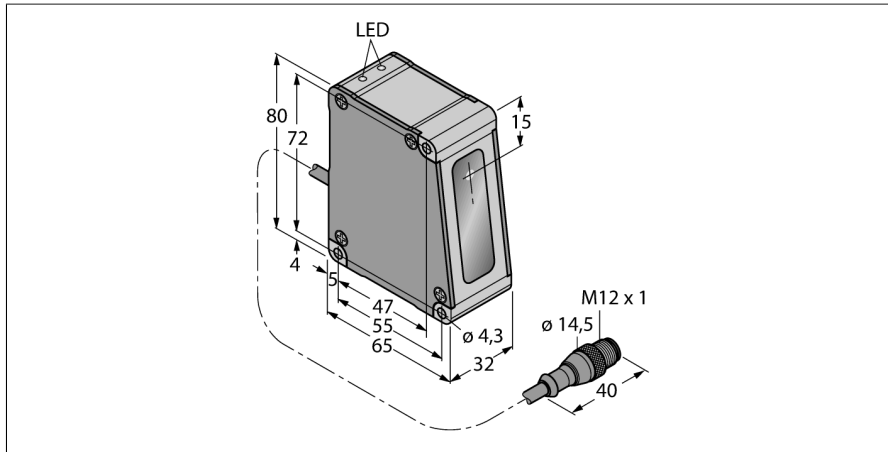


Photoelectric Sensor

Diffuse Mode Sensor

Laser Measuring System

LH30IX485QP



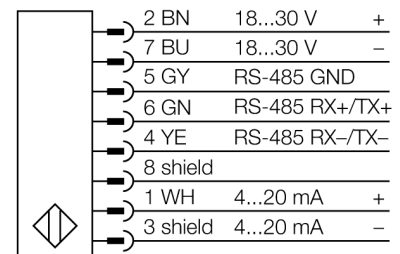
Type	LH30IX485QP
ID	3011950

Optical data	
Function	Proximity switch
Operating mode	Triangulation
Light type	Red
Wavelength	670 nm
Laser class	2
Optical resolution	0.001 mm
Range	25...35 mm
Ambient light immunity	3000 lux

Electrical data	
Operating voltage U_s	18...30 VDC
Residual ripple	< 10 % U_s
DC rated operating current I_s	≤ 250 mA
Short-circuit protection	yes/Cyclic
Reverse polarity protection	yes
Communication protocol	RS485
Type of analog output	4...20 mA
Current output	4...20 mA
Load resistance	≤ 1000 Ω
Readiness delay	≤ 1.25 s
Readiness delay	≤ 1250 ms
Response time typical	< 0.25 ms

- Indication of signal intensity
- Measuring range 25...35 mm
- Max. resolution 1 μm
- Laser beam at 30 mm distance: 50 μm
- Thickness measurement, nominal 5 mm via connection of a second LH30 (adapter CSB3-M1281M1282-LH required)
- Operating voltage 18...30 VDC
- Analog output 4...20 mA
- RS485 serial communication
- Adjustable via enclosed software
- USB converter INTUSB458-LH required
- 8-pin Y-piece CSB-M1280M1280-LH required

Wiring Diagram



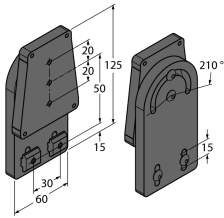
Functional principle

The functional principle of the LH sensors is based on optical laser triangulation. The emitter and the optics create a light source that is directed towards a target. The target reflects the laser beam back to the receiver lens of the sensor, from where it then falls onto the CMOS receiving element. The target's distance to the receiver determines the angle at

Mechanical data	
Design	Rectangular, LH
Housing material	Metal, AL, Black
Lens	glass
Electrical connection	Cable with connector, M12 × 1, 0.15 m, PVC
Number of cores	8
Core cross-section	0.34 mm ²
Ambient temperature	-10...+45 °C
Storage temperature	-10...+80°C
Protection class	IP67
Special features	
Power-on indication	Synchronization LED, Green
Tests/approvals	
Approvals	LH

which the light hits the receiver element. The integrated microprocessor uses this angle to analyse the target's position and to create a corresponding output signal.

Accessories

Type code	Ident no.		Dimension drawing
SMBLH1	3012717	Mounting bracket, anodized aluminium, black, for side mounting of LH sensor	
SMBLH30	3012719	Mounting bracket, anodized aluminium, black, for LH30 sensor pair, for distance and thickness measurement	