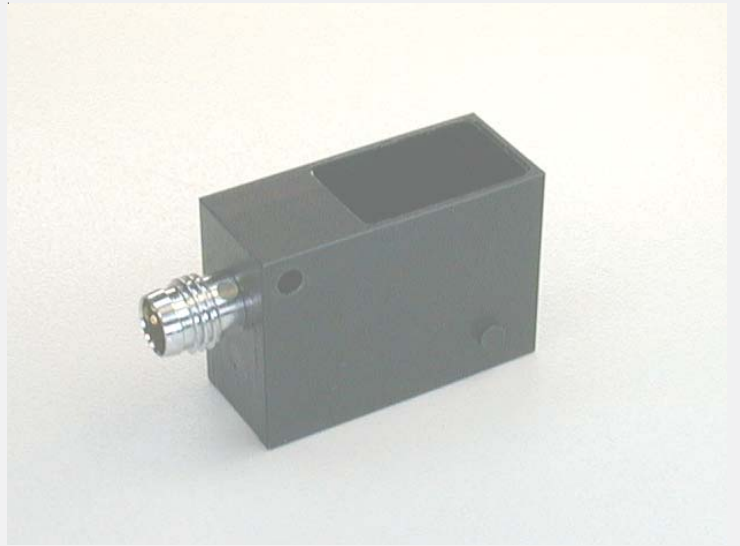


# C-LAS Series

## ▶ C-LAS-LT-65-ANA

Laser displacement sensor with analog output

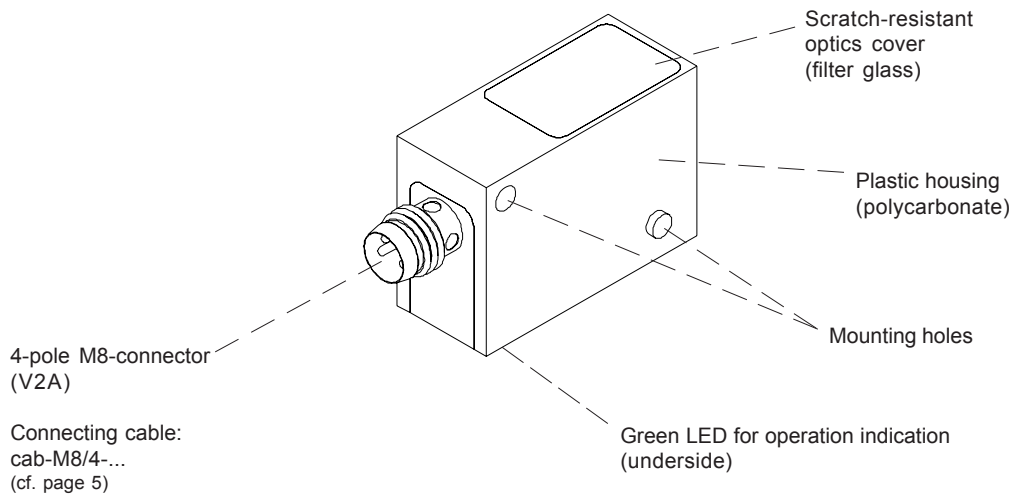
- High dynamic range
- Analog output 0V ... +10V
- Automatic laser power adjustment
- Working range typ. 35 mm ... 120 mm
- Scratch-resistant optics made of glass
- Short-circuit protection, reversed polarity protection
- 4-pole M8-connector made of metal, LED indicator
- Visible red laser light 670 nm, class 2 laser product



Design

### Product name:

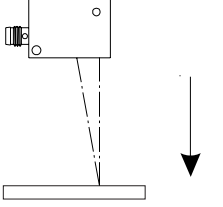
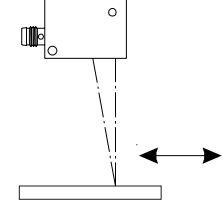
C-LAS-LT-65-ANA




**Technical Data**

Model	C-LAS-LT-65-ANA
Laser	Semiconductor laser: 670 nm, 1 mW max. opt. output, class 2 laser product acc. to DIN EN 60825-1. The use of these laser transmitters therefore requires no additional protective measures.
Reference distance	typ. 65 mm
Min. detectable object (at a distance of 50 mm)	typ. 50 µm
Target distance	typ. 35 mm ... 120 mm; with KODAK white and KODAK black: typ. 40 mm ... 100 mm
Laser spot diameter	beam diameter in the focus (at 50 mm distance): typ. < 0,2 mm beam diameter at transmitter optic output: typ. < 2 mm
Optical filter	Red light filter RG645
Voltage supply	+10VDC ... +32VDC, reversed-polarity protection, overcurrent protection
Power supply	AC-operation, typ. 100 kHz
Ambient light	Up to 5000 Lux
Enclosure rating	IP67
Current consumption	Approx. 50 mA
Focusing of laser beam	At a distance of 50 mm (typ.)
Output (analog)	Analog output 0V ... +10V (typ.), please cf. graphs
EMC test acc. to	DIN EN 60947-5-2
Connector type	Connection to PLC: 4-pole M8-connector
Working temperature range	-20°C ... +55°C
Storage temperature range	-20°C ... +85°C
Housing	Polycarbonate, black
Analog band width	1 kHz (-3dB fall)
Operation indicator	Green LED
Laser power correction	Due to integrated laser power correction, the sensor is largely independent of brightness of measuring object (for instance KODAK white and KODAK black)
Analog output rest ripple	typ. 50 mV (frequency band width typ. 1 kHz)

