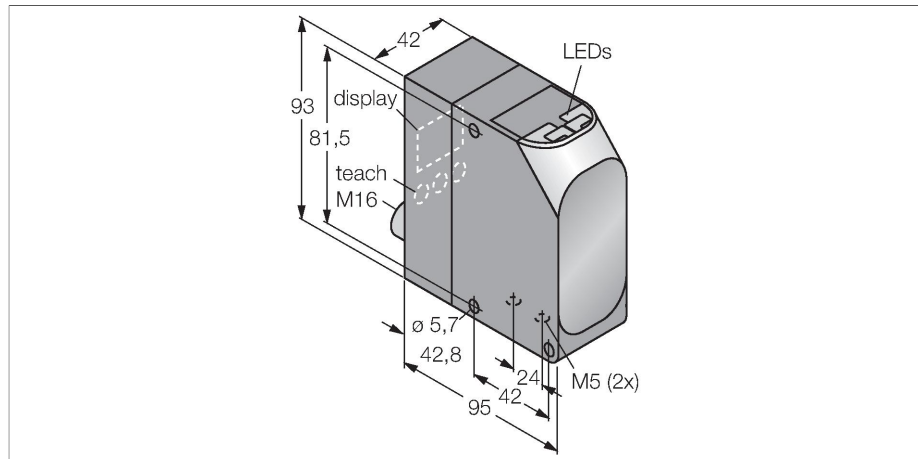


# LT7PLVQ

## Photoelectric Sensor – Retroreflective Sensor

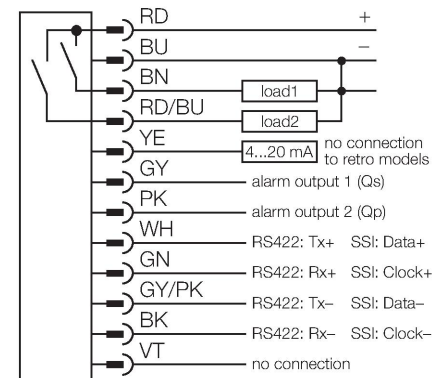
### Laser Running Time Meter



#### Features

- 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

#### 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.

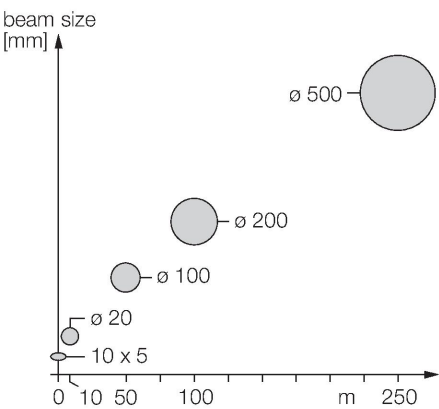
#### Technical data

|                                |                              |
|--------------------------------|------------------------------|
| Type                           | LT7PLVQ                      |
| ID                             | 3073440                      |
| <b>Optical data</b>            |                              |
| 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              |
| <b>Electrical data</b>         |                              |
| Operating voltage              | 18...30 VDC                  |
| Residual ripple                | < 10 % U <sub>ss</sub>       |
| Short-circuit protection       | yes                          |
| Communication protocol         | RS422<br>SSi                 |
| Output function                | 2 normally open contact, PNP |
| Switching frequency            | ≤ 400 Hz                     |
| Response time typical          | < 12 ms                      |
| <b>Mechanical data</b>         |                              |
| Design                         | Rectangular, LT7             |
| Dimensions                     | 95 x 42 x 93 mm              |
| Housing material               | Plastic, ABS, Black          |
| Lens                           | plastic, Acrylic             |
| Electrical connection          | Connector, M12 × 1, PVC      |

Technical data

|                     |                     |
|---------------------|---------------------|
| Number of cores     | 12                  |
| Ambient temperature | -10...+50 °C        |
| Storage temperature | -30...+75 °C        |
| Protection class    | IP67                |
| Special features    | Laser<br>Pushbutton |
| Power-on indication | LED, Green          |
| Switching state     | LED, Yellow         |
| Tests/approvals     |                     |
| Approvals           | CE                  |

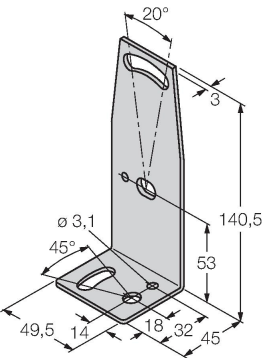
Diagram



Accessories

|                                                                                    |         |
|------------------------------------------------------------------------------------|---------|
| SMBLT7F                                                                            | 3073712 |
| Mounting accessories for SMBLT7, for fine adjustment of the LT7, cold rolled steel |         |

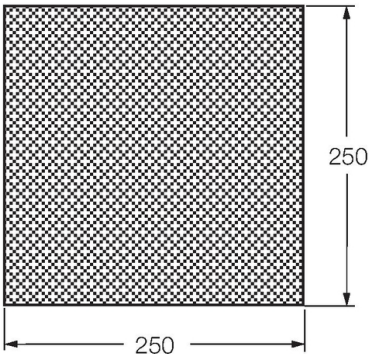
|                                            |         |
|--------------------------------------------|---------|
| SMBLT7                                     | 3073711 |
| Mounting bracket, stainless steel, for LT7 |         |



Accessories

| Dimension drawing | Type        | ID      |                                                                                 |
|-------------------|-------------|---------|---------------------------------------------------------------------------------|
|                   | MQDC-1210RA | 3074028 | Anschlusskabel, Kupplung, abgewinkelt, M16 x 0.75, 12-polig, Länge: 3.05 m, PVC |
|                   | MQDC-1210ST | 3074174 | Anschlusskabel, Kupplung, gerade, M16 x 0.75, 12-polig, Länge: 3.05 m, PVC      |

Accessories

| Dimension drawing                                                                 | Type           | ID      |                                                                                                          |
|-----------------------------------------------------------------------------------|----------------|---------|----------------------------------------------------------------------------------------------------------|
|  | 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                                |