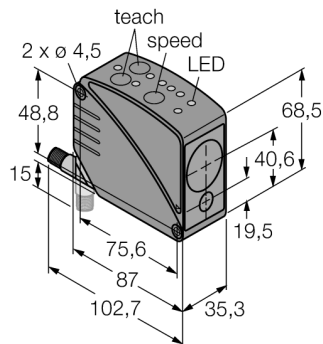


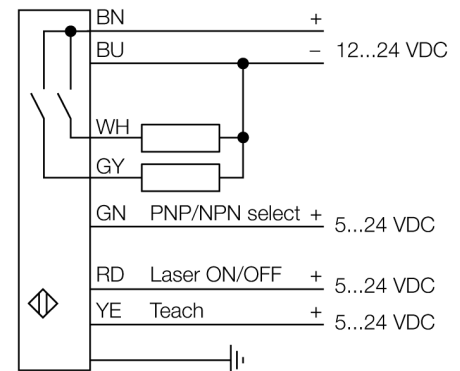
**Photoelectric sensor
diffuse mode sensor
laser running time meter
LT3BDQ**



Type code	LT3BDQ
Ident no.	3065516
Operating mode	Diffuse mode laser sensor (time-of-flight)
Light type	red
Wavelength	658 nm
Laser class	▲ 2
Repeatability	1 mm
Range	300...5000 mm
Ambient temperature	0...+50 °C
Operating voltage	12...24VDC
Residual ripple	< 10 % U _s
DC rated operational current	≤ 100 mA
No-load current I ₀	≤ 108 mA
Short-circuit protection	yes
Reverse polarity protection	yes
Output function	2x NO, PNP/NPN
Switching frequency	≤ 1000 Hz
Readiness delay	≤ 1 s
Design	rectangular, LT3
Dimensions	87 x 35.3 x 68.5 mm
Housing material	plastic, ABS, black
Lens	plastic, acrylic
Connection	male, M12 x 1
Protection class	IP67
MTTF	15 years acc. to SN 29500 (Ed. 99) 40 °C
Power-on indication	LED green
Switching state	LED yellow
Error indication	LED
Excess gain indication	LED red

- Male M12 x 1, 8-pin
- 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

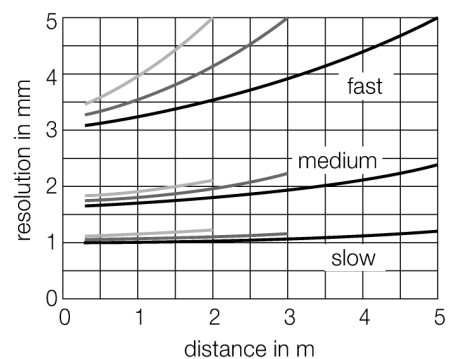


Functional principle

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.

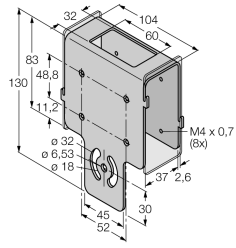
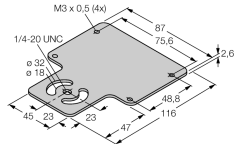
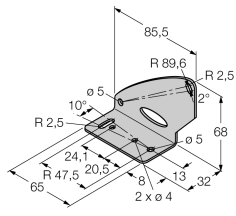
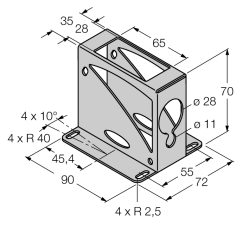
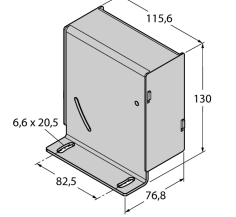
The sensor achieves its highest accuracy after a 30-min. warm-up period.

Resolution versus distance



**Photoelectric sensor
diffuse mode sensor
laser running time meter
LT3BDQ**

Accessories

Type code	Ident no.	Description	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	

Wiring accessories

Type code	Ident no.	Description	Dimension drawing
MQDC-806	3057593	Anschlusskabel, PVC, geschirmt, M12 x 1 Kupplung 8-polig auf offenes Ende	