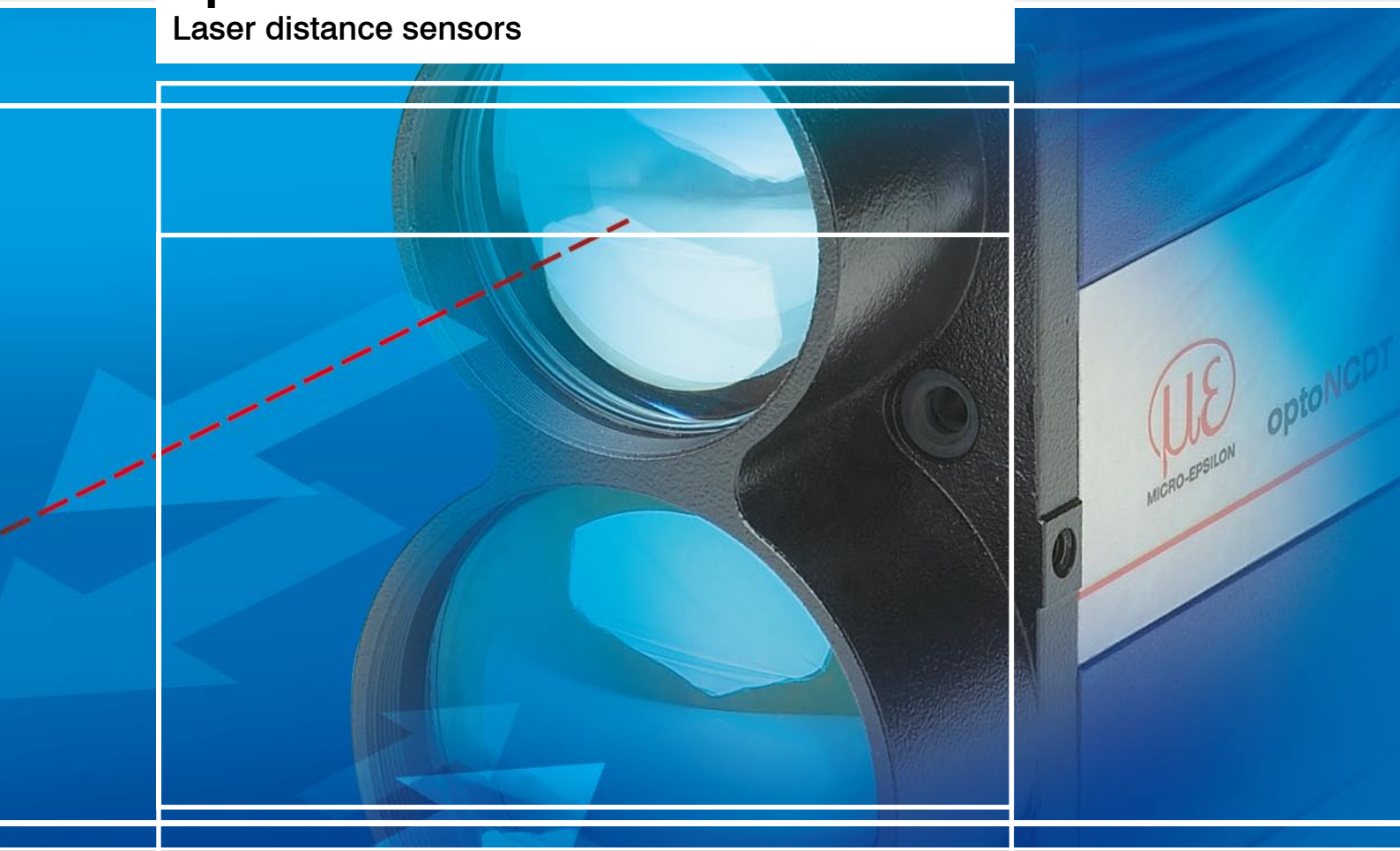
MICRO-EPSILON

More Precision.

