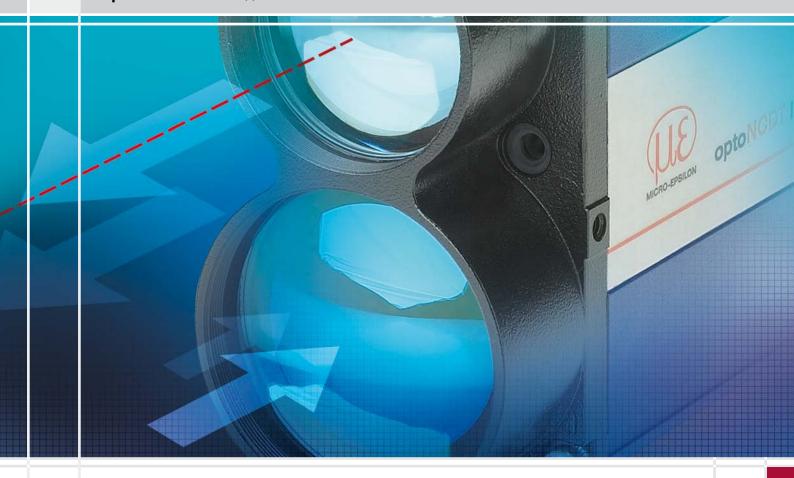


More Precision

optoNCDT ILR // Laser distance sensors

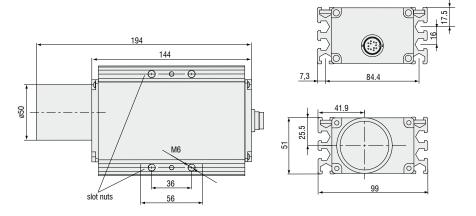


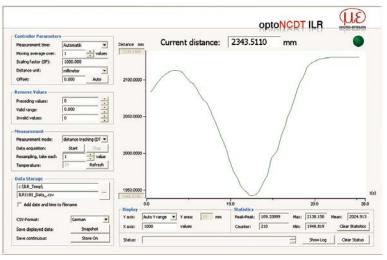


- Measuring range up to 80m on diffuse reflecting surfaces, up to 150m with reflector
- Option with integral heating
- Easy adjustment with laser sighting
- Precise measurement on various surfaces
- Practical mounting grooves for easy installation
- Accessories for harsh environments

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 and 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 50m				
	reflector	50 150m (reflector film ILR-RF118x)				
Linearity 2)		±2mm (+15°C +30°C), ±5mm (-40°C +47°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 650nm, laser class 2				
Operation temperature		-10°C + 47°C (optional -40°C +47°C, with integrated heating)				
Storage temperature		-40°C +70°C				
Limit outputs		QA (max. 500mA)		QA/QB (max. 500mA)		
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				
Analogue 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 24V (<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		980g				
EMV		EN 61000-6-2, EN 55011				
Accessoires		page 14 - 15				

 $^{^{\}rm 1)}$ depending on target reflectance, ambient light influences and atmospheric conditions $^{\rm 2)}$ with statistical spread of 95% $^{\rm 3)}$ 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 650nm (visible, red). The maximum optical output is \leq 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

	ø11mm	ø35mm	ø65mm
	 10m	50m	100m

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



Colour recognition sensors, LED analyzers and colour online spectrometer



Measurement and inspection systems

