

Information of Discontinued Models

Micro-size inductive proximity sensor GA-10 series / GH series

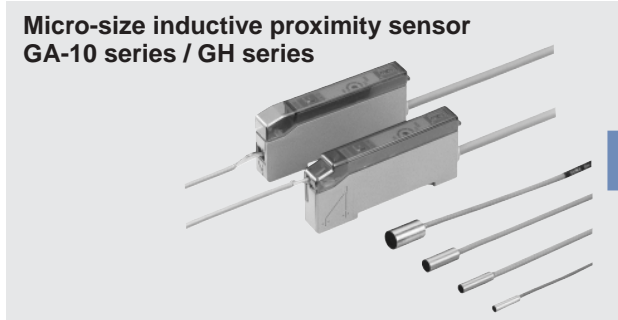
Order cut-off date:

30 Sep 2006

Date of production discontinuance: 31 Mar 2007

Discontinued models

Micro-size inductive proximity sensor GA-10 series / GH series



Recommended replacements

Compact inductive proximity sensor GA-311 / GH-□E



※Confirm that table in

Main points of difference between recommended replacements and discontinued models for details on model numbers for each type.

Refer to 'Sensor general catalog '03-'04 or SUNX website: <http://www.sunx.co.jp/> for details.

Advantages of switching to recommended replacements

One-touch connections

The connection between the sensor head and the amplifier is made using a one-touch connector. Past troublesome wiring connections using a screwdriver are no longer necessary.

Excellent workability and ease of maintenance

The all have the same form as the **FX-300** series of fiber sensors. The quick-connection cables are also of the same shape, so that fiber sensors and laser sensors can all be used together and reduces power supply wiring.

Notes on using recommended replacements

Recommended replacements	Sensing performance	Specifications	Output circuit	Mounting dimensions	Dimensions	Enclosure color
GA-311	◎	◎	◎	◎	○	◎
GH-□E	◎	◎	—	◎	◎	◎

◎: Highly interchangeable ○: Almost no difference
※: Large differences —: No corresponding item or model

- High degree of interchangeability in specifications and operability, so that replacement can be carried out smoothly.
- Recommended replacements are connector types. A quick-connection cable (optional) is required.
- The quick-connection cable must be changed to the **CN-73-C□** (3-core) and **CN-71-C□** (1-core) which are compatible with the **GA-311**.

Main points of difference between recommended replacements and discontinued models

Discontinued models		Recommended replacements	Main points of difference from discontinued models
● Amplifier		● Amplifier	
Model No.	Output	Model No.	Output
GA-14	NPN output	GA-311	NPN output
GA-14-C5	NPN output		
GA-14J	NPN output		
GA-15	NPN output		
GA-15-C5	NPN output		
GA-15J	NPN output		
● Sensor head		● Sensor head	
Model No.	Operation distance	Model No.	Operation distance
GH-2S	1.2 mm 0.047 in	GH-2SE	1.2 mm 0.047 in
GH-3S	1.8 mm 0.071 in	GH-3SE	1.8 mm 0.071 in
GH-5S	2.4 mm 0.094 in	GH-5SE	2.4 mm 0.094 in
GH-8S	4.0 mm 0.157 in	GH-8SE	4.0 mm 0.157 in
GH-F8S	4.0 mm 0.157 in	GH-F8SE	4.0 mm 0.157 in

- The recommended replacements are not equipped with an disconnection alarm output.
- Recommended replacements are connector types.
- Recommended replacements require the use of a quick-connection cable (**CN-73-C□** and **CN-71-C□**).

- Recommended replacements are connector types.

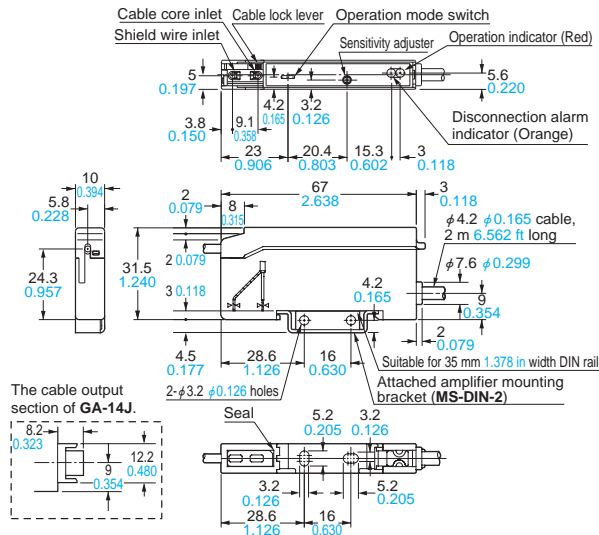
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Dimensions (Unit: mm in)