optoNCDT ILR

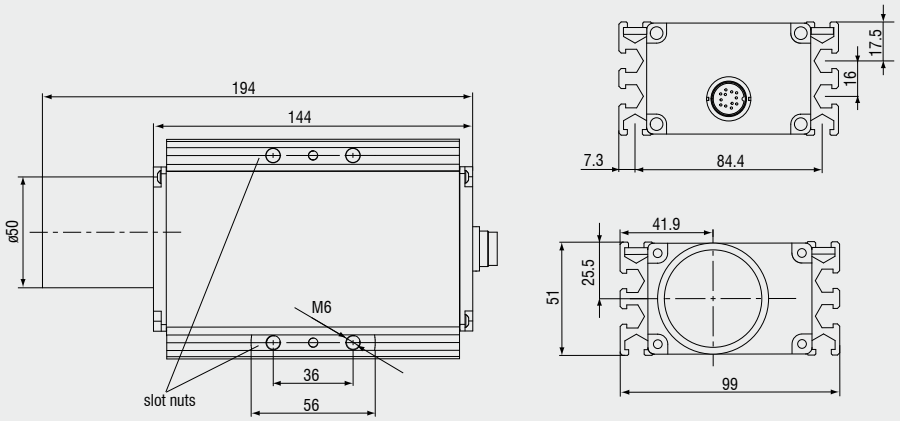
Laser distance sensors

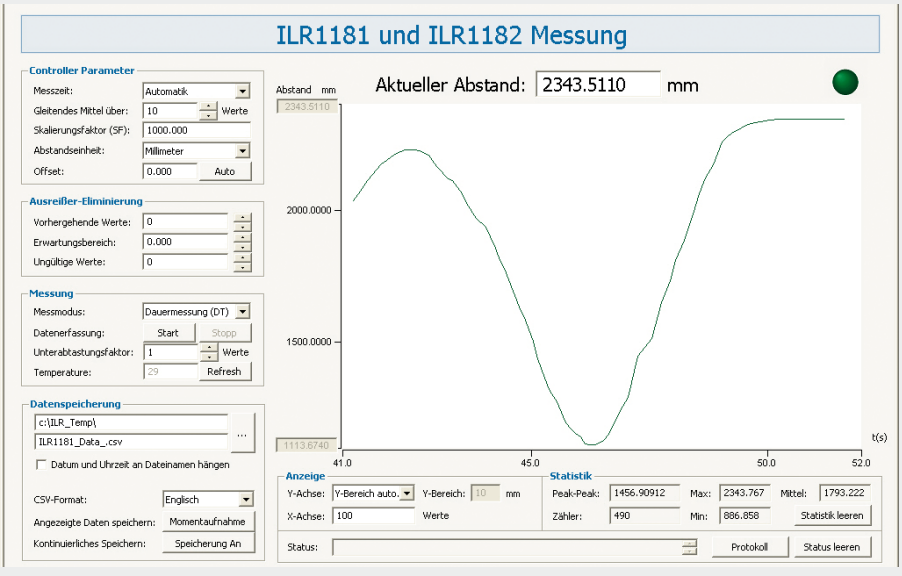


Advantages

- Measuring range up to 80m on diffuse reflecting surfaces, up to 150m with reflector
- Option with integral heating
- Easy adjustment with Laser sighting
- Precise measurement on various surfaces
- Practical mounting grooves for easy installation
- Accessories for harsh environments

Sensors in the optoNCDT ILR 1181 / 1182 / 1183 series are optoelectronic sensors for non-contact distance and displacement measurement for industrial applications. Both sensors operate according to the phase comparison principle, whereby higher precision can be achieved. They can be aligned and positioned in use with a visible laser beam with little effort. The optoNCDT ILR 1182 series operates with a 50Hz measuring rate and is therefore suitable for fast processes. The mounting grooves on the housing offer flexible mounting options for many situations.





Configuration and measurement software for ILR1181 und ILR1182

Model		ILR1181-30	ILR1182-30	ILR1183-30
Measuring range [1]	black 6%	0.4 ... 17m		
	grey 10%	0.1 ... 30m		
	white 90%	0.1 ... 80m		
	reflector	0.1 ... 150m (reflector film ILR-RF118x)		
Linearity [2]		±2mm (+15°C … +30°C), ±5mm (-40°C … +50°C)		
Resolution		0.1mm		
Repeatability		≤0.5mm		
Response time [1]		100ms ... 6s	20ms ... 6s	20ms ... 6s
Laser class (IEC 825-1 / EN 60825-1)		red 650 nm, laser class 2		
Operation temperature		-10°C … + 50°C (optional -40°C … +50°C, with integrated heating)		
Storage temperature		-40°C … +70°C		
Limit outputs		QA (max. 500 mA)		QA / QB (max. 500 mA)
Switching points		free adjustable		
Switching hysteresis		free adjustable		
Trigger input (not compatible with integral heating)		trigger edge and delay selectable, trigger pulse of max 24V		
Serial interface		RS232 or RS422 [3] adjustable, max 38.4 kBaud		SSI interface (RS422), 24Bit, Gray-encoded, 50kHz … 1MHz
Profibus [3]		-		Profibus (RS485) 9.6kBaud … 12MBaud [3]
Operation mode		external triggering, single / continuous measurement, distance tracking		
Analog output		4 … 20mA (16 Bit DA)		-
Temperature stability		≤50ppm / °C		
Supply		10 … 30 VDC		
Max. consumption		<1.5W at 24 V (<24W with heating)		3,2W at 24 V (<26W with heating)
Connection		12-pin M16		1 x 12-pin M16 2 x 5-pin M12 B-encoded
Protection class		IP 65		
Material (housing)		aluminium strangeness profile, powder-coated		
Vibration/Shock		500g, 0.5ms, 1 shock/axis (DIN ISO 9022-30-08-1)		
		10g, 6ms, 1000 shocks/axis (DIN ISO 9022-3-31-01-1)		
Weight		980 g		
EMV		EN 61000-6-2, EN 55011		
Accessoires		page 14 - 15		

[1] depending on target reflectance, ambient light influences and atmospheric conditions
[2] with statistical spread of 95%
[3] sensor configuration via profibus interface

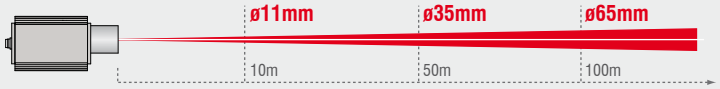
Product identification
ILR 118x - 30 (x x)

Serial interface
0 = none
1 = RS232
2 = RS422

0 = without heating
2 = integral heating

optoNCDT ILR 1181/1182/1183 operate with a wavelength of 650 nm (visible, red). The maximum optical output is ≤ 1 mW. The sensors are classified in Laser Class 2. Class 2 lasers are not notifiable and a laser protection officer is not required either.

Spot diameter ILR1181/1182/1183



High performance sensors made by Micro-Epsilon

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for glass

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