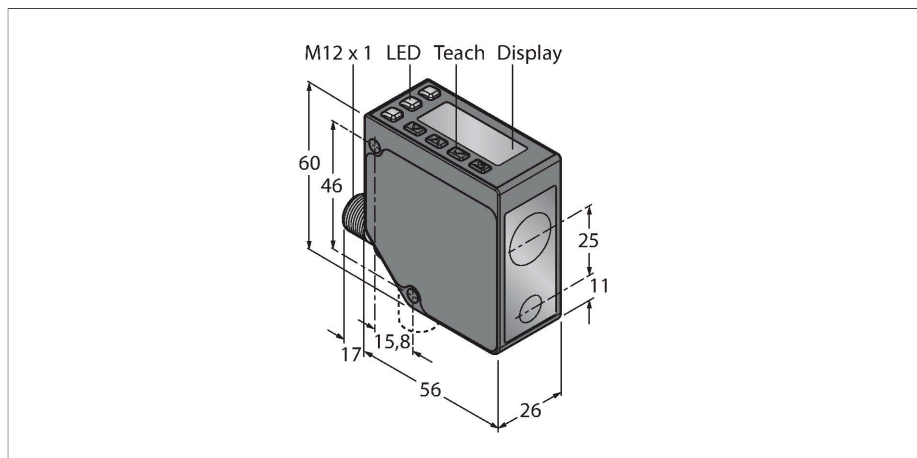


LE550KQ

Photoelectric Sensor – Laser Scanning System



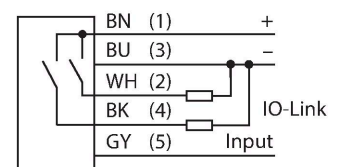
Technical data

Type	LE550KQ
ID	3097761
Optical data	
Function	Proximity switch
Operating mode	Triangulation
Light type	Red
Wavelength	650 nm
Laser class	▲ 2
Optical resolution	1 mm
Repeatability	0.5 mm
Range	100...1000 mm
Ambient light immunity	10000 lux
Electrical data	
Operating voltage	12...30 VDC
DC rated operational current	≤ 70 mA
Short-circuit protection	yes
Reverse polarity protection	yes
Communication protocol	IO-Link
Output function	NO/NC, PNP
Switching frequency	≤ 250 Hz
Readiness delay	≤ 2 s
Readiness delay	≤ 3000 ms
Response time typical	< 2 ms
IO-Link	
IO-Link specification	V 1.1
IO-Link port type	Class A
Communication mode	COM 2 (38.4 kBaud)

Features

- 2-line 8-segment display
- Rotatable connector, male M12 × 1, 5-pin
- Range: 100...1000 mm
- Laser class 2, red, 650 nm, acc. to IEC 60825-1:2007
- Resolution at 100 mm - 600 mm distance: < 0.5 mm
- Resolution at 600 mm - 1000 mm distance: < 1 mm
- Operating voltage: 12...30 VDC
- 1 × PNP switching output with IO-Link communication
- Transmission of process value and parametrization via IO-link

Wiring diagram



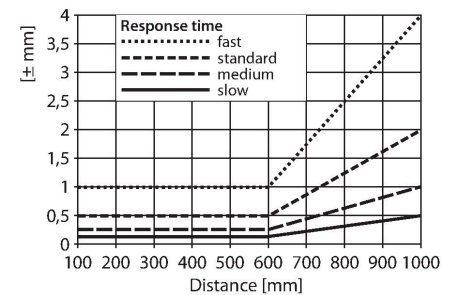
Functional principle

The LE550 laser sensors measure the distance to an object up to a range of 1 m. The settings are made via buttons at the housing. The built-in display assists with the menu navigation and is used to display the measured distance. The switching output is reprogrammable and the analog output is, depending on the type, either laid out as current or voltage output. The integrated connector is rotatable by 90° degrees which makes it easy to mount. The transmitter LED can be turned off via the menu or the grey wire (PIN 5). The same wire can be used to operate two devices in the synch mode, which prevents mutual influence. The measurement achieves an accuracy of 0.5 mm at a distance of max. 600 mm.

