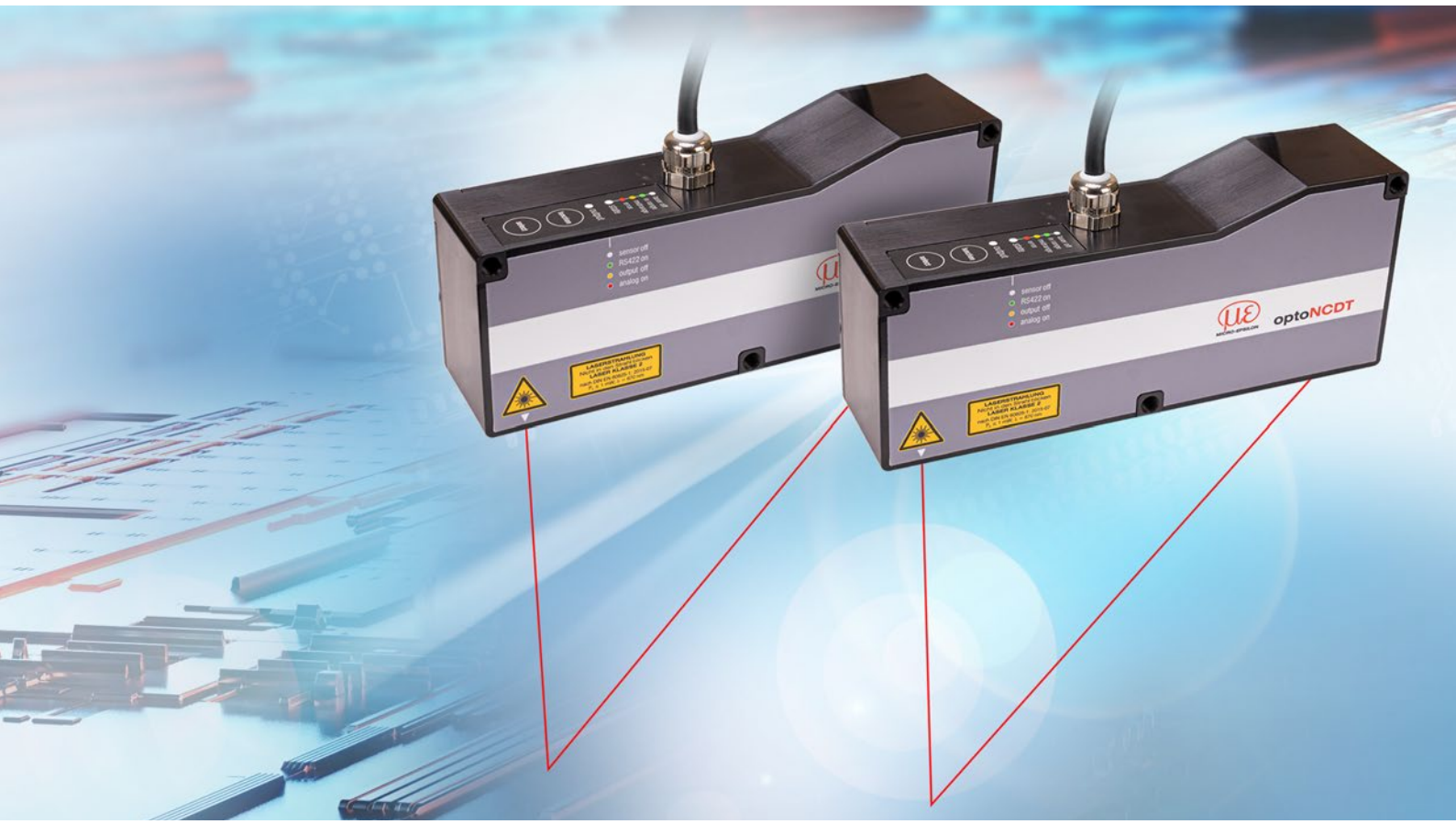
MICRO-EPSILON

More Precision.

