

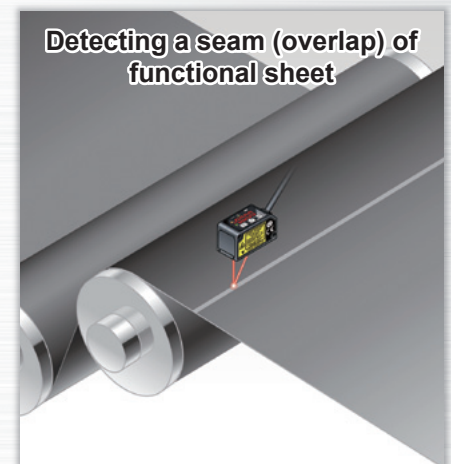
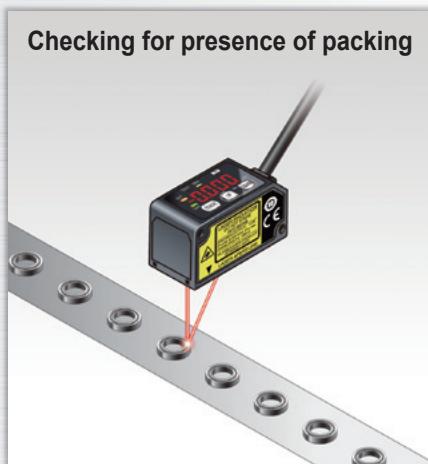
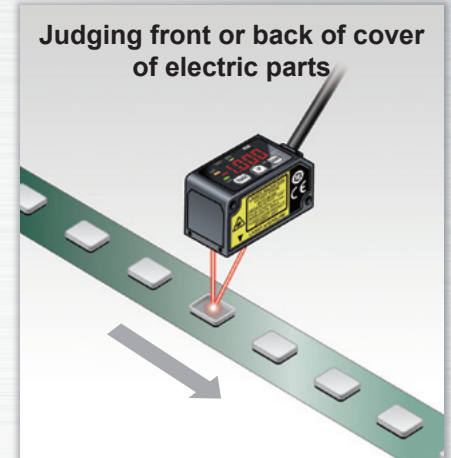
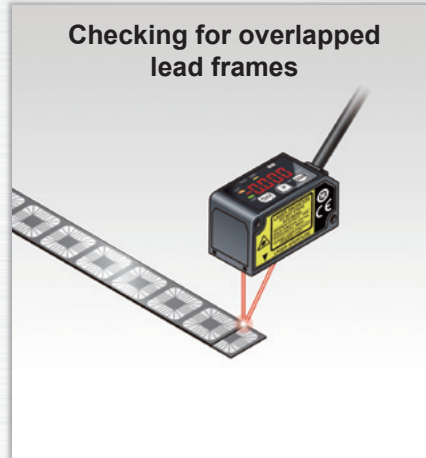
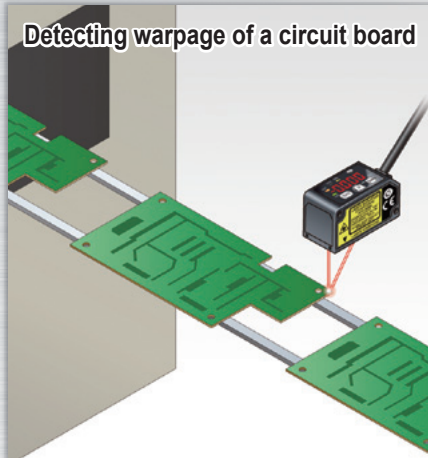
# Overwhelmingly stable

Precise measurements on the order of 1/100 mm **0.0003 inch\***

\*HG-C1030(-P)

## Excellent level detection performance

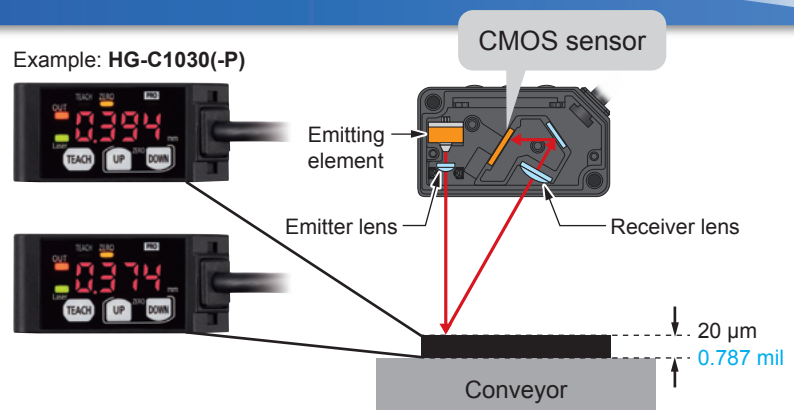
Repeatability: 10  $\mu\text{m}$  \*HG-C1030(-P)



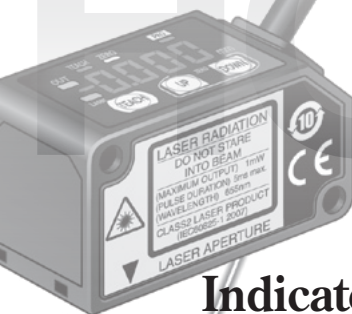
### Fitted with a precise CMOS image sensor and an original algorithm

Thanks to a precise CMOS image sensor, it is now possible to perform highly precise measurements in the order of 1/100 mm **0.0003 in.** The existing adjustable range reflective sensors cannot achieve such accuracy.

