance specified in the table below.



Model No.	F (mm in)	G (mm in)
GX-3S□	ø12 ø0.472	3 0.118
GX-4S□	ø12 ø0.472	3 0.118
GX-5S□	ø15.4 ø0.606	5 0.197
GX-8ML□	ø30 ø1.181	10 0.394

Mutual interference

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

Face to face mounting

Parallel mounting



Model No.	H (mm in)	J (mm in)
GX-3S□	16 0.630	16 0.630
GX-4S□	16 0.630	16 0. <u>63</u> 0
GX-5S□	20 0.787	15 0.591
GX-5M□	10 0.394	10 0.394
GX-8M□	20 0.787	15 <mark>0.591</mark>
GX-8ML	50 1.969	30 1.181

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. Metal	GX-3S□ GX-4S□	GX-5M□	GX-5S□ GX-8M□ GX-8ML□
Iron	1	1	1
Stainless steel (SUS304)	0.65 approx.	0.83 approx.	0.7 approx.
Brass	0.36 approx.	0.61 approx.	0.4 approx.
Aluminum	0.30 approx.	0.58 approx.	0.35 approx.

Others

- Do not use during the initial transient time (10 ms) after the power supply is switched on.
- Make sure that stress by forcible bend or pulling is not applied directly to the sensor cable joint.
- GX-3S□, GX-4S□ and GX-5M□ do not incorporate a short-circuit protection circuit at the output. Do not connect them directly to a power supply or a capacitive load.

LASER SENSORS

PHOTO-ELECTRIC SENSORS

MICRO PHOTO-ELECTRIC SENSORS

AREA SENSORS

SAFETY LIGHT CURTAINS / SAFETY COMPONENTS

PRESSURE / FLOW SENSORS

PARTICULAR USE SENSORS

SENSOR OPTIONS

SIMPLE WIRE-SAVING UNITS

WIRE-SAVING SYSTEMS

MEASURE-MENT SENSORS

STATIC CONTROL DEVICES

LASER MARKERS









The CAD data can be downloaded from our website.



 GX-8M⊡
 Sensor

 GX-8M⊡
 30
 318

 1.181
 0.118
 Tothed lock washer (Internally toothed)

 0.472
 0.118
 0.118

 0.118
 0.118
 0.138

 0.118
 0.118
 0.130

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 0.118
 0.118

 0.236
 0.197
 0.197

 0.291
 Flat part
 M8 × 1 0.039 thread



Note: By using the C bracket, the applicable tightening force can be doubled.

GX-8ML□



MS-SS3 MS-SS5 Sensor mounting bracket for GX-3S□ (Accessory for GX-3S□ Sensor mounting bracket for GX-5S□ (Accessory for GX-5S□



Model No. Symbols	MS-SS3	MS-SS5
А	16 0.630	18 0.709
В	9 0.354	10 0.394
С	6.3 0.248	8.3 0.327
D	4.9 0.193	6.1 0.240
Applicable model No.	GX-3S□	GX-5S□

GX-F/H GXL GL GX-M GX-U/GX-FU/ GX-N

Selection Guide

Amplifi Built-in

Amplifierseparate

Other Product:

Material: Nylon 66