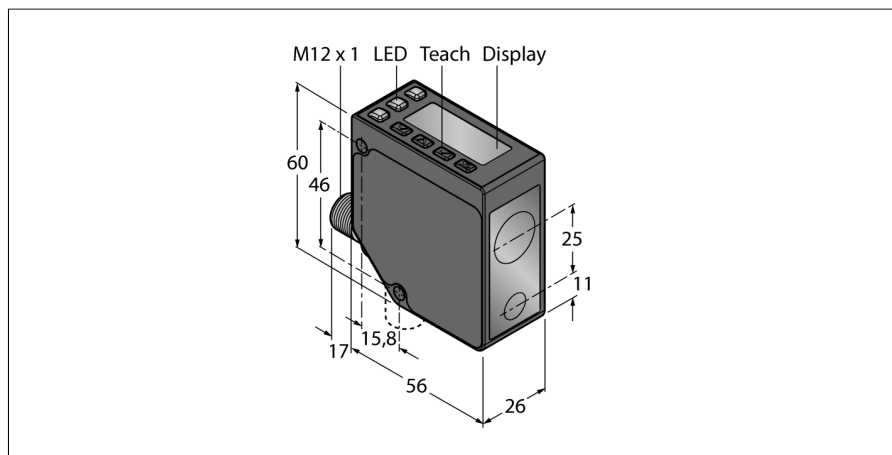


Photoelectric Sensor Diffuse-Mode Laser Sensor (Triangulation) With Switching Outputs LE250DC1Q



Type	LE250DC1Q
ID	3095393

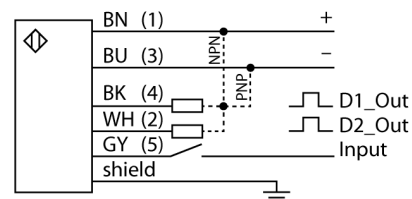
Optical data	
Function	Proximity switch
Operating mode	Triangulation
Light type	Red
Wavelength	650 nm
Laser class	▲ 1
Optical resolution	0.2 mm
Repeatability	0.1 mm
Range	100...400 mm
Ambient light immunity	5000 lux

Electrical data	
Operating voltage U_s	12...30 VDC
DC rated operating current I_s	≤ 70 mA
Short-circuit protection	yes
Reverse polarity protection	yes
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
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
Protection class	IP67

- 2-line, 8-segment display
- Rotatable connector, male M12 × 1, 5-pin
- Range: 100...400 mm
- Laser class 1, 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

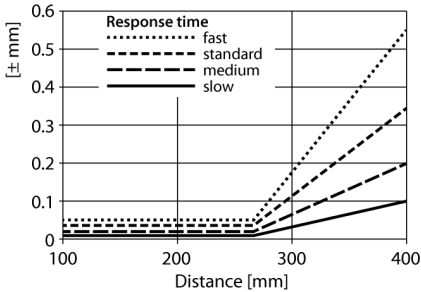
The laser distance sensors of the LE250 Series measure the distance to the object to 400 mm. The devices are set with buttons on the housing. The built-in display assists with the menu navigation and serves to display the measured distance. The switching output is reprogrammable and the analog output 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

Special features	keep/defer
Power-on indication	LED, Green
Switching state	LED, Yellow

Tests/approvals	
Approvals	CE, cULus listed

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.

Excess Gain Curve



Accessories

Type code	Ident no.		Dimension drawing
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	