Technical Data

Model	C-LAS-LT-65-ANA
<p>Repeatability for targets moved directly to the sensor (target coming from the top)</p> 	<p>typ. <math>\pm 0,01</math> V (target white mat) *                      typ. <math>\pm 0,02</math> V (target black mat) *                      at target distance 50 mm ... 70 mm</p> <p>* measured with Multimeter Fluke 77</p>
<p>Repeatability for targets being shifted below the sensor at constant target distance</p> 	<p>typ. <math>\pm 0,02</math> V (target white mat) *                      typ. <math>\pm 0,04</math> V (target black mat) *                      at target distance 50 mm ... 70 mm</p> <p>* measured with Multimeter Fluke 77</p>

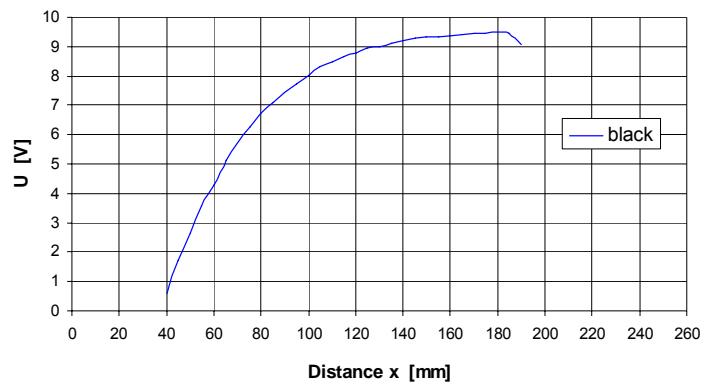
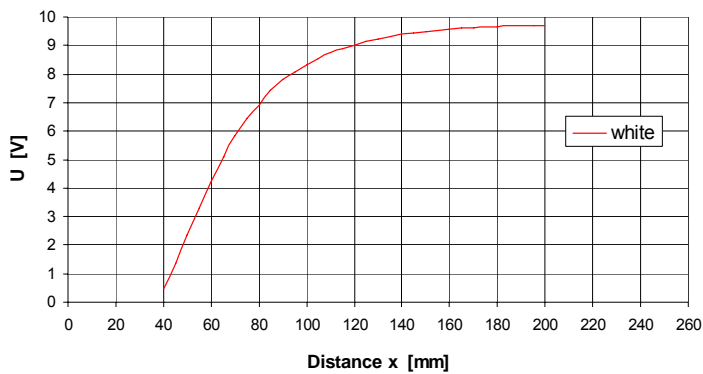
Graphs

Object white mat:

Object black mat:

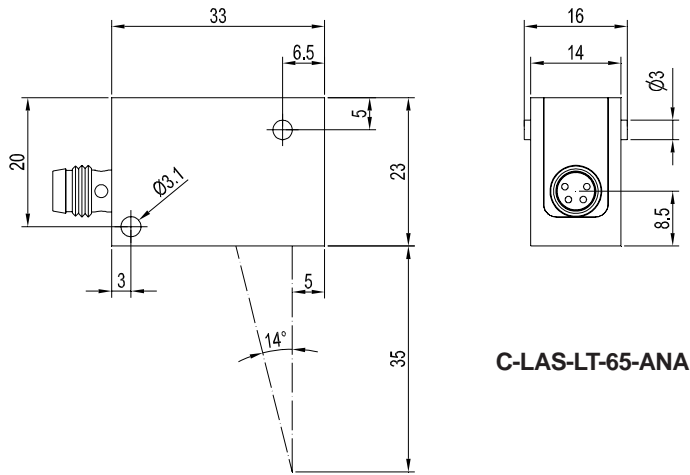
C-LAS-LT-65-ANA (Ser. No. 00021)

C-LAS-LT-65-ANA (Ser. No. 00021)





Dimensions



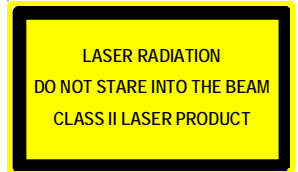
(All dimensions in mm)



Laser Warning

The transmitters of the laser sensors of C-LAS Series comply with laser class 2 according to EN 60825-1. The use of these transmitter requires no additional protective measures.

The transmitters of C-LAS Series are supplied with a laser warning label.



