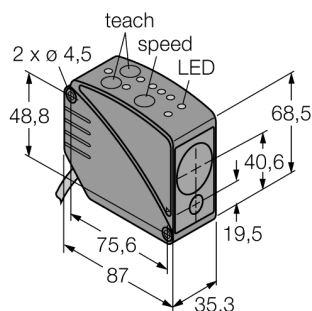


Photoelectric Sensor Diffuse-Mode Laser Sensor (Runtime Measurement) With Switching Outputs LT3BD W/30



Type	LT3BD W/30
ID	3065518

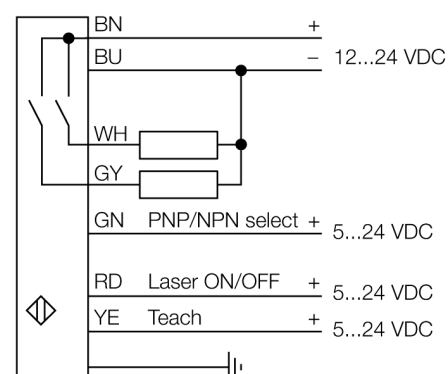
Optical data	
Function	Proximity switch
Operating mode	Time-of-Flight
Light type	Red
Wavelength	658 nm
Laser class	2
Repeatability	1 mm
Range	300...5000 mm
Ambient light immunity	5000 lux

Electrical data	
Operating voltage U_s	12...24 VDC
Residual ripple	< 10 % U_s
DC rated operating current I_s	≤ 100 mA
No-load current I_0	≤ 108 mA
Short-circuit protection	yes
Reverse polarity protection	yes
Output function	2 x NO contact, PNP/NPN
Switching frequency	≤ 1000 Hz
Readiness delay	≤ 1 s
Readiness delay	≤ 1000 ms
Response time typical	< 1 ms

Mechanical data	
Design	Rectangular, LT3
Housing material	Plastic, ABS, Black
Lens	plastic, Acrylic
Electrical connection	Cable, 9 m, PVC
Number of cores	8
Core cross-section	0.34 mm ²
Ambient temperature	0...+50 °C
Protection class	IP67

- Cable, 7-wire, 9 m
- 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
- Two independently adjustable switching ranges

Wiring Diagram



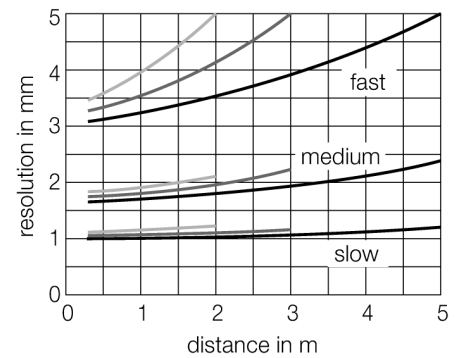
Functional principle

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.

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

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

Resolution in Dependence on Distance



Accessories

Type code	Ident no.		Dimension drawing
SMBAMSLT3IP	3073442	Protective housing with safety glas 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	