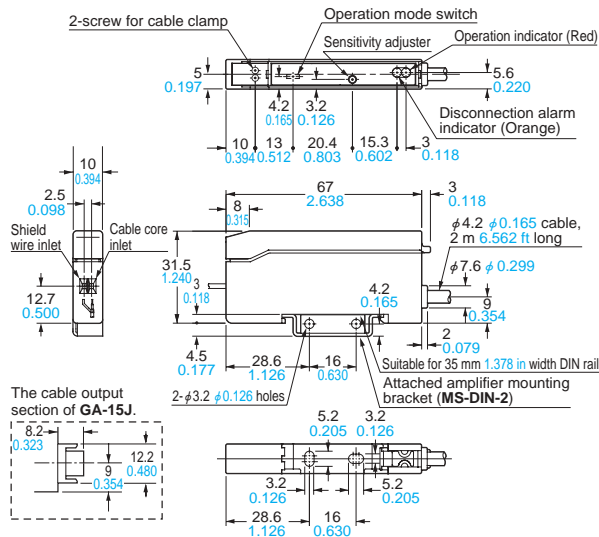
Discontinued models GA-10 series / GH series

GA-14 One-touch clamping amplifier



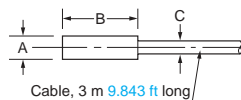
Note: The top view is without the cable and the cover.

GA-15 Screw tightening amplifier



Note: The top view is without the cable and the cover.

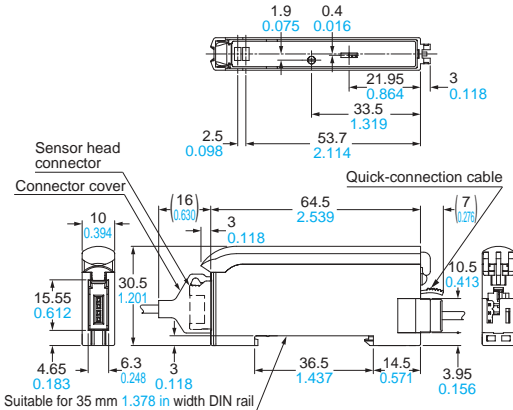
GH-□S Sensor head



Model No.	A	B	C
GH-2S	φ2.8 φ0.110	12 0.472	φ1.6 φ0.063
GH-3S	φ3.8 φ0.150	15 0.591	φ2.5 φ0.098
GH-5S	φ5.4 φ0.213	15 0.591	φ2.5 φ0.098
GH-8S	φ8.0 φ0.315	15 0.591	φ2.5 φ0.098
GH-F8S	φ8.0 φ0.315	15 0.591	φ2.65 φ0.104

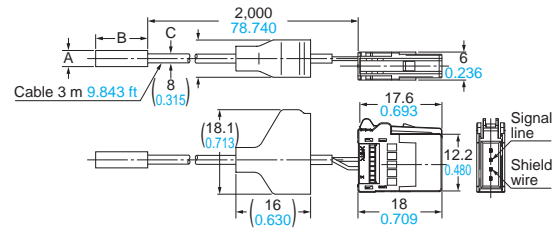
Recommended replacements GA-311 / GH-□E

GA-311 Amplifier



Note: The front view shows the sensor head connector and quick-connection cable attached.
The top view is without the quick-connection cable and the cover.

GH-□E Sensor head

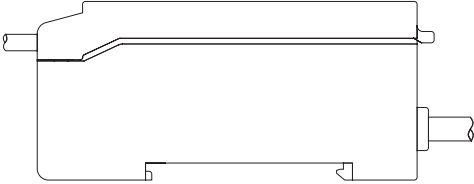
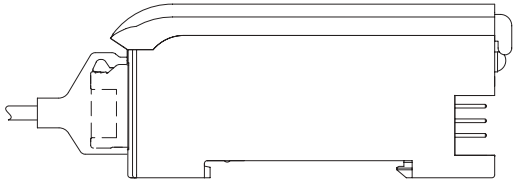
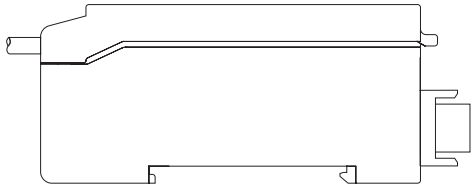
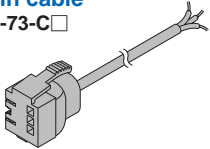
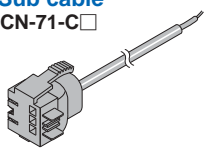