Example: HG-C1030(-P)



# HG-C SERIES



## Compact

The smallest CMOS laser sensor in the industry\*

\*Based on research conducted by our company as of May 2015

### Indicates real measurements

Linearity:  $\pm 0.1\%$  F.S. \*HG-C1030(-P) / HG-C1050(-P) / HG-C1100(-P)

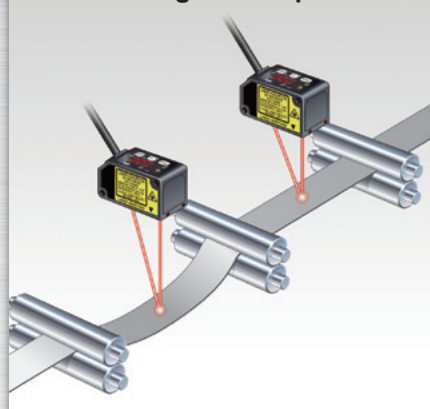
### Compact and light-weight

W20 × H44 × D25 mm, 35 g approx. (excluding the cable)

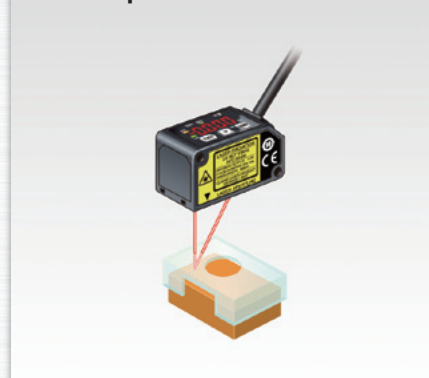
### Long distance measurement

Measurement center distance: 400 mm \*HG-C1400(-P), 200 mm \*HG-C1200(-P)

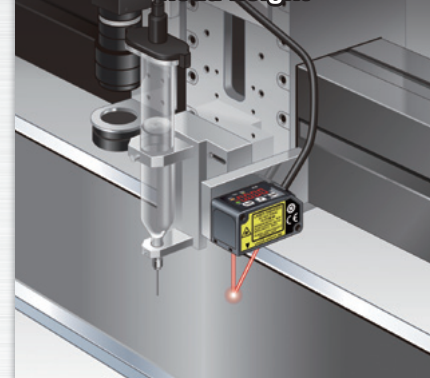
Measuring the hoop slack



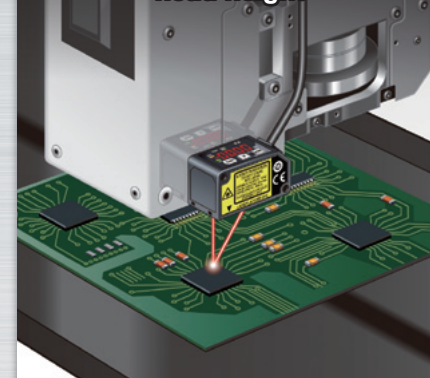
Measuring the insertion depth of an actuator



