

optoNCDT ILR1171-125

Fast laser distance sensor for outdoor applications

- Measuring range up to 270 m
- High measuring rate of 40 kHz
- Robust industrial design with IP67 housing
- Easy integration into existing systems
- Measurement on static and dynamic targets



| Model | | ILR1171-125 |
|---------------------------------|-------------------------------|--|
| Article number | | 7112027 |
| Measuring range ^[1] | Black 10 % | 70 m |
| | Gray 40 % | 100 m |
| | White 80 % | 125 m |
| | Reflector film ^[2] | 270 m |
| Start of measuring range | | 0.2 m ^[3] |
| Measuring rate | | 40 KHz |
| Resolution | | 1 mm |
| Linearity | | < ±60 mm ^[4] |
| Repeatability ^[5] | | <25 mm |
| Temperature stability | | < 20 ppm / K |
| Light source | | Semiconductor laser < 1 mW, 905 nm (red) |
| Laser class | | Class 1 in accordance with IEC 60825-1: 2022-07 |
| Permissible ambient light | | 50,000 lx |
| Supply voltage | | 10 ... 30 VDC |
| Power consumption | | < 3 W (24 V) |
| Signal input | | Trigger |
| Digital interface | | RS232 / RS422 |
| Analog output | | 4 ... 20 mA (16 bit, freely scalable within the measuring range) |
| Switching output | | Q1 / Q2 (configurable); trigger |
| Connection | | Supply/signal: 12 pin M12 screw/plug connection |
| Mounting | | Mounting holes |
| Temperature range | Storage | -40 ... +70 °C (non-condensing) |
| | Operation | -20 ... +60 °C (non-condensing) |
| Shock (DIN EN 60068-2-29) | | 30 g / 6 ms in 6 directions, 3 shocks each |
| Vibration (DIN EN 60068-2-6) | | 1 g / 10 ... 2000 Hz in 3 axes, 2 cycles each |
| Protection class (DIN EN 60529) | | IP67 |
| Material | | Aluminum housing |
| Weight | | approx. 140 g |
| Control and indicator elements | | 2x LEDs for power and signal |
| Special features | | Measurement-specific operating modes |

^[1] Depends on the reflectivity of the target, ambient light interference and atmospheric conditions

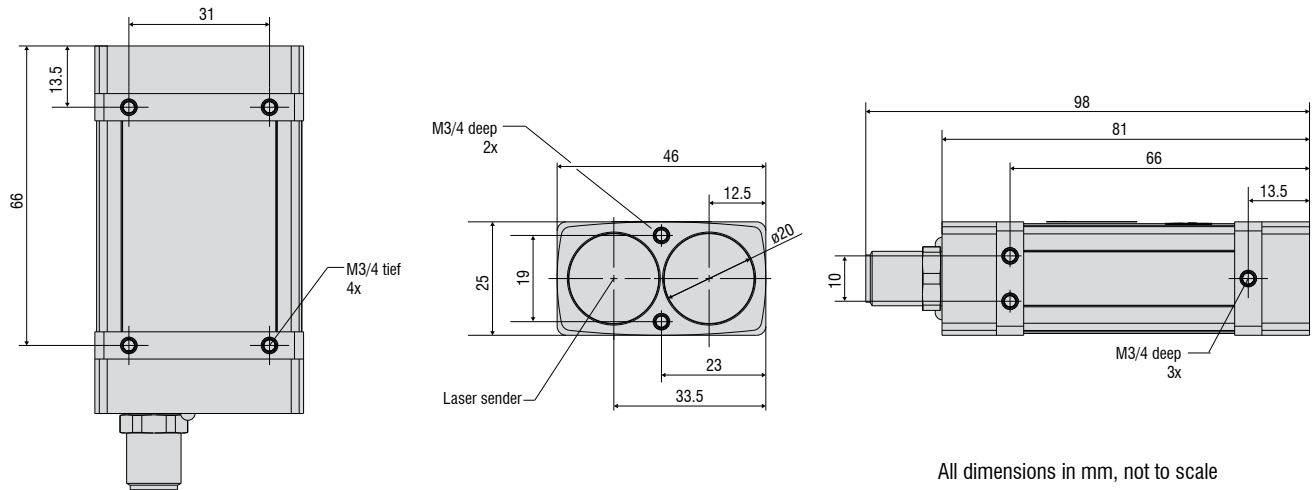
^[2] ILR-RF250 reflector film 250 x 250 mm; art. 7966001

^[3] 0.5 m for measurement with reflector film

^[4] Linearity in the ranges of ≤ 1 m and ≥ 70 m is ±100 mm

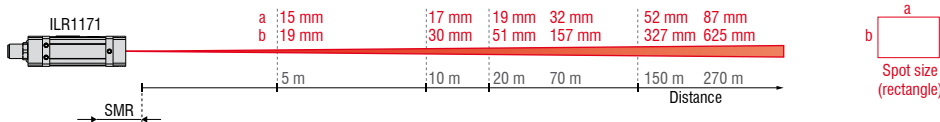
^[5] Repeatability in the ranges ≤ 1 m and ≥ 70 m is ±50 mm

Dimensions



All dimensions in mm, not to scale

Spot diameter



Accessories

| Connection | Interface modules | Connection cables | Sensor | Accessories |
|---|---|---|--------|---|
| Supply/PLC Power supply unit PS2031 Art. no.: 2420096 | | Supply and output cable Art. no.: 29011401 (2 m) 29011402 (5 m) 29011403 (10 m) | | Reflector 250 x 250 mm Art. no.: 7966001 |
| Digital output/Ethernet | IF2001/USB Art. no.: 2213025 IF1032/ETH Art. no.: 2420066 IC2001/USB Art. no.: 2213041 | | | |

