

DATASHEET

## HG-C SERIES | LASER SENSORS

Laser Distance Sensors

- Measuring ranges 10 mm - 400 mm
- Repeatability 10  $\mu$ m - 800  $\mu$ m
- Linearity  $\pm 0,1$  % -  $\pm 0,3$  %
- Protection class IP67
- Switching output NPN
- Analog output 0...5V /4...20mA





## TECHNICAL DATA

The digital laser sensors of the **HG-C series** measure the distance or the position of an object in a highly reliable, non-contact and wear-free manner. The sensor emits a laser beam which is reflected by the target. Through a lens the reflected light hits a highly sensitive CMOS sensor at a defined angle. A change of the distance to the measuring object causes a change of angle and thus, also a shifting light spot on the CMOS sensor. From this the distance to the measuring object is calculated. The HG-C series incorporates a special optical system in the housing, which deflects the laser beam. For this reason, the housing dimensions are extremely small with a height of 25 mm. The HG-C series is characterized by the small housing dimensions and its attractive price. Thanks to an integrated controller, the sensor automatically adapts to different materials. Stable measurements on difficult or changing surfaces are thus possible. The display with three teach-in push-buttons ensures an easy sensor configuration.



### HG-C series

Laser distance sensors	Model	Measurement range
	HG-C1030	10 mm
	HG-C1050	30 mm
	HG-C1100	70 mm
	HG-C1200	160 mm
	HG-C1400	400 mm

## TECHNICAL DATA

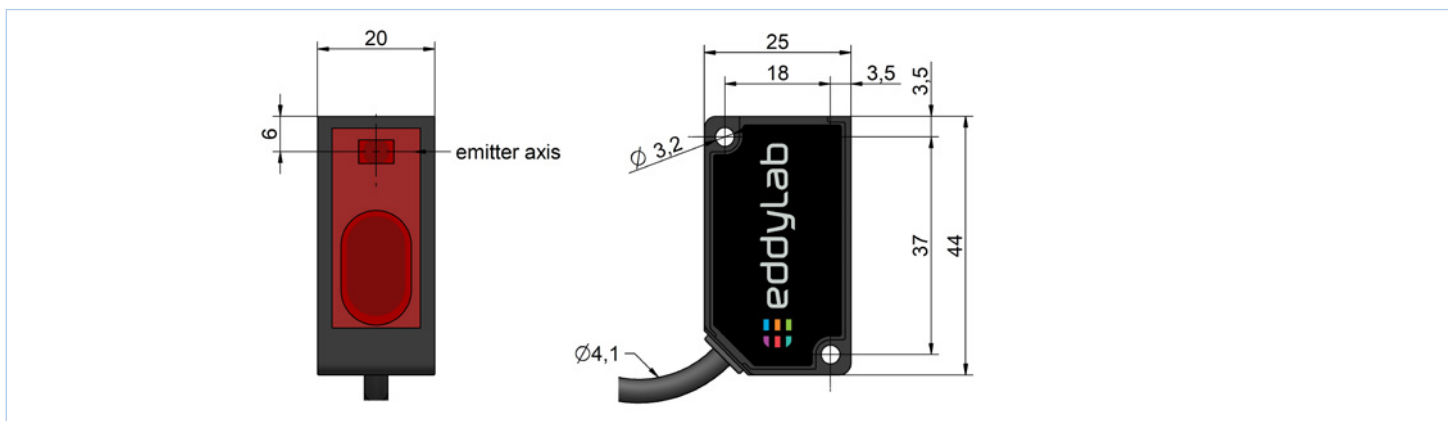
HG-C SERIES	HG-C1030	HG-C1050	HG-C1100	HG-C1200	HG-C1400
Measurement center distance [mm]	25...35	35...65	65...135	120..280	200..600
Measuring range [mm]	10	30	70	160	400
Repeatability [µm]	10	30	70	200	300 (200 - 400 mm) 800 (400 - 600 mm)
Linearity		±0,1 %		±0,2	±0,2 % (200 - 400 mm) ±0,3 % (400 - 600mm)
Beam diameter	Ca. 50 µm	Ca. 70 µm	Ca. 120 µm	Ca. 300 µm	Ca. 500 µm
Supply voltage	12 - 24 V DC ±10 %				
Control output	NPN open-collector transistor (PNP on request)				
Output operation	Switchable either Light-ON or Dark-ON				
Short-circuit protection	Incorporated (auto-reset)				
Analog output	Voltage output: 0 to 5V (at alarm: +5.2V) / Output impedance: 100Ω Current output: 4 to 20mA (at alarm: 0mA) / Load impedance: 300Ω or less Switchable via settings				
Response time	Switchable between high speed (1.5ms), standard (5ms), and high precision (10ms)				
Protection class	IP67				
Ambient temperature	-10 to +45°C (no dew condensation or icing allowed), storage: -20 to +60°C				
Ambient humidity	35 to 85% RH, storage: 35 to 85% RH				
Ambient illumination	3000lx max.				
Output	5-core cable, 2m long, shielded				
Material	Housing: aluminum die-cast, front cover: acrylic				
Dimensions (B x W x T)	20 x 44 x 25 mm				

