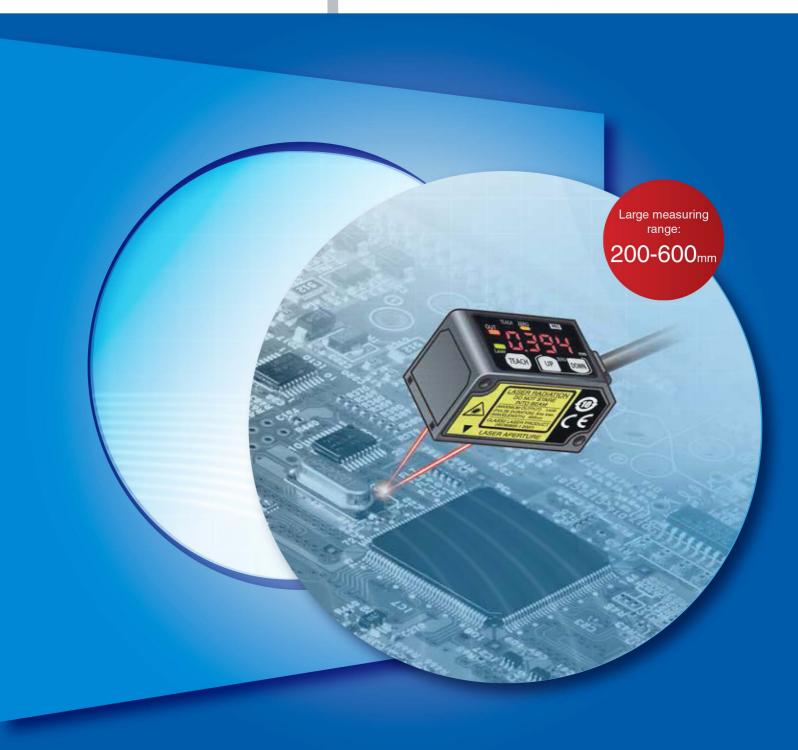


# MICRO LASER DISTANCE SENSOR HG-C SERIES



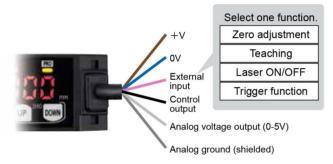


### Equipped with 0-5V analog output



The sensor not only indicates measured values in mm, but also outputs analog voltage. The data can be used for various calculations and storage (logging) when the output is sent to a PLC + analog unit.

## Configurable external input



The external input can be configured to perform one of four functions: zero adjustment, teaching, Laser ON/OFF, trigger function selection.

Measurement center distance: 400mm Measuring range: ±200mm Beam diameter: approx. 500µm Repeatability (200-400mm): 300µm Repeatability (400-600mm): 800µm

Measurement center distance: 200mm Measuring range: ±80mm Beam diameter: approx. 300µm Repeatability: 200µm

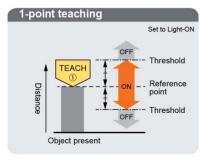
Measurement center distance: 100mm Measuring range: ±35mm Beam diameter: approx. 120µm Repeatability: 70µm

Measurement center distance: 50mm Measuring range: ±15mm Beam diameter: approx. 70µm Repeatability: 30µm

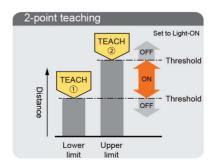
Measurement center distance: 30mm Measuring range: ±5mm Beam diameter: approx. 50µm Repeatability: 10µm

# tor mode.

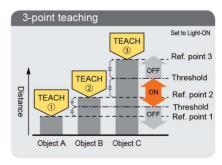
# Teaching & window comparator mode



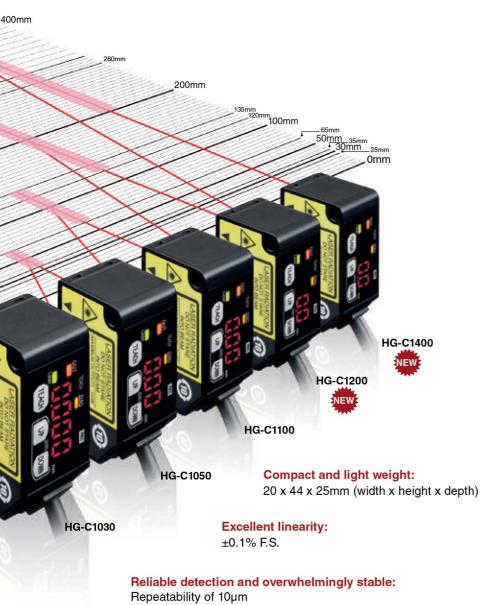
Perform 1-point teaching and the threshold range is set for the distance from the reference surface of the object to be detected.

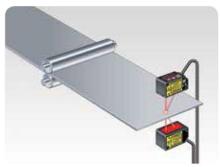


Press the button TEACH once for the lower (first point) and once for the upper limit (second point). This is useful for detecting objects at different distances.



This is the method to set the threshold range by conducting the teaching at 3 points (detecting object A, B and C). After teaching, the reference points are automatically sorted in ascending order (reference point 1, 2 and 3). The thresholds are set at the midpoints between reference point 1 and 2, and 2 and 3, respectively. This is useful for detecting objects at different distances.

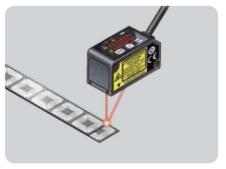




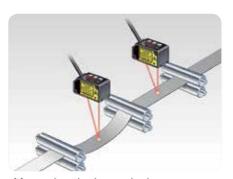
Measuring the thickness of a panel



Controlling the dispenser head height



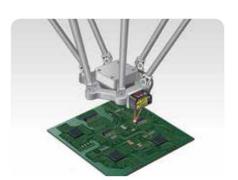
Checking for overlapped lead frames



Measuring the hoop slack



Checking for presence of O ring



Controlling the height of a robot

## Specifications NPN output

PNP output

distance

Applicable standards Measurement center

Measuring range

Repeatability

Beam diameter

Supply voltage

Control output

Analog output

Response time

Degree of protection

Ambient temperature

Ambient humidity

Ambient illumination

Cable

Material

Output operation

Short-circuit

protection

Linearity



HG-C1030

HG-C1030-P

30mm

±5mm

10<sub>um</sub>

Approx. 50µm

HG-C1050

HG-C1050-P

50mm

±15mm

30um

+0.1% FS

Approx. 70µm

HG-C1100

HG-C1100-P

Conforming to EMC Directive and FDA Standard

100mm

±35mm

70<sub>um</sub>

Approx. 120µm

12 to 24V DC ±10% including ripple max, 10% (P-P)

PNP or NPN open-collector transistor

Either Light-ON or Dark-ON

Incorporated (auto-reset)

Voltage output: 0 to 5V (at alarm: +5.2V)

Output impedance: 1000

Switchable between high speed (1.5ms), standard (5ms), and high precision (10ms)

IP67 (IEC)

-10 to +45°C (no dew condensation or icing allowed), storage: -20 to +60°C

35 to 85% RH, storage: 35 to 85% RH

3000 \earline x max. (illumination level of light receiving surface under incandescent light)

5-core cable, 2m long

Casing: aluminum die-cast, front cover: acrylic

HG-C1200

HG-C1200-P

200mm

±80mm

200um

±0,2% F.S.

Approx. 300µm

HG-C1400

HG-C1400-P

400mm

±200mm 300µm (200-400mm)

800um (400-600mm) ±0,2% F.S. (200-400mm)

±0.3% F.S. (400-600mm)

Approx. 500µm