



More Precision

optoNCDT ILR // Laser distance sensors



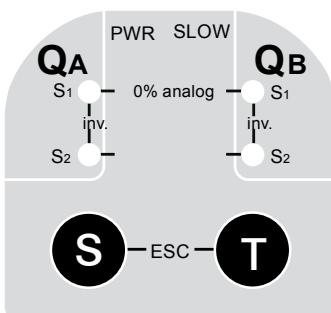
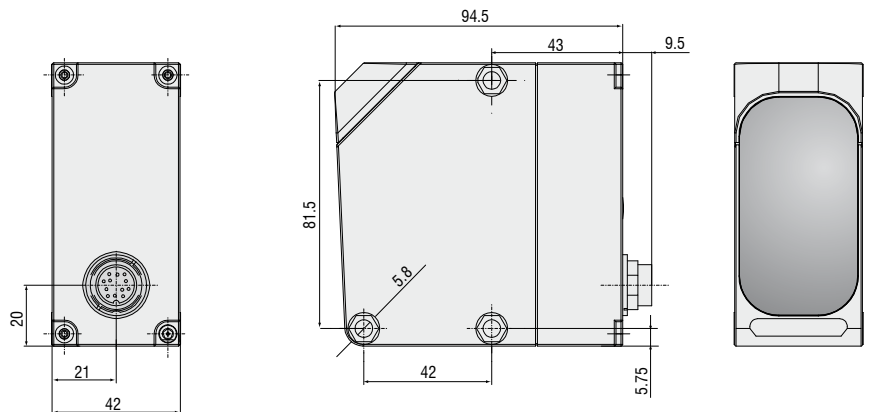


- Measuring range up to 10m on diffuse reflecting targets
- Short response time
- Excellent price-performance ratio
- Fast sensor set configuration via touch keys

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

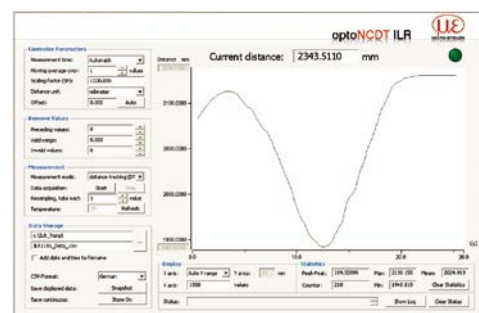
The aiming laser can be turned on for accurate alignment of the sensor with the measurement object. For mounting the sensor a mounting bracket and a fine adjuster are available as accessories, which simplify the precise alignment of the sensor to the measurement object.



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)	
Analogue 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.

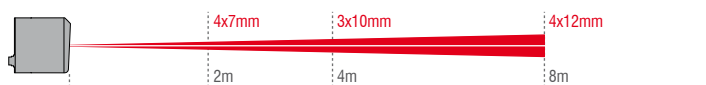
¹⁾ slow/fast

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

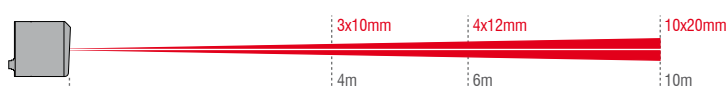

Operating Mode Laser Class 1 (Infrared)
Setup Mode Laser Class 2 (Visible - Red) Do not stare into beam λ: 650 nm t _p : 0,25 µs; T: 2,5 µs P _{max} : 3 mW
EN 60825-1. 10/2003

optoNCDT ILR 1020/1100/1150 use a semi-conductor 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



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Sensors and systems for displacement and position



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