### ORDER CODE

NPN output	HG-C1030	HG-C1050	HG-C1100	HG-C1200	HG-C1400
PNP output	HG-C1030-P	HG-C1050-P	HG-C1100-P	HG-C1200-P	HG-C1400-P

## TECHNICAL DRAWINGS

### HG-C



## CONNECTION

### HG-C SERIES

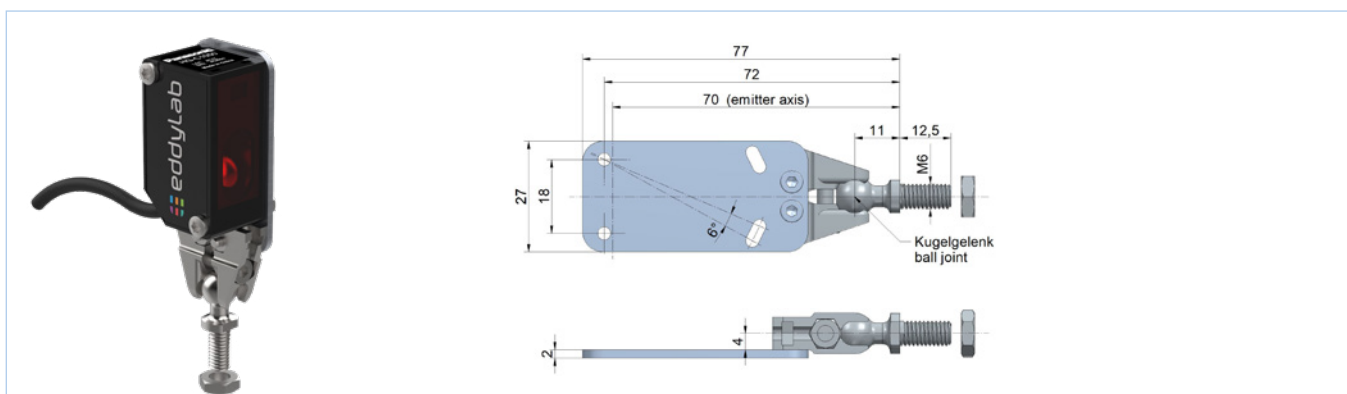
PIN	FUNCTION	CABLE COLOUR
1	+Vs	brown
2	GND	blue
3	external input	pink
4	control output	black
5	voltage output: 0 - 5V/ current output: 4 - 20 mA	grey

### CONFIGURABLE EXTERNAL INPUT

configurable functions	Zero adjustment
	Teaching
	Laser ON/OFF
	Trigger function

## MOUNTING ACCESSORIES

### FLEXMOUNT



### MOUNTING BRACKET

