

Information of Discontinued Models

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

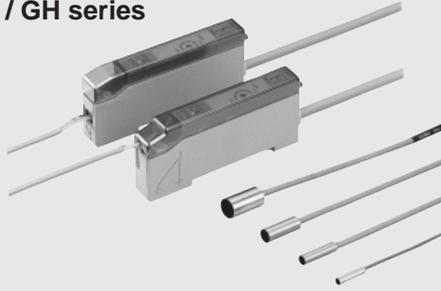
Order cut-off date:

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 <table border="1"> <thead> <tr> <th>Model No.</th> <th>Output</th> </tr> </thead> <tbody> <tr> <td>GA-14</td> <td>NPN output</td> </tr> <tr> <td>GA-14-C5</td> <td>NPN output</td> </tr> <tr> <td>GA-14J</td> <td>NPN output</td> </tr> <tr> <td>GA-15</td> <td>NPN output</td> </tr> <tr> <td>GA-15-C5</td> <td>NPN output</td> </tr> <tr> <td>GA-15J</td> <td>NPN output</td> </tr> </tbody> </table>		Model No.	Output	GA-14	NPN output	GA-14-C5	NPN output	GA-14J	NPN output	GA-15	NPN output	GA-15-C5	NPN output	GA-15J	NPN output	• Amplifier <table border="1"> <thead> <tr> <th>Model No.</th> <th>Output</th> </tr> </thead> <tbody> <tr> <td>GA-311</td> <td>NPN output</td> </tr> </tbody> </table>	Model No.	Output	GA-311	NPN output	<ul style="list-style-type: none"> • 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□). 						
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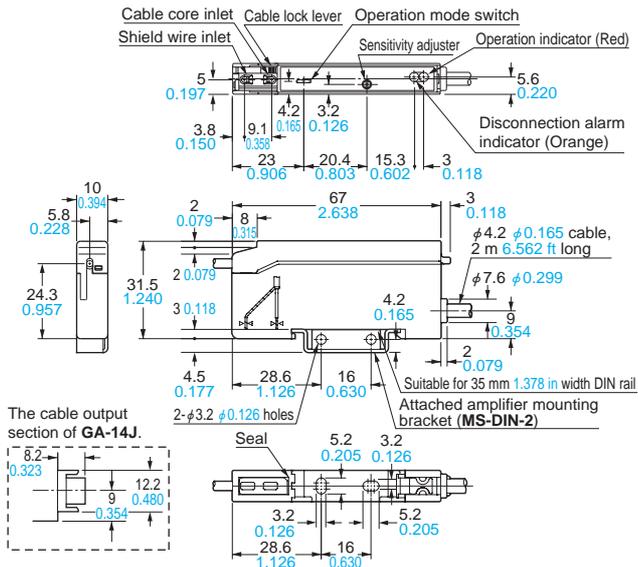
Micro-size inductive proximity sensor GA-10 series / GH series

Dimensions (Unit: mm in)

Discontinued models

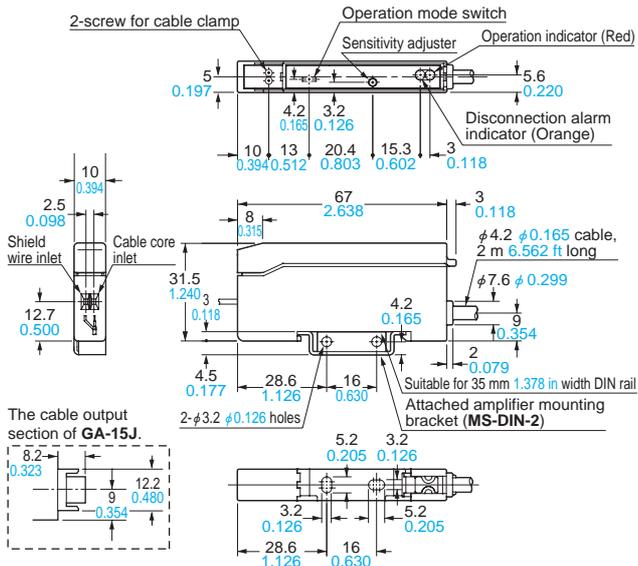
GA-10 series / GH series

GA-14 One-touch clamping amplifier



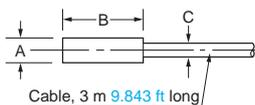
Note: The top view is without the cable and the cover.

