

# LT3PI

## Photoelectric Sensor – Diffuse Mode Sensor

### Laser Running Time Meter



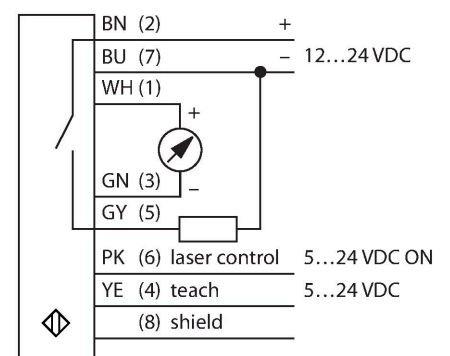
#### Technical data

Type	LT3PI
ID no.	3065514
<b>Optical data</b>	
Function	Proximity switch
Operating mode	Runtime
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	4...20 mA
Current output	4...20 mA
Load resistance	≤ 1000 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

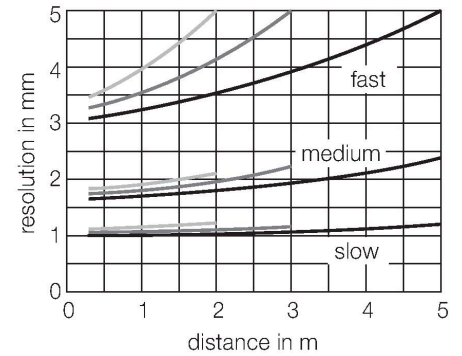
This distance sensor uses pulsed time-of-flight technology and is thus extremely powerful. The laser pulses one million times per second. The microprocessor records the time required for each pulse to travel to the object and back to the sensor. Every millisecond, one thousand pulse times are averaged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

## Technical data

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

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 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

## Resolution in Dependence on Distance

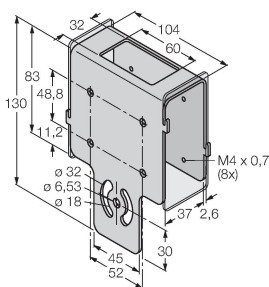


## Accessories

### SMBAMSLT3IP

3073442

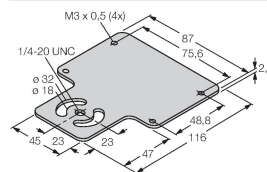
Protective housing with safety glass panel, for LT3 series



### SMBAMSLT3P

3073132

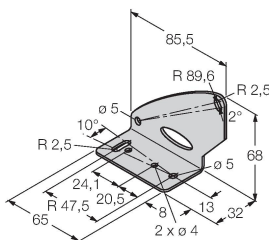
Backplane, stainless steel, for LT3 series



### SMBLT31

3068505

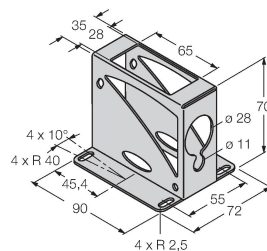
Mounting bracket, stainless steel, for LT3 series



### SMBLT32

3069236

Protective housing, stainless steel, for LT3 series



SMBLT3IP

3070973

Protective housing, stainless steel, for  
LT3 series