

# GX-F/H SERIES

**Related Information**

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

■ Sensor selection guide ..... P.803~

■ Glossary of terms..... P.1482~

■ General precautions ..... P.1485~

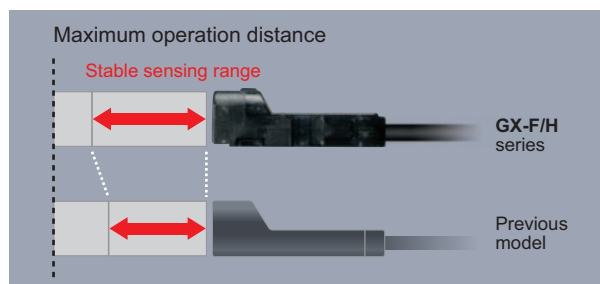

[panasonic.net/id/pidsx/global](http://panasonic.net/id/pidsx/global)

## Industry No. 1\* in stable sensing

\* Based on research conducted by Panasonic Industrial Devices SUNX as of November 2012 among equivalent rectangular inductive sensors.

### Can be installed with ample space

This sensor has the longest stable sensing range among the same level of rectangular inductive proximity sensors in the industry. It is easy to install the sensor.



| Type               | Maximum operation distance | Stable sensing range        |                             |
|--------------------|----------------------------|-----------------------------|-----------------------------|
|                    |                            | GX-F/H series               | Previous model              |
| <b>GX-□6</b>       | 1.6 mm <b>0.063 in</b>     | 0 to 1.3 mm <b>0.051 in</b> | 0 to 1.2 mm <b>0.047 in</b> |
| <b>GX-□8</b>       | 2.5 mm <b>0.098 in</b>     | 0 to 2.1 mm <b>0.083 in</b> | 0 to 1.8 mm <b>0.709 in</b> |
| <b>GX-□12</b>      | 4.0 mm <b>0.157 in</b>     | 0 to 3.3 mm <b>0.130 in</b> | 0 to 3.0 mm <b>0.118 in</b> |
| <b>GX-□15</b>      | 5.0 mm <b>0.197 in</b>     | 0 to 4.2 mm <b>0.165 in</b> | 0 to 4.0 mm <b>0.157 in</b> |
| Long sensing range | 8.0 mm <b>0.315 in</b>     | 0 to 6.7 mm <b>0.264 in</b> | 0 to 6.4 mm <b>0.252 in</b> |

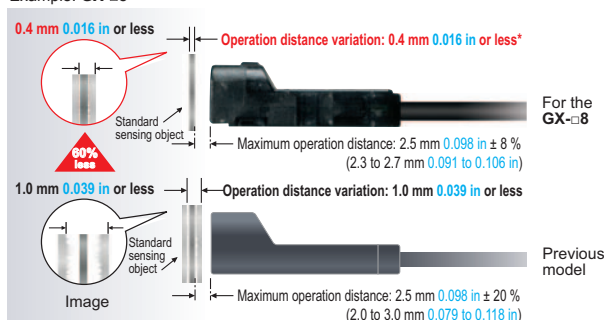
\* With standard sensing object

### Variation at the maximum operation distance is within ±8 %

Thorough adjustment and control of sensing sensitivity greatly reduces individual sensor differences and variations.

The work of adjusting sensor positions when using multiple sensors and when sensors have been replaced is much easier.

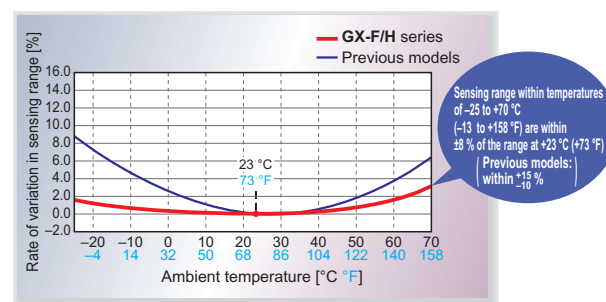
Example: GX-□8



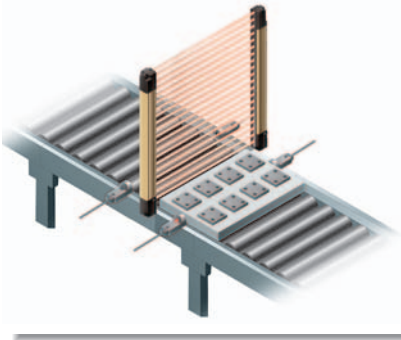
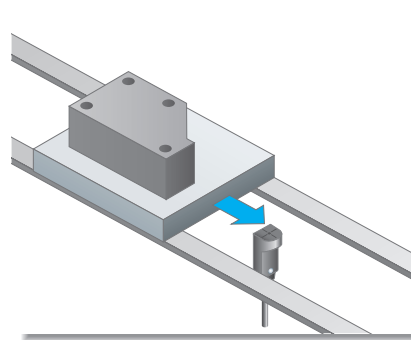
### Temperature characteristics vary within ±8 %

Components such as the sensor coil and core and product design have been totally revised to provide excellent temperature characteristics.