optoNCDT 1760-1000

Long-range sensor with large measuring range and offset distance

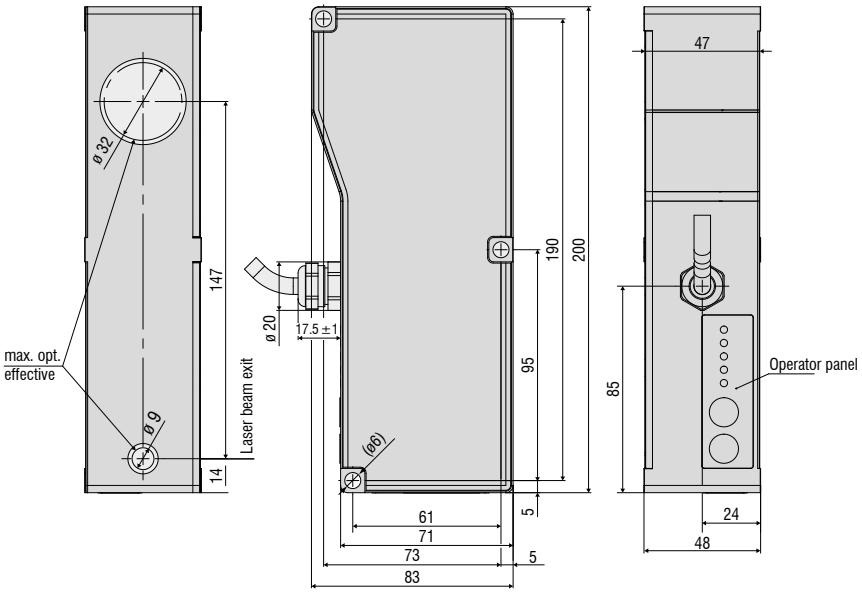


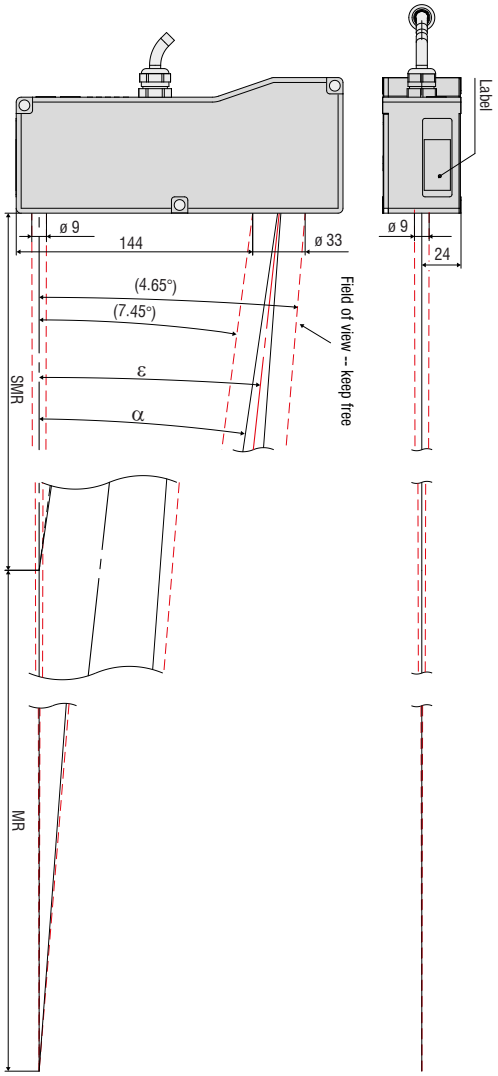
Long-range sensor with large measuring range and offset distance
optoNCDT 1760-1000

- For usual surfaces
- Measuring rate up to 7.5 kHz
- Real Time Surface Compensation
- Repeatability 100 µm

The optoNCDT 1760-1000 long-range sensor has a measuring range of 1000 mm and measures precisely and reliably from just as great a distance on a wide range of material surfaces.

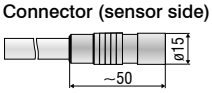
Unlike conventional laser triangulation sensors, long-range sensors measure over a large distance from the target which prevents possible collisions. The integrated RTSC enables precise measurements even on changing surfaces.





