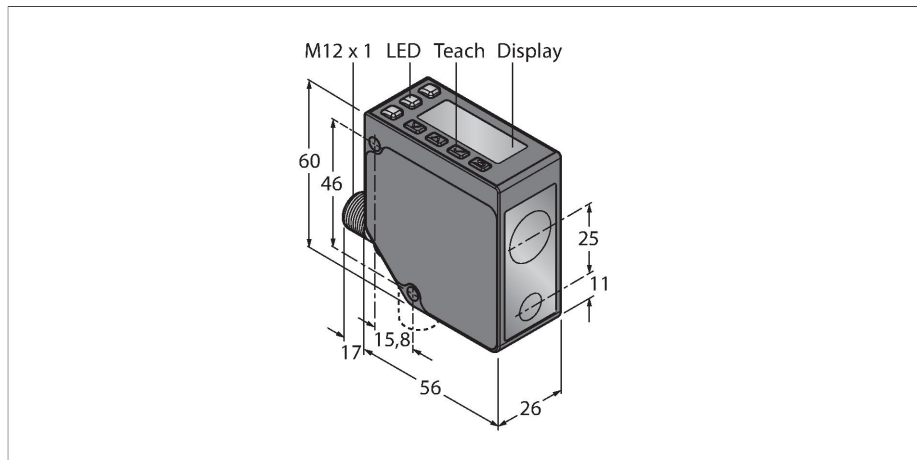


LE250DQ

Photoelectric Sensor – Laser Scanning System



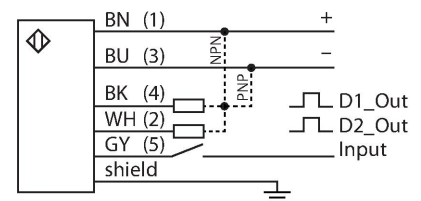
Technical data

Type	LE250DQ
ID	3094200
Optical data	
Function	Proximity switch
Operating mode	Triangulation
Light type	Red
Wavelength	650 nm
Laser class	▲ 2
Optical resolution	0.2 mm
Repeatability	0.1 mm
Range	100...400 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
Output function	PNP/NPN
Output 2	Switching output
Switching frequency	≤ 250 Hz
Readiness delay	≤ 2 s
Readiness delay	≤ 1000 ms
Response time typical	< 2 ms
Mechanical data	
Design	Rectangular, LE250
Dimensions	56 x 26 x 77 mm
Housing material	Metal, Zinc Alloy Die-Cast, Black

Features

- 2-line, 8-segment display
- Rotatable connector, male M12 × 1, 5-pin
- Range: 100...400 mm
- Laser class 2, red, 650 nm, acc. to IEC 60825-1:2007
- Resolution at 100 mm - 250 mm distance: < 0.02 mm
- Resolution at 250 mm - 400 mm distance: < 0.2 mm
- Operating voltage: 12...30 VDC
- Two switching outputs PNP/NPN configurable

Wiring diagram



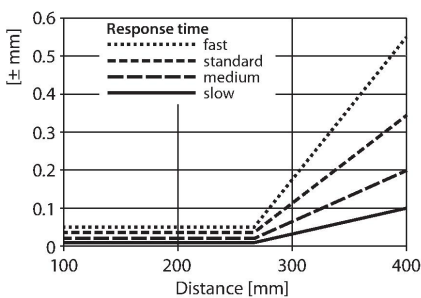
Functional principle

The laser distance sensors of the LE250 Series measure the distance to the object to 400 mm. The devices are set with buttons on the housing. The built-in display assists with the menu navigation and serves 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 measuring accuracy is 0.02 mm at a distance of 250 mm and 0.2 mm at a distance of 400 mm.

Technical data

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

Excess Gain Curve



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

Dimension drawing	Type	ID	
	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