Stable sensing can be obtained regardless of the time of day or the yearly season.

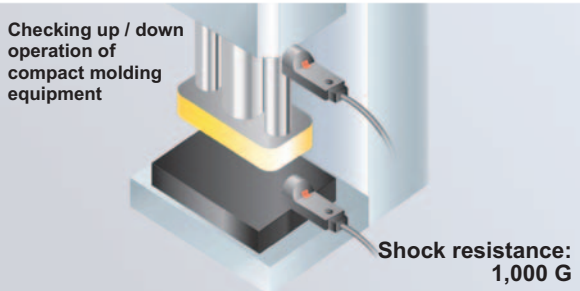


\* Typical

**APPLICATIONS****Muting control of light curtains****Positioning processing equipment****Positioning metal pallets****ENVIRONMENTAL RESISTANCE****10 times the durability! (Compared to previous models)**

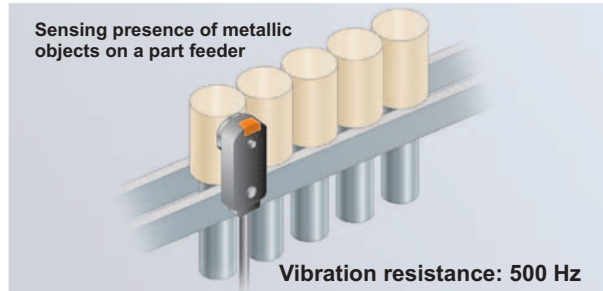
The new integrated construction method used provides shock resistance of 10,000 m/s<sup>2</sup> (approx. 1,000 G in X, Y and Z directions for three times each), and vibration resistance clears durability tests of between 10 and 500 Hz (3 mm 0.118 in amplitude in X, Y and Z directions for 2 hours each). In addition, resistance to impulse noise is approx. three times greater than for previous models.

Checking up / down  
operation of  
compact molding  
equipment



Shock resistance:  
1,000 G

Sensing presence of metallic  
objects on a part feeder



Vibration resistance: 500 Hz

**Highly resistant to water or oil!  
IP68G\* protective construction**

The new integrated construction method used improves environmental resistance performance. The IP68G prevents damage to the sensor by stopping water and oil getting inside.

\* For details, refer to the "SPECIFICATIONS (p.812~)".

**FUNCTIONS****Indicators are easy to see over a wide field of view**

A prism with a wide field of view has been developed. This has greatly improved the visibility of the operation indicators.

GX-H□



GX-F□

**MOUNTING****Tightening strength increased with no damage! (excluding GX-□6)**

A metal sleeve has been inserted. It prevents the sensor from being damaged by tightening too much.

GX-□8, GX-□12



Approx. 1.4 times  
greater than before

M3 screw  
Tightening torque: 0.7 N · m or less

GX-□15



M3 screw  
Tightening torque: 1 N · m or less

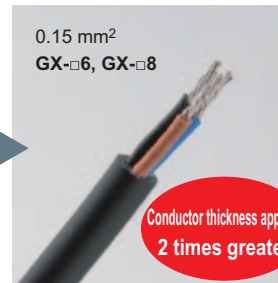
**Conductor thickness doubled to make wiring much easier! (GX-□6/□8 only)**

The conductor's thickness was doubled for the GX-□6/□8. This makes it easier to handle and perform crimping work on the cables. In addition, the tensile strength of the crimping area has become higher.

0.08 mm<sup>2</sup>  
Previous model



0.15 mm<sup>2</sup>  
GX-□6, GX-□8



Conductor thickness approx.  
2 times greater

FIBER  
SENSORS

LASER  
SENSORS

PHOTOELECTRIC  
SENSORS

MICRO  
PHOTOELECTRIC  
SENSORS

AREA  
SENSORS

LIGHT CURTAINS /  
SAFETY  
COMPONENTS

PRESSURE /  
FLOW  
SENSORS

INDUCTIVE  
PROXIMITY  
SENSORS

PARTICULAR  
USE SENSORS

SENSOR  
OPTIONS

SIMPLE  
WIRE-SAVING  
UNITS

WIRE-SAVING  
SYSTEMS

MEASUREMENT  
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  
Amplifier-  
separated

**GX-F/H**

**GXL**

**GL**

**GX-M**

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

**GX**