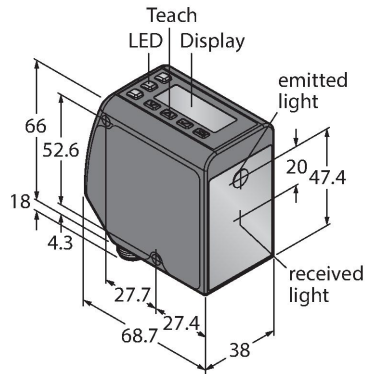


# LTF12UC2LDQ

## Photoelectric Sensor – Laser Scanning System



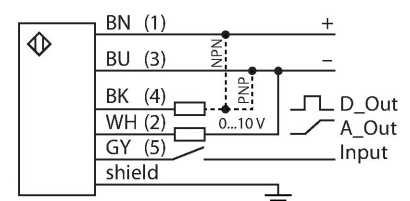
### Technical data

|                              |                     |
|------------------------------|---------------------|
| Type                         | LTF12UC2LDQ         |
| ID                           | 3094853             |
| <b>Optical data</b>          |                     |
| Function                     | Proximity switch    |
| Operating mode               | Time-of-Flight      |
| Light type                   | Red                 |
| Wavelength                   | 660 nm              |
| Laser class                  | ▲ 2                 |
| Optical resolution           | 3 mm                |
| Repeatability                | 1.5 mm              |
| Range                        | 50...12000 mm       |
| Ambient light immunity       | 40000 lux           |
| <b>Electrical data</b>       |                     |
| Operating voltage            | 12...30 VDC         |
| DC rated operational current | ≤ 85 mA             |
| Short-circuit protection     | yes                 |
| Reverse polarity protection  | yes                 |
| Output function              | NO contact, PNP/NPN |
| Output 2                     | Analog output       |
| Type of analog output        | 0...10 V            |
| Voltage output               | 0...10 V            |
| Switching frequency          | ≤ 250 Hz            |
| Readiness delay              | ≤ 2 s               |
| Readiness delay              | ≤ 2000 ms           |
| Response time typical        | < 1.5 ms            |
| <b>Mechanical data</b>       |                     |
| Design                       | Rectangular, LTF    |

### Features

- 2-line, 8-segment display
- M12 × 1 male connector, rotatable, 5-pin
- Range: 0.05...12 m
- Laser class 2, red, 660 nm, acc. to IEC 60825-1:2007
- Resolution: 0.3...3 mm
- Operating voltage: 12...30 VDC
- PNP/NPN-switching output, switchable
- Analog output: 0...10 V

### Wiring diagram



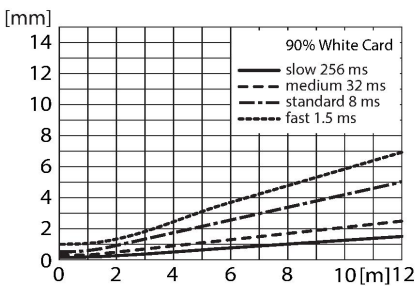
### Functional principle

The LTF laser sensors measure the distance to an object up to a range of 12 m. The settings are made via buttons on the housing. The built-in display assists with the menu navigation and serves to display the measured distance. The switching output is re-programmable 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 gray wire (PIN 5). The same wire can be used to operate two devices in the synch mode, which prevents mutual influence. The measuring accuracy can be obtained from the excess gain curve.

Technical data

|                       |                                   |
|-----------------------|-----------------------------------|
| Dimensions            | 77 x 26 x 56 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       |                                   |
| Vibration resistance  | acc. to IEC 60947-5-2             |
| Shock test            | acc. to IEC 60947-5-2             |
| Approvals             | CE                                |

Excess Gain Curve



Accessories

SMBLTFU

3094757

Protective housing, stainless steel, for sensors of the LTF series

SMBLTFL

3094756

Mounting bracket, rectangular, stainless steel, for sensors of the LTF 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 <a href="http://www.turck.com">www.turck.com</a> |
|                   | 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 <a href="http://www.turck.com">www.turck.com</a>   |

| Dimension drawing                                                                 | Type          | ID      |                                                                                                                                                                                                                                      |
|-----------------------------------------------------------------------------------|---------------|---------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
|  | 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 <a href="http://www.turck.com">www.turck.com</a> |
|  | 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 <a href="http://www.turck.com">www.turck.com</a>   |