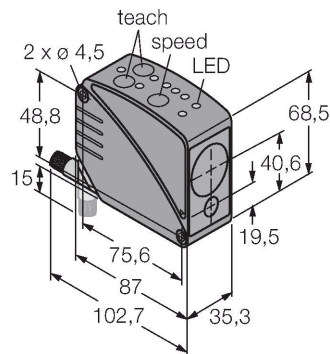


LT3PILVQ

Photoelectric Sensor – Retroreflective Sensor

Laser Running Time Meter



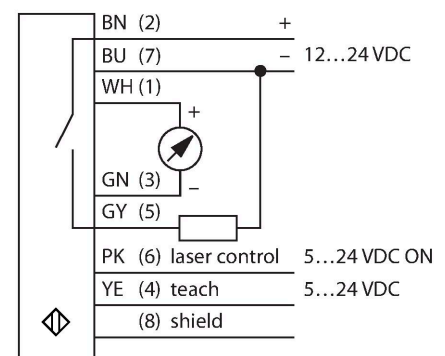
Features

- Male M12 × 1, 8-pin
- Indication of signal intensity
- Protection class IP67
- BRT-TVHG-8X10P highly reflective foil, incl. in delivery
- Measuring range with according reflector foil: 50 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

Technical data

| | |
|--------------------------------|-------------------------------|
| Type | LT3PILVQ |
| ID no. | 3067280 |
| Optical data | |
| Function | Retroreflective Sensor |
| Operating mode | Runtime |
| Reflector included in delivery | yes |
| Light type | Red |
| Wavelength | 658 nm |
| Laser class | ▲ 1 |
| Repeatability | 4.5 mm |
| Range | 500...50000 mm |
| Ambient light immunity | 5000 lux |
| Electrical data | |
| Operating voltage | 12...24 VDC |
| Residual ripple | < 10 % U _{ss} |
| 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 |

Wiring diagram



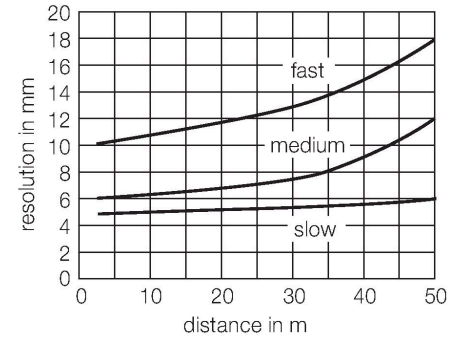
Functional principle

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.

Technical data

| | |
|------------------------|--|
| Response time typical | < 1 ms |
| Mechanical data | |
| Design | Rectangular, LT3 |
| Dimensions | 87 x 35.3 x 68.5 mm |
| Housing material | Plastic, ABS, Black |
| Lens | plastic, Acrylic |
| Electrical connection | Connectors, M12 x 1, PVC |
| Number of cores | 8 |
| 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 |

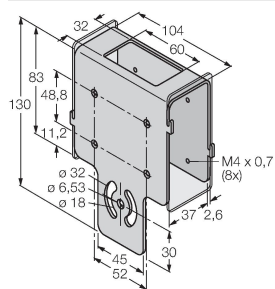
Resolution in Dependence on Distance



Accessories

SMBAMSLT3IP

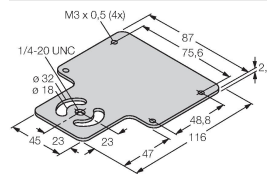
3073442



Protective housing with safety glass panel, for LT3 series

SMBAMSLT3P

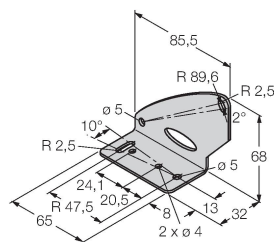
3073132



Backplane, stainless steel, for LT3 series

SMBLT31

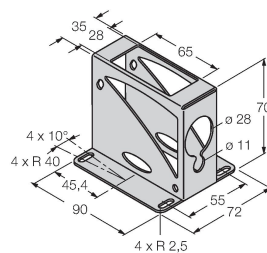
3068505



Mounting bracket, stainless steel, for LT3 series

SMBLT32

3069236

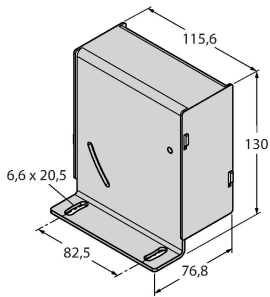


Protective housing, stainless steel, for LT3 series


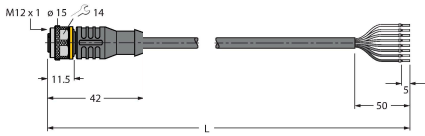
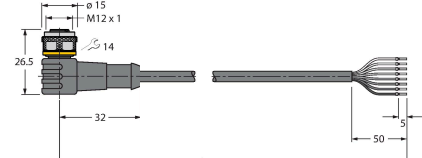

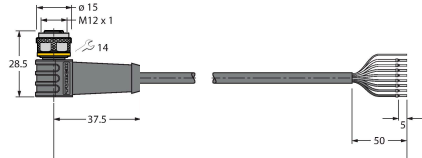
SMBLT3IP

3070973

Protective housing, stainless steel, for LT3 series



Accessories

| Dimension drawing | Type | ID no. | |
|---|-------------|---------|--|
|  | MQDC-806 | 3057593 | Connection cable, PVC, shielded, M12 x 1 female, 8-pin to open end |
|  | RKC8T-2/TEL | 6625130 | Connection cable, M12 female, straight, 8-pin, cable length: 2 m, jacket material: PVC, black; cULus approval; other cable lengths and qualities available, see www.turck.com |
|  | WKC8T-2/TEL | 6625133 | Connection cable, M12 female connector, angled, 8-pin, cable length: 2 m, jacket material: PVC, black; cULus approval; other cable lengths and qualities available, see www.turck.com |
|  | RKS8T-2/TEL | 6625446 | Connection cable, M12 female connector, straight, 8-pin, cable length: 2 m, sheath material: PVC, black; shielded; cULus approval; other cable lengths and qualities available, see www.turck.com |
|  | WKS8T-2/TEL | 6625449 | Connection cable, M12 female connector, angled, 8-pin, cable length: 2 m, sheath material: PVC, black; shielded; cULus approval; other cable lengths and qualities available, see www.turck.com |

Accessories

| Dimension drawing | Type | ID no. | |
|-------------------|----------------|---------|---|
| | BRT-TVHG-8X10P | 3069119 | Reflective foil, self-adhesive, cuttable, highly reflective, 203 x 254 mm |