Model No.	A	B	C
GH-2SE	φ2.8 φ0.110	12 0.472	φ1.6 φ0.063
GH-3SE	φ3.8 φ0.150	15 0.591	φ2.5 φ0.098
GH-5SE	φ5.4 φ0.213	15 0.591	φ2.5 φ0.098
GH-8SE	φ8.0 φ0.315	15 0.591	φ2.5 φ0.098
GH-F8SE	φ8.0 φ0.315	15 0.591	φ2.65 φ0.104

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Examples of product configurations

Discontinued models	Recommended replacements
GA-10 series	GA-311
<p>One-touch clamping</p> 	<p>Connector type</p> 
<p>Connector type</p>  <p>※The CN-54-C cable with connector is required.</p>	<p>※The CN-73-C quick-connection cable is required. Quick-connection cable is not supplied with the amplifier. Please order it separately. ※Less connection cable can be used if the CN-71-C quick-connection cable is used when installing amplifiers side-by-side.</p> <p>Main cable CN-73-C</p>  <p>Sub cable CN-71-C</p> 

Main rated specifications

Type	Discontinued models		Recommended replacements
	One-touch clamping	Screw tightening	Connector type
Item	Model No.		Model No.
	GA-14	GA-15	GA-311
Applicable sensor head	GH series		GH-SE
Supply voltage	12 to 24 V DC \pm 10 % Ripple P-P 10 % or less		12 to 24 V DC \pm 10 % Ripple P-P 10 % or less
Current consumption	25 mA or less		25 mA or less
Output	NPN open-collector transistor <ul style="list-style-type: none"> • Maximum sink current: 100 mA • Applied voltage: 30 V DC or less (between sensing output and 0 V) • Residual voltage: 3 V or less (at 100 mA sink current) 0.4 V or less (at 16 mA sink current) 		NPN open-collector transistor <ul style="list-style-type: none"> • Maximum sink current: 100 mA (50 mA, if five, or more, amplifiers are connected in cascade.) • Applied voltage: 30 V DC or less (between output and 0 V) • Residual voltage: 3 V or less [at 100 mA (at 50 mA, if five, or more, amplifiers are connected in cascade) sink current.]
Output operation	Switchable either Normally open or Normally closed		
Short-circuit protection	Incorporated		
Max. response frequency	3.3 kHz		
Operation indicator	Red LED (lights up when the sensing output is ON)		Orange LED (lights up when the output is ON)
Disconnection alarm indicator	Orange LED (lights up when the disconnection alarm output is ON)		Red LED (lights up when the sensor head cable is disconnected or misconnected)
Sensitivity adjuster	18-turn adjuster		
Ambient temperature	- 10 to + 60 °C + 14 to + 140 °F (No dew condensation or icing allowed), Storage: - 20 to + 70 °C - 4 to + 158 °F		- 10 to + 60 °C + 14 to + 140 °F (If 4 to 7 units are connected in cascade: - 10 to + 50 °C + 14 to + 122 °F, if 8 to 16 units are connected in cascade: - 10 to + 45 °C + 14 to + 113 °F)(No dew condensation or icing allowed), Storage: - 20 to + 70 °C - 4 to + 158 °F
Material	Enclosure: Heat-resistant ABS, Cover: Polycarbonate Cable lock lever: PPS (GA-14 only), DIN rail stopper: POM		Enclosure: Heat-resistant ABS, Cover: Polycarbonate
Connecting method	0.2 mm ² 4-core cabtyre cable, 2 m 6.562 ft long		Connector (for quick-connection cable)
Weight	65 g approx.		Net weight: 15 g approx., Gross weight: 40 g approx.
Accessories	MS-DIN-2 (Amplifier mounting bracket): 1 pc., Adjusting screwdriver: 1 pc.		—

The rated performance is exactly the same for all sensor heads.

Refer to 'Sensor general catalog '03-'04 or SUNX website: <http://www.sunx.co.jp/> for details.