Technical data

Process data width	16 bit
Frame type	Type_2_2
Minimum cycle time	2 ms
Function Pin 4	IO-Link
Function Pin 2	DI
Maximum cable length	20 m
Profile support	Smart Sensor Profil
Included in the SIDI GSDML	Yes

Excess Gain Curve



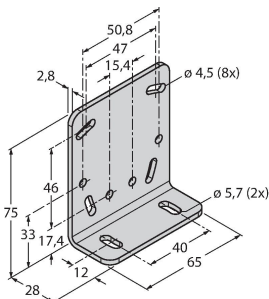
Mechanical data	
Design	Rectangular, LE550
Dimensions	56 x 26 x 77 mm
Housing material	Metal, Zinc Alloy Die-Cast, Black
Lens	plastic, Polycarbonate
Electrical connection	Connector, M12 × 1, PVC
Number of cores	5
Ambient temperature	-20...+55 °C
Storage temperature	-30...+65 °C
Relative humidity	90 %
Protection class	IP67
Special features	keep/defer
Power-on indication	LED, Green
Switching state	LED, Yellow
Tests/approvals	
Approvals	CE, cULus listed

Accessories

SMBLEL

3086754

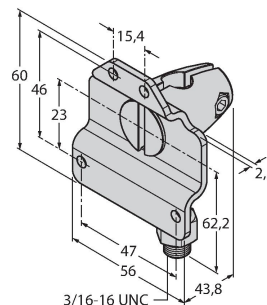
Mounting bracket, rectangular, stainless steel, for side mounting of LE250/550 sensors



SMBLEFA

3088226

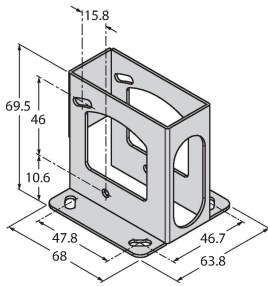
Mounting bracket, rotatable, stainless steel, for sensors of the LE250/550 series



SMBLEU

3086755

Protective housing, stainless steel, for sensors of the LE250/550 series

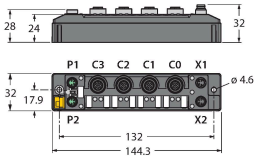
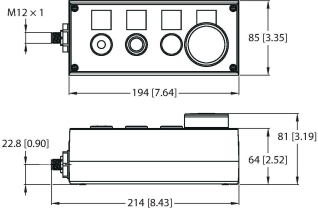
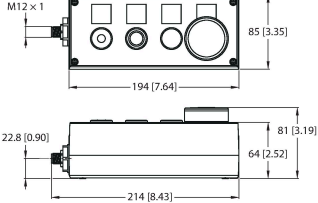
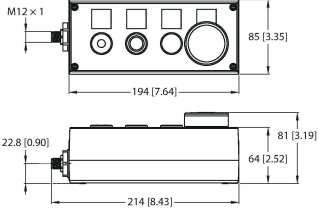


Accessories

Dimension drawing	Type	ID	
	RKC4.5T-2/TEL	6625016	Connection cable, female M12, straight, 5-pin, cable length: 2 m, sheath material: PVC, black; cULus approval; other cable lengths and qualities available, see www.turck.com
	WKC4.5T-2/TEL	6625028	Connection cable, female M12, angled, 5-pin, cable length: 2 m, sheath material: PVC, black; cULus approval; other cable lengths and qualities available, see www.turck.com
	RKS4.5T-2/TEL	6626361	Connection cable, M12 female connector, straight, 5-pin, cable length: 2 m, sheath material: PVC, black; shielded; cULus approval; other cable lengths and qualities available, see www.turck.com
	WKS4.5T-2/TEL	6626364	Connection cable, M12 female connector, angled, 5-pin, cable length: 2 m, sheath material: PVC, black; shielded; cULus approval; other cable lengths and qualities available, see www.turck.com

Accessories

Dimension drawing	Type	ID	
	BL67-4IOL	6827386	4-channel IO-Link Master module for the modular BL67 I/O-system
	BL20-E-4IOL	6827385	IO-Link master module for the modular BL20 I/O system, 4-channel
	USB-2-IOL-0002	6825482	IO-Link Master with integrated USB port
	TBIL-M1-16DXP	6814102	16-channel I/O-hub for the connection of 16 digital PNP signals to an IO-Link master (input/output freely selectable per channel)

Dimension drawing	Type	ID	
	TBEN-S2-4IOL	6814024	Compact multiprotocol I/O module, 4 IO-Link Master 1.1 Class A, 4 universal PNP digital channels 0.5 A
	OPIL-E4-IO2-FE01(DE)	100029326	16-channel I/O hub for the connection of 16 digital PNP signals to an IO-Link master (input/output freely selectable per channel)
	OPIL-E4-IO2-FE02	100029327	16-channel I/O hub for the connection of 16 digital PNP signals to an IO-Link master (input/output freely selectable per channel)
	OPIL-E4-IO2-FE03	100029328	16-channel I/O hub for the connection of 16 digital PNP signals to an IO-Link master (input/output freely selectable per channel)