GA-15 Screw tightening amplifier



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

GH-□S Sensor head

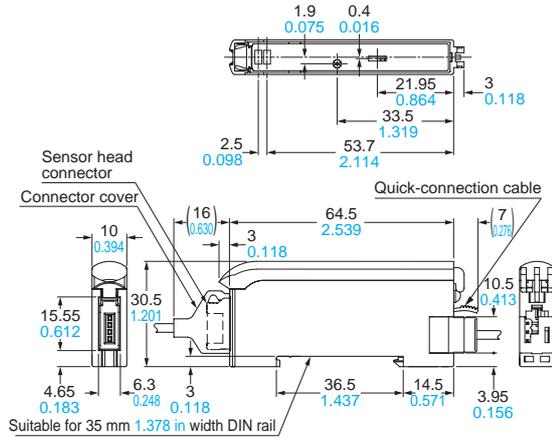


Model No.	A	B	C
GH-2S	φ2.8 φ0.110	12 0.472	φ1.6 φ0.063
GH-3S	φ3.8 φ0.150	15 0.591	φ2.5 φ0.098
GH-5S	φ5.4 φ0.213	15 0.591	φ2.5 φ0.098
GH-8S	φ8.0 φ0.315	15 0.591	φ2.5 φ0.098
GH-F8S	φ8.0 φ0.315	15 0.591	φ2.65 φ0.104

Recommended replacements

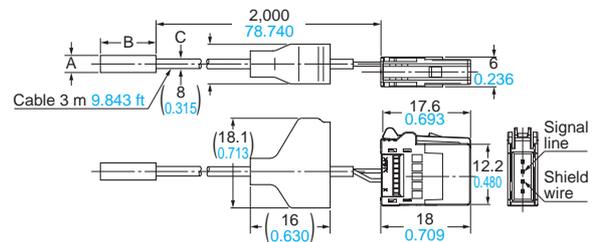
GA-311 / GH-□E

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

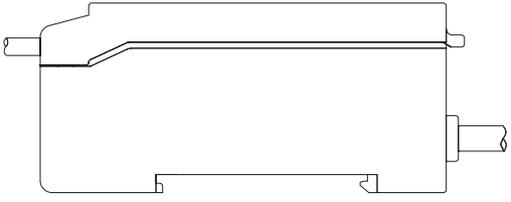
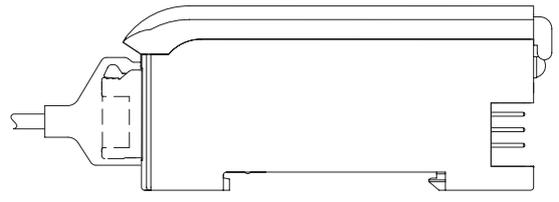
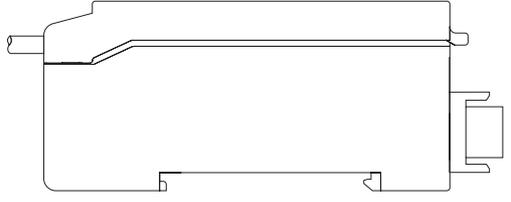
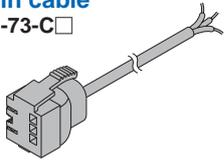
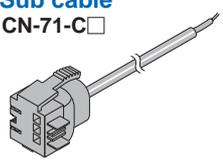


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Examples of product configurations

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-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>※The CN-54-C□ cable with connector is required.</p>	<div style="display: flex; justify-content: space-around;"> <div style="text-align: center;"> <p>Main cable CN-73-C□</p>  </div> <div style="text-align: center;"> <p>Sub cable CN-71-C□</p>  </div> </div>

Main rated specifications

Item	Type Model No.	Discontinued models		Recommended replacements
		One-touch clamping GA-14	Screw tightening GA-15	Connector type 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.