Controlling the dispenser head height



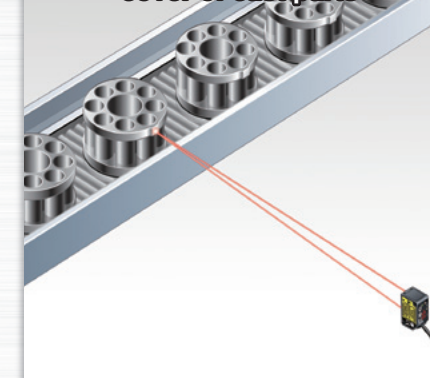
Controlling the moulder head height



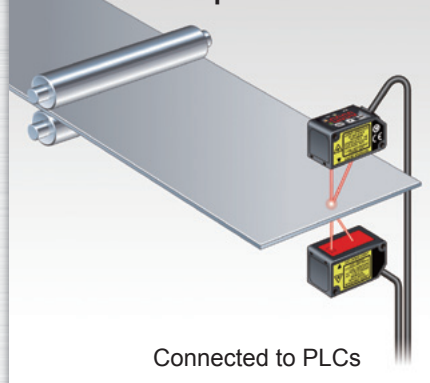
Detecting on-vehicle seats



Judging front or back of cover of cast parts

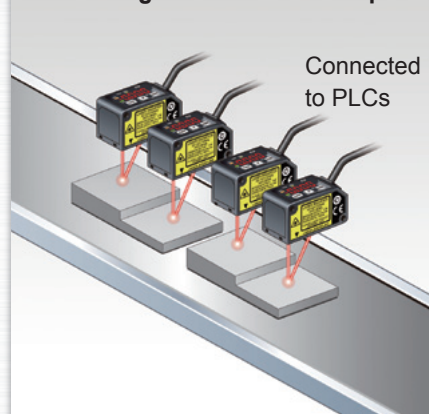


Measuring the thickness of a panel



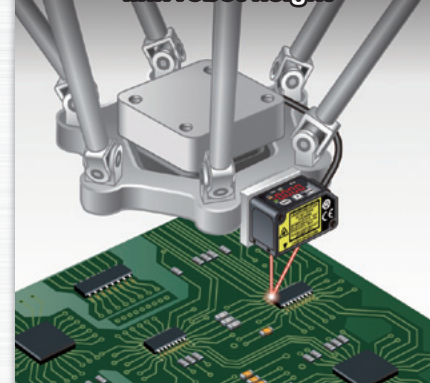
Connected to PLCs

Measuring the thickness of a part



Connected to PLCs

Controlling the parallel link robot height

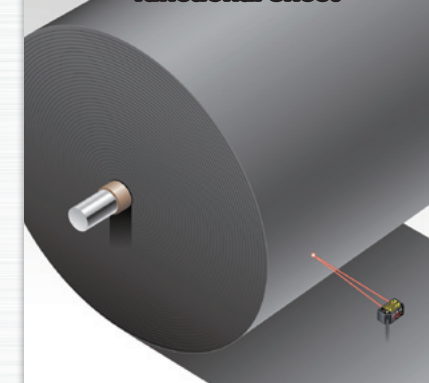


Installable on a food packaging line where water splashes (IP67)

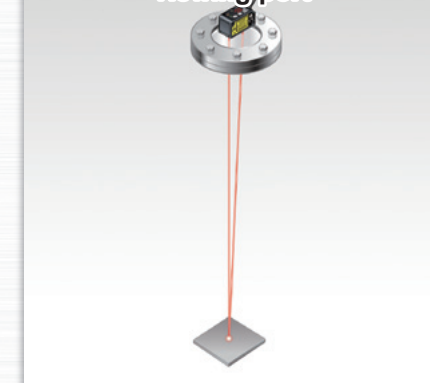


Remove water droplets on detection surface to achieve correct measurement.

Measurement of a remaining functional sheet



Detecting parts through a viewing port

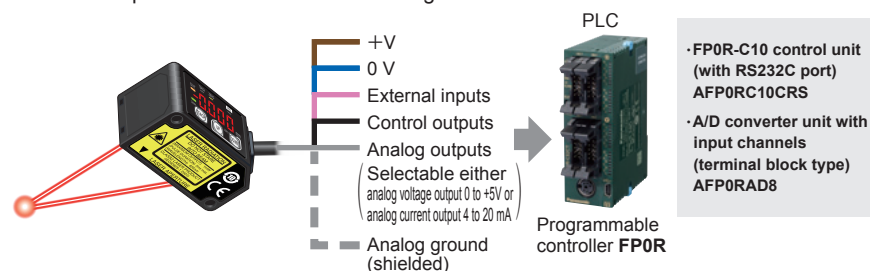


### Equipped with 0 to 5 V analog output and 4 to 20 mA analog current output

The value can be measured with a distance measurement sensor.

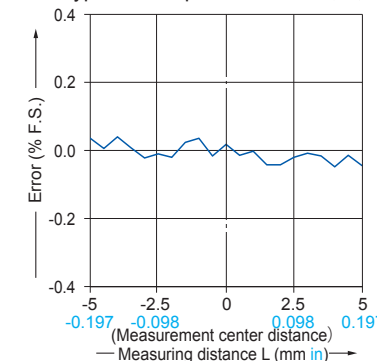
Linearity:  $\pm 0.1\%$  F.S.\*  
Temperature characteristics: 0.03%/F.S./°C

The sensor not only indicates measured values in mm but also produces analog outputs. Various calculations and storage (logging) can be performed when output is taken into a PLC + analog unit.



\*HG-C1030(-P) / HG-C1050(-P) / HG-C1100(-P)

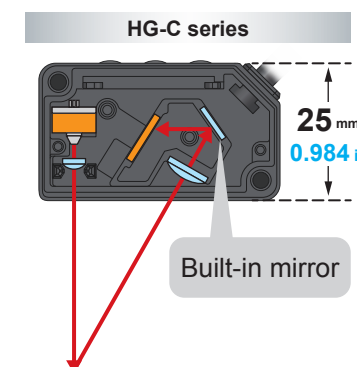
Linearity characteristics [Typical example: HG-C1030(-P)]



### A new optical system with a built-in mirror

In general, more accurate and stable measurements can be obtained by increasing the optical path length between the light-receiving part and the light receiving element (CMOS), but this also increases the sensor depth and the sensor body gets bigger.

The HG-C series sensors incorporating a new optical system with a built-in mirror provides smaller sensor depth as well as higher measurement accuracy equivalent to displacement sensors.



### An aluminum die-cast casing protects from strain and heat

A light-weight but strong die-cast aluminum casing has been adopted. A compact, solid body casing reduces the impact of strain and heat on the measurement accuracy.

Aluminum die-cast casing

