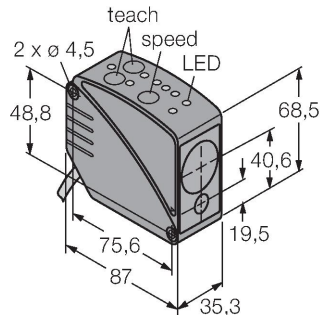


# LT3PU

## Photoelectric Sensor – Diffuse Mode Sensor Laser Running Time Meter



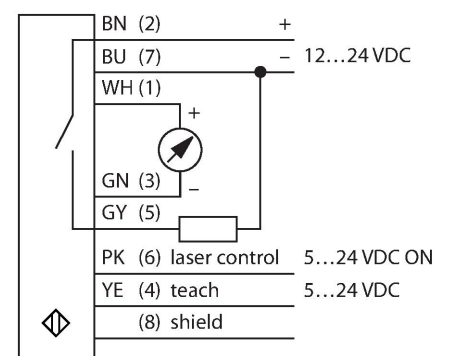
### Technical data

|                              |                               |
|------------------------------|-------------------------------|
| Type                         | LT3PU                         |
| ID                           | 3065508                       |
| <b>Optical data</b>          |                               |
| Function                     | Proximity switch              |
| Operating mode               | Time-of-Flight                |
| Light type                   | Red                           |
| Wavelength                   | 658 nm                        |
| Laser class                  | ▲ 2                           |
| Repeatability                | 1 mm                          |
| Range                        | 300...5000 mm                 |
| Ambient light immunity       | 5000 lux                      |
| <b>Electrical data</b>       |                               |
| Operating voltage            | 12...24 VDC                   |
| Residual ripple              | < 10 % U <sub>ss</sub>        |
| DC rated operational current | ≤ 100 mA                      |
| No-load current              | ≤ 108 mA                      |
| Short-circuit protection     | yes                           |
| Reverse polarity protection  | yes                           |
| Output function              | NO contact, PNP/Analog output |
| Type of analog output        | 0...10 V                      |
| Voltage output               | 0...10 V                      |
| Load resistance              | ≥ 2500 Ω                      |
| Switching frequency          | ≤ 1000 Hz                     |
| Readiness delay              | ≤ 1 s                         |
| Readiness delay              | ≤ 1000 ms                     |
| Response time typical        | < 1 ms                        |

### Features

- Cable, 2 m, 7-wire
- Indication of signal intensity
- Protection class IP67
- Measuring range (distance to white object): 5 m
- 3 response times adjustable for switching output
- Operating voltage: 12...24 VDC
- Hysteresis and measuring range independently adjustable
- Edge of the analog output invertible

### Wiring diagram



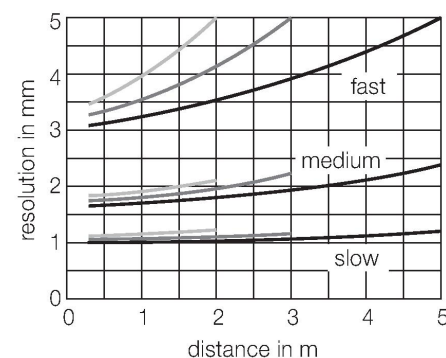
### Functional principle

This distance sensor uses pulsed time-of-flight technology and is thus extremely powerful. The laser pulses one million times per second. The microprocessor records the time required for each pulse to travel to the object and back to the sensor. Every millisecond, one thousand pulse times are averaged and the corresponding value is transferred to the output.

## Technical data

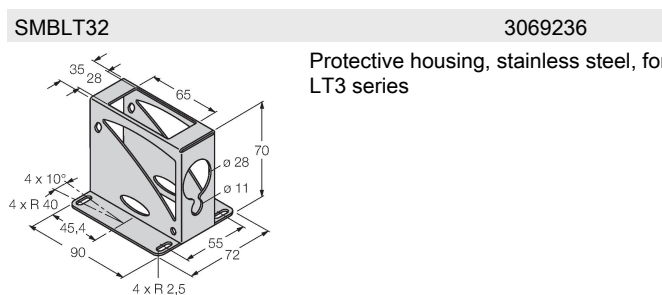
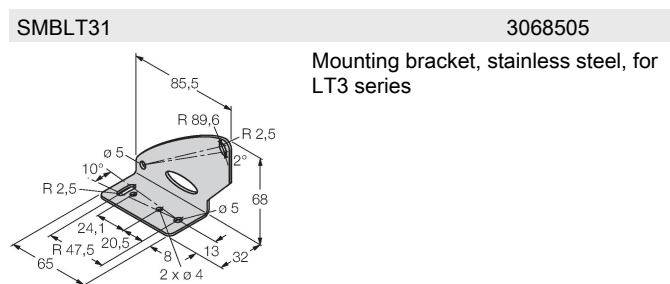
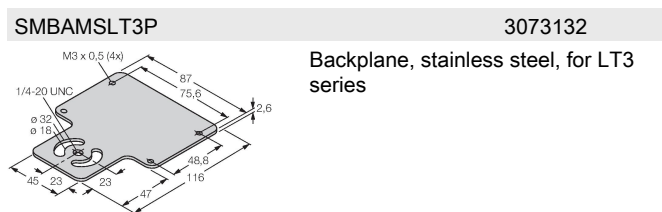
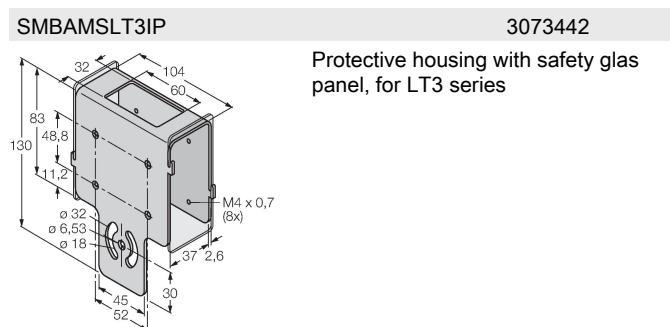
The sensor achieves its highest accuracy after a 30-min. warm-up period.

### Resolution in Dependence on Distance



| Mechanical data        |                                          |
|------------------------|------------------------------------------|
| Design                 | Rectangular, LT3                         |
| Dimensions             | 87 x 35.3 x 68.5 mm                      |
| Housing material       | Plastic, ABS, Black                      |
| Lens                   | plastic, Acrylic                         |
| Electrical connection  | Cable, 2 m, PVC                          |
| Number of cores        | 8                                        |
| Core cross-section     | 0.34 mm <sup>2</sup>                     |
| Ambient temperature    | 0...+50 °C                               |
| Relative humidity      | 90 %                                     |
| Protection class       | IP67                                     |
| Special features       | Laser<br>Teach input                     |
| Power-on indication    | LED, Green                               |
| Switching state        | LED, Yellow                              |
| Error indication       | LED                                      |
| Excess gain indication | LED, red                                 |
| Tests/approvals        |                                          |
| MTTF                   | 15 years acc. to SN 29500 (Ed. 99) 40 °C |
| Approvals              | CE, cURus                                |

## Accessories



**SMBLT3IP****3070973**Protective housing, stainless steel, for  
LT3 series