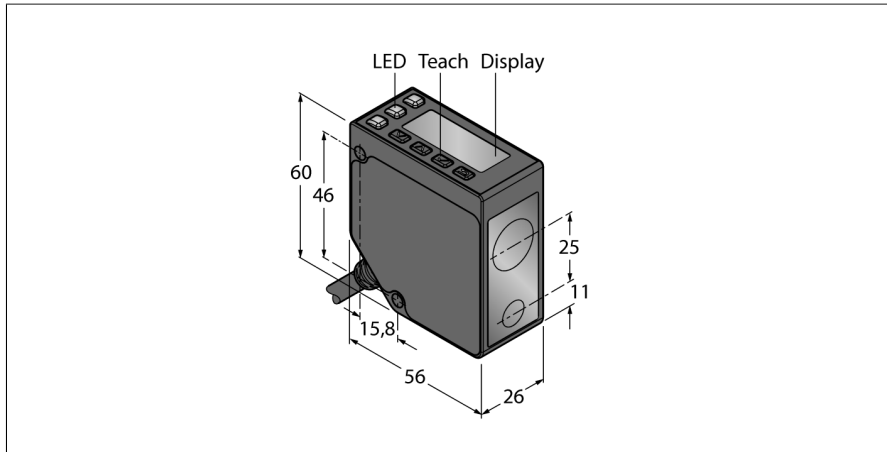
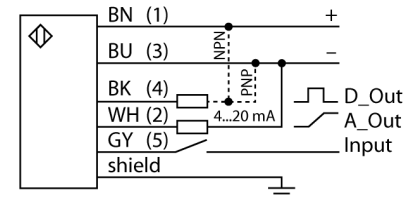


# Photoelectric Sensor Diffuse-Mode Laser Sensor (Triangulation) With Analog Output LE250I W/30



- 2-line, 8-segment display
- Cable, PVC, 9 m
- 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
- PNP/NPN-switching output, switchable
- Analog output: 4...20 mA

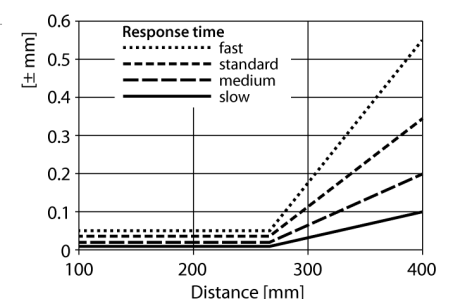
## Wiring Diagram



## 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.

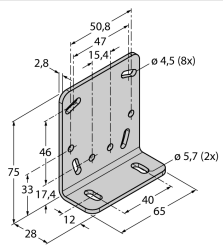
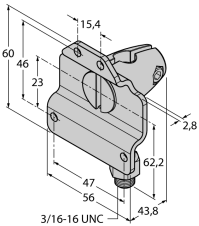
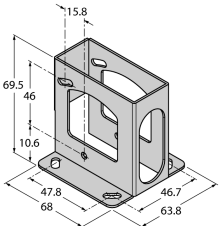
## Excess Gain Curve



|                                  |                     |
|----------------------------------|---------------------|
| Type                             | LE250I W/30         |
| ID                               | 3091688             |
| <b>Optical data</b>              |                     |
| 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           | 10,000 lux          |
| <b>Electrical data</b>           |                     |
| Operating voltage $U_s$          | 12...30 VDC         |
| DC rated operating current $I_s$ | ≤ 70 mA             |
| Short-circuit protection         | yes                 |
| Reverse polarity protection      | yes                 |
| Output function                  | NO contact, PNP/NPN |
| Output 2                         | Analog output       |
| Type of analog output            | 4...20 mA           |
| Current output                   | 4...20 mA           |
| Switching frequency              | ≤ 250 Hz            |
| Readiness delay                  | ≤ 2 s               |
| Readiness delay                  | ≤ 2000 ms           |
| Response time typical            | < 2 ms              |

|                       |                                   |
|-----------------------|-----------------------------------|
| Mechanical data       |                                   |
| Design                | Rectangular, LE250                |
| Housing material      | Metal, Zinc Alloy Die-Cast, Black |
| Lens                  | plastic, Polycarbonate            |
| Electrical connection | Cable, 9 m, PVC                   |
| Number of cores       | 5                                 |
| Ambient temperature   | -20...+55 °C                      |
| Storage temperature   | -30...+65°C                       |
| Protection class      | IP67                              |
|                       |                                   |
| Special features      | keep/defer                        |
| Power-on indication   | LED, Green                        |
| Switching state       | LED, Yellow                       |
|                       |                                   |
| Tests/approvals       |                                   |
| Approvals             | CE, cULus listed                  |

## 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               |  |