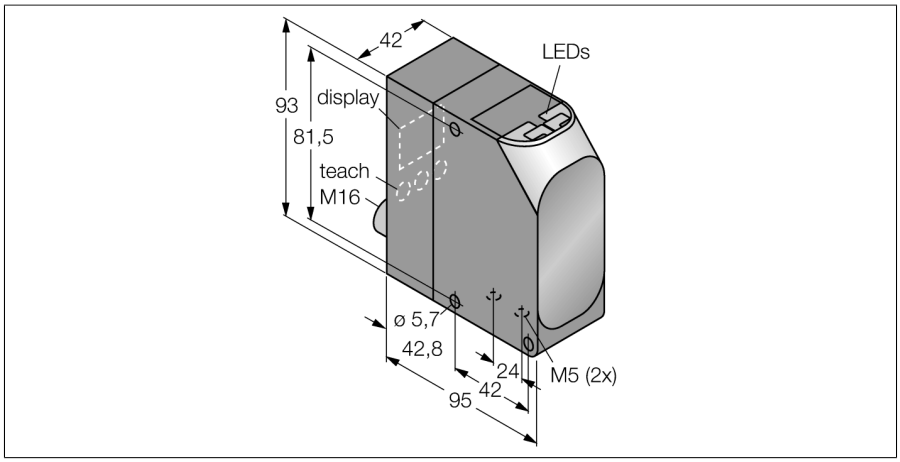
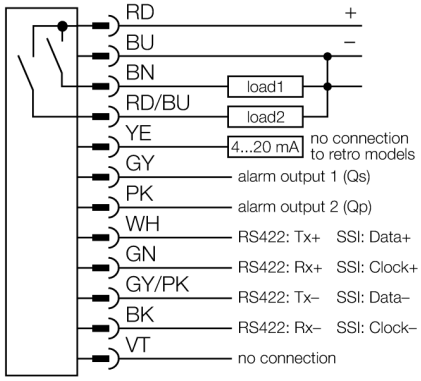
Photoelectric Sensor
Retroreflective Laser Sensor (Runtime Measurement) With Switching Outputs
LT7PLVQ



- Male M16 x 0.75, 12-pin
- Indication of signal intensity
- Laser class 1, infrared, 900 nm
- Alignment aid during programming, laser class 2, visible red, 650 nm
- LCD display
- Operating voltage: 18…30 VDC
- Two independently adjustable switching outputs
- Alarm output
- Serial interface RS422 or SSI compatible

Type	LT7PLVQ
ID	3073440
Optical data	
Function	Retroreflective Sensor
Operating mode	Time-of-Flight
Reflector included in delivery	yes
Light type	IR
Wavelength	900 nm
Laser class	⚠ 1
Repeatability	4 mm
Range	500…250000 mm
Electrical data	
Operating voltage U_B	18…30 VDC
Residual ripple	< 10 % U_{ss}
Short-circuit protection	yes
Communication protocol	RS422 SSi
Output function	2 x NO contact, PNP
Switching frequency	≤ 400 Hz
Response time typical	< 12 ms
Mechanical data	
Design	Rectangular, LT7
Housing material	Plastic, ABS, Black
Lens	plastic, Acrylic
Electrical connection	Connector, M12 × 1, PVC
Number of cores	12
Ambient temperature	-10…+50 °C
Storage temperature	-30…+75°C
Protection class	IP67

Wiring Diagram



Functional principle

The LT7 uses pulsed time-of-flight technology and is equipped with an IR measuring laser (laser class 1) and a visible red pilot laser (laser class 2) as an alignment aid. 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.

Diagram

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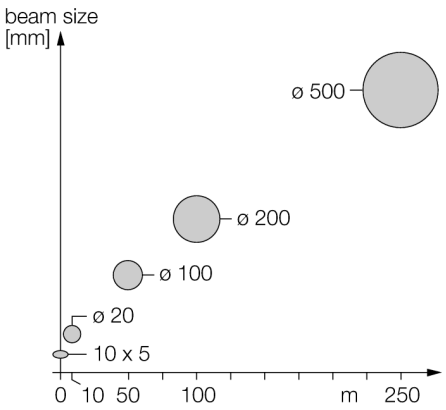
Special features	Laser Pushbutton
Power-on indication	LED, Green
Switching state	LED, Yellow

Tests/approvals	
Approvals	CE



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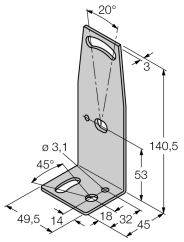
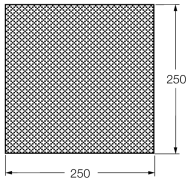
Accessories

Type code	Ident no.		Dimension drawing
SMBLT7F	3073712	Mounting accessories for SMBLT7, for fine adjustment of the LT7, cold rolled steel	
SMBLT7	3073711	Mounting bracket, stainless steel, for LT7	

Function accessories

Type code	Ident no.		Dimension drawing
BRT-250	3073713	Special rectangular reflector for LT7PLVQ sensor, max. range 50 m, aluminium, temperature -20… +50 °C	
BRT-540	3073714	Special rectangular reflector for LT7PLVQ sensor, material aluminium, ambient temperature -20 … +50 °C	
BRT-700	3073715	Special rectangular reflector for LT7PLVQ sensor, max. range 250 m, aluminium, temperature -20… +50 °C	
BRT-TVHG-8X10P	3069119	Reflective foil, self-adhesive, cuttable, highly reflective, 203 x 254 mm	

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