MR	SMR	α	ε
1000	1000	7.45 °	4.65 °

Connector (sensor side)



Model		ILD1760-1000
Measuring range		1000 mm
Start of measuring range		1000 mm
Mid of measuring range		1500 mm
End of measuring range		2000 mm
Measuring rate [1]		continuously adjustable between 0.3 ... 7.5 kHz
		6 adjustable stages: 7.5 kHz / 5 kHz / 2.5 kHz / 1.25 kHz / 625 Hz / 300 Hz
Linearity		< ±1000 µm
		< ±0.1 % FSO
Repeatability [2]		100 µm
Light spot diameter (± 10 %)	SMR	2500 … 5000 µm
	MMR	
	EMR	
Light source		Semiconductor laser < 1 mW, 670 nm (red)
Laser class		Class 2 in accordance with DIN EN 60825-1: 2015-07
Permissible ambient light		10,000 lx
Supply voltage		11 … 30 VDC
Power consumption		< 3 W (24 V)
Signal input		1 x HTL/TTL laser on/off; 1 x HTL/TTL multi-function input: trigger in, slave in, zero setting, mastering, teach-in; 1 x RS422 synchronization input: trigger in, sync in, master/slave, master/slave alternating
Digital interface		RS422 (16 bit) / PROFINET [3] / EtherNet/IP [3]
Analog output		4 ... 20 mA / 0 … 5 V / 0 … 10 V (16 bit, freely scalable within the measuring range)
Switching output		2x switching outputs (error & limit value): npn, pnp, push pull
Synchronization		possible for simultaneous or alternating measurements
Connector		integrated pigtail 0.25 m with 14-pin ODU connector, min. bending radius 30 mm (fixed installation); optional extension to 3 m / 10 m possible
Mounting		Screw connection via three mounting holes
Temperature range	Storage	-20 … +70 °C (non-condensing)
	Operation	0 … +50 °C (non-condensing)
Shock (DIN EN 60068-2-27)		15 g / 6 ms in 3 axes
Vibration (DIN EN 60068-2-6)		2 g / 20 … 500 Hz
Protection class (DIN EN 60529)		IP65
Material		Aluminum housing
Weight		approx. 800 g (incl. pigtail)
Control and indicator elements		Select & function keys: interface selections, mastering (zero), teach, presets, quality slider, frequency selection, factory settings; web interface for setup [4]: application-specific presets, peak selection, video signal, freely selectable averaging possibilities, data reduction, setup management 2 x color LEDs for power / status

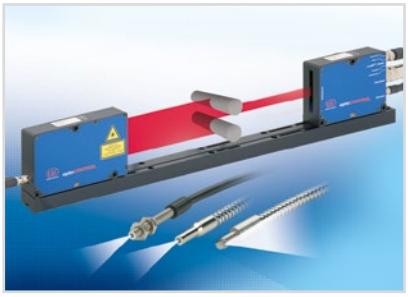
FSO = Full Scale Output
SMR = Start of measuring range, MMR = Mid of measuring range, EMR = End of measuring range
The specified data apply to a white, diffuse reflecting surface (Micro-Epsilon reference ceramic for ILD sensors)
[1] Factory setting 5 kHz, modifying the factory setting requires the IF2001/USB converter (see accessories)
[2] Measuring rate 5 kHz, median 9
[3] Connection via interface module IF2030
[4] Connection to PC via IF2001/USB

Sensors and Systems from Micro-Epsilon

Sensors and systems for displacement, distance and position

Sensors and measurement devices for non-contact temperature measurement

Measuring and inspection systems for metal strips, plastics and rubber



Optical micrometers and fiber optics, measuring and test amplifiers

Color recognition sensors, LED analyzers and inline color spectrometers

3D measurement technology for dimensional testing and surface inspection

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MICRO-EPSILON Headquarters
Koenigbacher Str. 15 · 94496 Ortenburg / Germany
Tel. +49 (0) 8542 / 168-0 · Fax +49 (0) 8542 / 168-90
info@micro-epsilon.com · **www.micro-epsilon.com**