



More Precision

optoNCDT ILR // Laser distance sensors



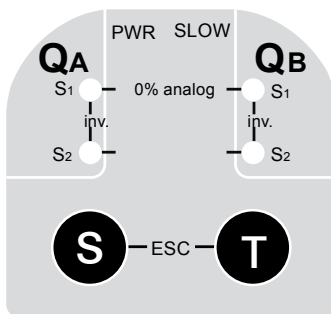
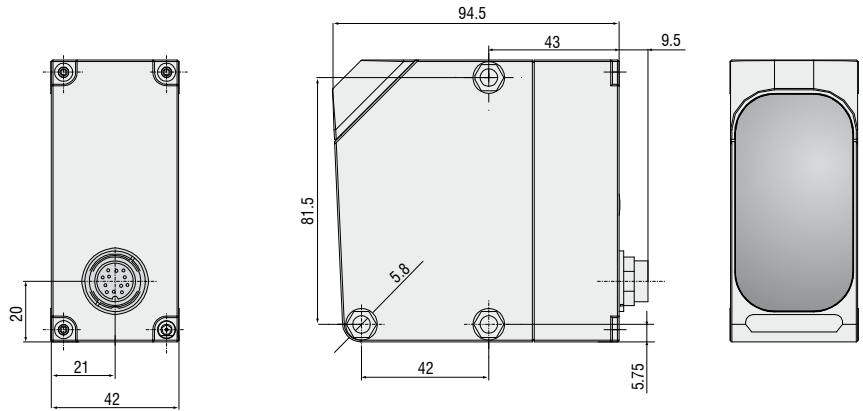


- Measuring range up to 10m on diffuse reflecting targets
- Short response time
- Excellent price-performance ratio
- Fast sensor set configuration via touch keys

Gaging sensors of the series optoNCDT 1020/1100/1150 are designed for non-contacting measurements at distances of up to 10m. These measurements are required for position determination, attendance checking, type classification and for machine control in numerous fields of application.

Precise sensor alignment

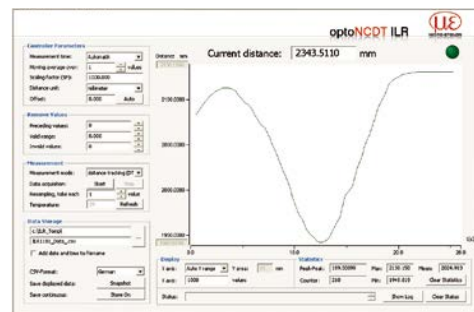
The aiming laser can be turned on for accurate alignment of the sensor with the measurement object. For mounting the sensor a mounting bracket and a fine adjuster are available as accessories, which simplify the precise alignment of the sensor to the measurement object.



ILR1020: Limit switch programming via touch keys



ILR1100/ILR1150: Limit switch programming via software




| Model | | ILR1020-6 | ILR1100-6 | ILR1150-10 |
|-------------------------------------|-----------------|--|---|-------------------------|
| Measuring range | black 6% | 0.2 ... 2.5m | 0.5 ... 2m | 0.5 ... 3m |
| | grey 10% | 0.2 ... 6m | 0.5 m ... 4m | 0.5 ... 7m |
| | white 90% | 0.2 ... 6m | 0.5 m ... 6m | 0.5 ... 10m |
| Linearity | | ±40mm | ±10mm | ±8mm |
| Resolution | | 1 ... 5mm | 0.1mm | 0.1mm |
| Repeatability | | ±10/±15mm ¹⁾ | ±5mm | ±4mm |
| Response time | | 80/13ms ¹⁾ | 12ms | 12ms |
| Laser class | measuring laser | IR 905nm, laser class 1 | | IR 900nm, laser class 1 |
| | sighting laser | red 650nm, laser class 2 | | |
| Operation temperature ²⁾ | | -10° ... +50°C; -20° ... +50°C in continuous operation (humidity 5 - 95%, no condensation) | | |
| Storage temperature | | -30° ... +75°C | | |
| Limit outputs | | QA/QB (max. 100 mA) | | |
| Switching points | | free adjustable (teach in) | adjustable in 1-mm-steps | |
| Switching hysteresis | | 30mm | min. 20mm (adjustable) | min. 10mm (adjustable) |
| Plausibility output | | - | QP (max. 50mA) | |
| Service output | | - | QS (max. 50mA) | |
| Serial interface | | - | RS422 (2.9ms at 57.6kBaud) SSI - compatible (GRAY/BINÄR adjustable) (SSI cycle 80µs) | |
| Bus interface | | - | Profibus or DeviceNet via respective gateway (accessory) | |
| Analog output | | | 4 - 20mA | |
| Temperature stability | | <1.2mm/°C | <0.5mm/°C | <±5mm absolute |
| Supply | | | 18 - 30 VDC | |
| Max. consumption | | | <3W at 24V | |
| Connection | | 5-pin connector M12 | 12-pin connector M16 | |
| Protection class | | | IP 67 | |
| Material (housing) | | | ABS shock resistant | |
| Vibration | EN 60947-5-2 | 10 - 55 Hz, amplitude 1.5mm, period 5min. at resonant frequency or 55Hz, stress time 30min. per axis | | |
| Shock | EN 60947-5-2 | acceleration 30g, pulse duration 11ms, half sinusoid, 3 shocks/axis | | |
| Weight | | appr. 200g | appr. 230g | |
| Accessoires | | | page 14 - 15 | |

All data regarding accuracy and distance are based on the specified surface at constant ambient conditions and with a minimum operating time of 15 minutes.

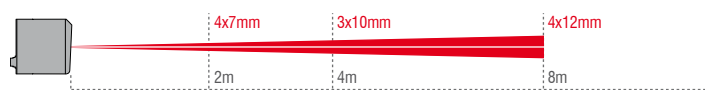
¹⁾ slow/fast

²⁾ when crossing 0°C an additional heating may be required

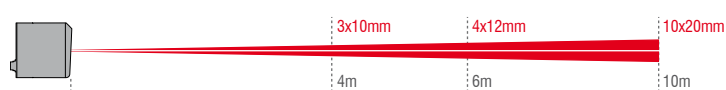
| |
|---|
|  |
| Operating Mode Laser Class 1 (Infrared) |
| Setup Mode Laser Class 2 (Visible - Red) Do not stare into beam λ: 650 nm t _p : 0,25 µs; T: 2,5 µs P _{max} : 3 mW |
| EN 60825-1: 10/2003 |

optoNCDT ILR 1020/1100/1150 use a semiconductor class 1 laser (operating mode) and a semiconductor class 2 laser (setup mode).
With these classes no protection is needed.

Spot diameter ILR1020



Spot diameter ILR1100/1150



High performance sensors made by Micro-Epsilon



Sensors and systems for displacement and position



Sensors and measurement devices for non-contact temperature measurement



2D/3D profile sensors (laser scanner)



Optical micrometers, fibre optic sensors and fibre optics



Color recognition sensors, LED analyzers and color online spectrometer



Measurement and inspection systems