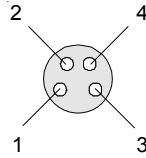


**Connector Assignment**

**Connection to PLC:**

**C-LAS-LT-65-ANA:**  
4-pole M8-connector

Pin No.:	Color:	Assignment:
1	brown	+10VDC ... +32VDC
2	white	ANALOG (0V .... +9V)
3	blue	GND (0V)
4	black	not connected



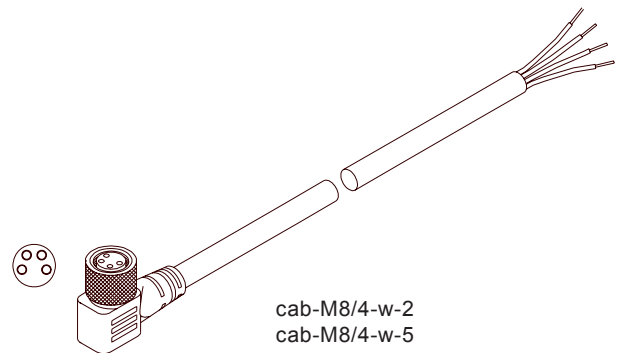
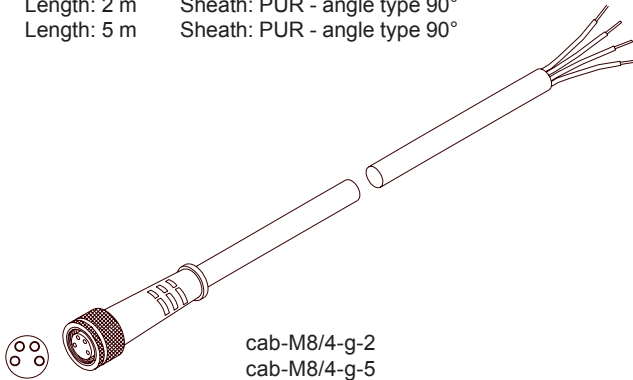
Connecting cable:  
cab-M8/4-g-(length) or  
cab-M8/4-w-(length) (angle type 90°)  
(standard length 2m)



**Connecting Cables**

**Available connecting cables:**

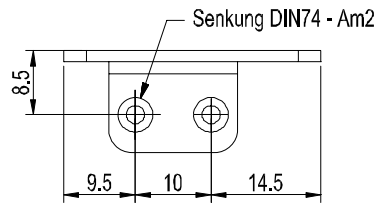
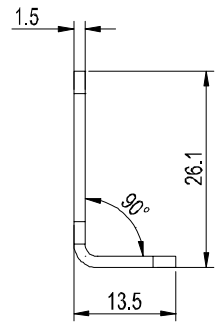
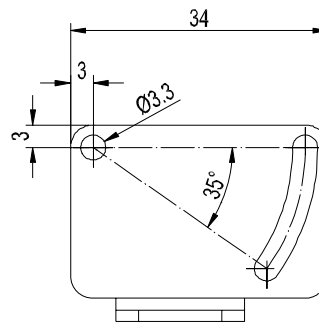
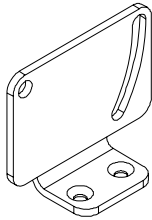
cab-M8/4-g-2	Length: 2 m	Sheath: PUR
cab-M8/4-g-5	Length: 5 m	Sheath: PUR
cab-M8/4-w-2	Length: 2 m	Sheath: PUR - angle type 90°
cab-M8/4-w-5	Length: 5 m	Sheath: PUR - angle type 90°





**Mounting**

Mounting device: MOUNT-23/34 (please order separately)



(All dimensions in mm)

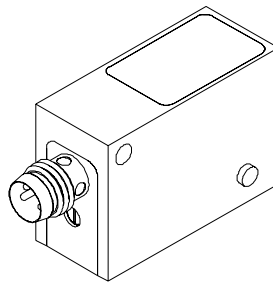


**Product Line**

**Summary Compact Laser Sensors:**

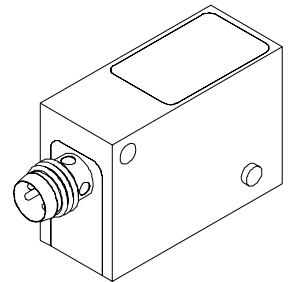
**C-LAS-LT-35**  
**C-LAS-LT-65**

Laser displacement sensor  
with background suppression



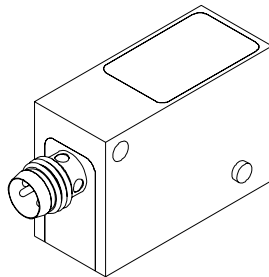
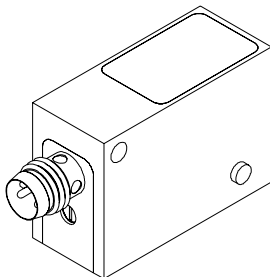
**C-LAS-LT-35-ANA**  
**C-LAS-LT-65-ANA**

Laser displacement sensor  
with analog output



**C-LAS-14 (transmitter and receiver)**

Laser oneway light barrier



**C-LAS-LR-RP2**  
**C-LAS-LR-OP2**

Laser reflection light barriers

