

## CMOS Type Micro Laser Distance Sensor HG-C Series Featuring Stable Detection with 10 μm Accuracy

Repeatability

CE  
EMC directive compliance

FDA  
rule compliance

POINT

### Accurate height difference detection

High-precision detection in the 1/100 mm 0.0004 in order.  
High-precision height difference detection and shape detection are now possible.

POINT

### Standard equipped analog output

Analog output is provided in addition to control output. It can be used as a simple measurement sensor.

Analog voltage output 0 to 5 V  
Linearity ±0.1 % F.S., temperature characteristics 0.03 % F.S./°C

POINT

### Ultra compact with built-in amp

POINT

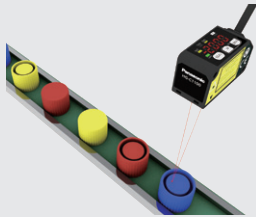
### Physical value display

Unlike relative value displays, the display is intuitive and easy to understand!

POINT

### Robust against color changes

Because the sensor is a distance type, detection is not affected by the color or gloss of workpieces.



The amount of light emission is automatically adjusted according to the sensing object. Detection is stable and accurate regardless of the color.



The name plate shows the mm unit.

POINT

### External Input setting function

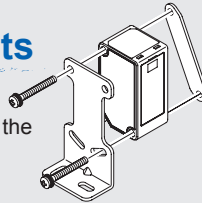
One of four functions can be assigned to an external input line.

“zero setting function,”  
“teaching function,”  
“emission stopping function”  
“trigger function”

POINT

### Lineup of simple mounting brackets

Material SUS304. Possible to fine-adjust the detection direction!  
Model: MS-HG-01



More detail, go to watch the movie



Type	Appearance	Measurement center distance and measuring range	Repeatability	Beam diameter	Model No.
Measurement center 30 mm 1.181 in type		30 mm ±5 mm 1.181 in ±0.196 in	10μm 0.394 min	Approx. ø50 μm 1.969 mil	NPN output HG-C1030 PNP output HG-C1030-P
Measurement center 50 mm 1.969 in type		50 mm ±15 mm 1.969 in ±0.590 in	30μm 1.181 min	Approx. ø70 μm 2.756 mil	NPN output HG-C1050 PNP output HG-C1050-P
Measurement center 100 mm 3.937 in type		100 mm ±35 mm 3.937 in ±1.377 in	70μm 2.756 min	Approx. ø50 μm 4.724 mil	NPN output HG-C1100 PNP output HG-C1100-P
Measurement center 200 mm 7.874 in type		200 mm ±80 mm 7.874 in ±3.150 in	200μm 7.874 min	Approx. ø300 μm 11.811 mil	NPN output HG-C1200 PNP output HG-C1200-P
Measurement center 400 mm 15.748 in type		400 mm ±200 mm 15.748 in ±7.874 in	300μm 11.811 min (Measuring distance 200 to 400 mm) 800μm 31.496 min (Measuring distance 400 to 600 mm)	Approx. ø500 μm 19.685 mil	NPN output HG-C1400 PNP output HG-C1400-P

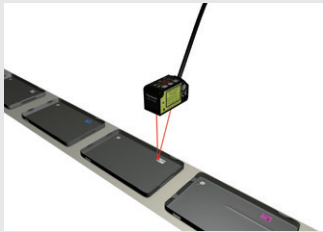
# Stable detection? Measured value management? Looking for a better solution?

## ● Need stable detection of thin objects and small difference.

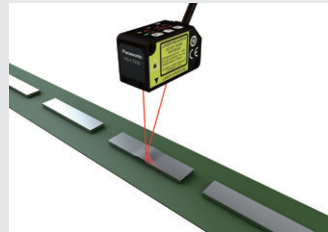
HG-C enables  $10\mu\text{m}$  level difference detection.  
(Using 30mm center distance type)

Excellent performance in detecting thin objects and small differences.

**POINT** Not affected by color or gloss of objects



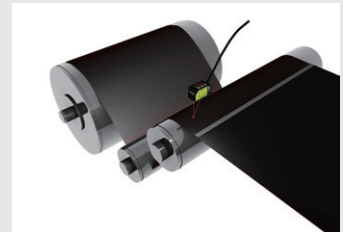
Detect 0.2mm thick seal



Detect expansion of metal parts



Front and rear detection of small electronic components

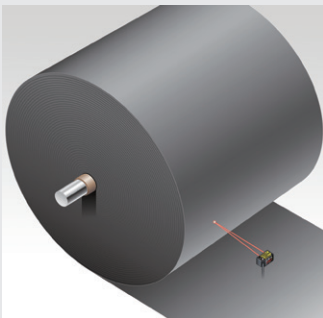


Detect sheet joints

## ● Need to detect objects from a distance.

HG-C has 200mm and 400mm measurement types. Even objects with size variation, can be detected from a distance.

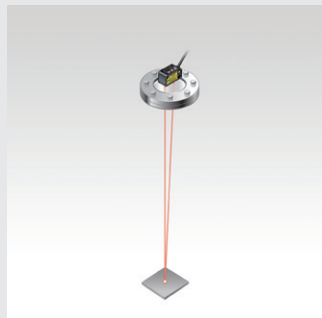
**POINT** Not affected by color or gloss of objects



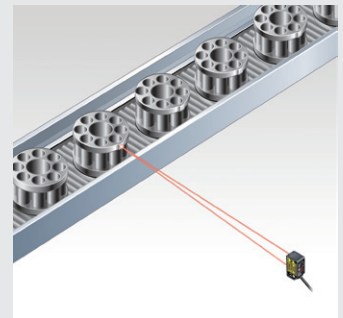
Measure residual quantity of films



Detect onboard seats



Detect parts through view ports

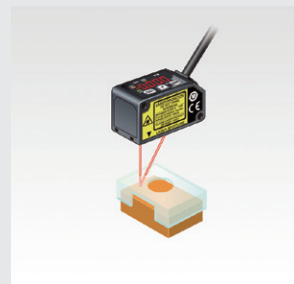
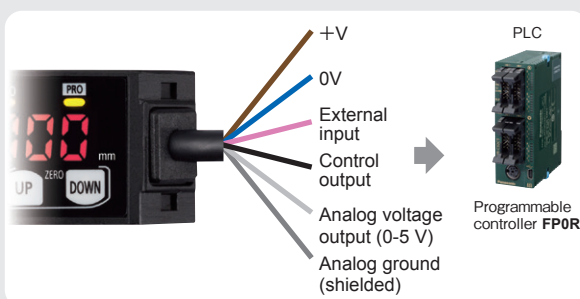


Front and rear detection of casted parts

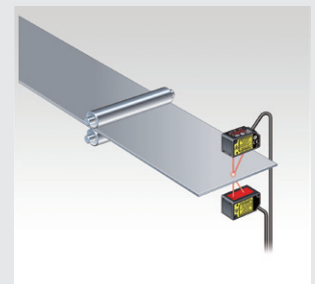
## ● Need to record measured value, but I don't need to use displacement sensor.....

HG-C has high-precision analog output as a standard function. Combination with PLC enables you to record measured values.

**POINT** Due to its high specifications, it can be used as a simplified measuring sensor.



Measure insertion measurements of parts



Measure thickness of sheets

**Panasonic**<sup>®</sup>