MICRO-EPSILON

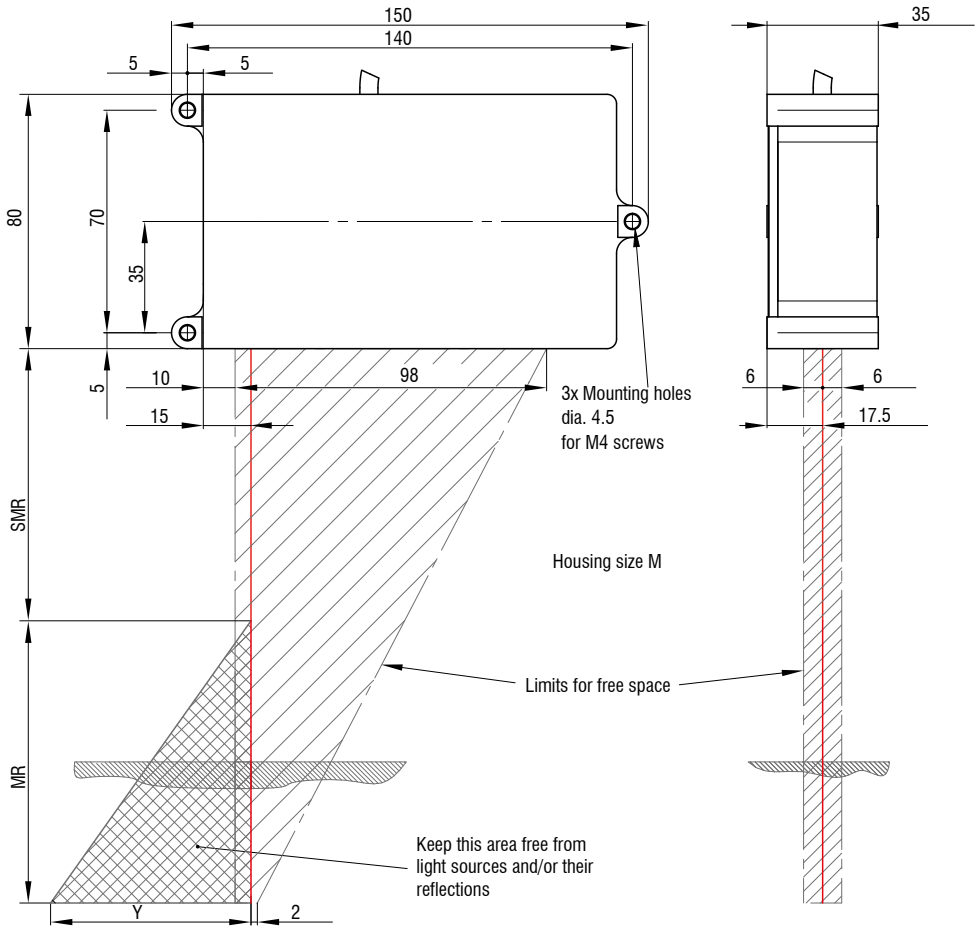
optoNCDT 1910
Long-range laser sensor

- Precise and fast distance measurement
- Large measuring ranges of 500 mm / 750 mm
- Analog and digital interfaces

Model		ILD1910-500	ILD1910-750
Measuring range		500 mm	750 mm
Start of measuring range		200 mm	200 mm
Mid of measuring range		450 mm	575 mm
End of measuring range		700 mm	950 mm
Measuring rate [1]		continuously adjustable between 0.25 … 9.5 kHz or 7 adjustable stages: 9.5 kHz / 8 kHz / 4 kHz / 2 kHz /1.0 kHz / 500 Hz / 250 Hz	
Linearity [2]		< ±0.07 % FSO	±0.08 % FSO
		±350 µm	±600 µm
Repeatability [3]		20 µm	30 µm
Light spot diameter [4]		800 x 800 µm	1100 x 1100 µm
Light source		Semiconductor laser ≤ 1 mW, 670 nm (red) with laser class 2	
Laser class		Class 2 in accordance with IEC 60825-1: 2014 (Class 3 available on request)	
Permissible ambient light[5]		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 [6]		RS422 (18 bit) / EtherCAT / PROFINET / EtherNet/IP	
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	
Connection		integrated pigtail 0.3 m with 17-pin M12 plug; optional extension to 3 m / 6 m / 9 m / 15 m possible (suitable connection cable see Accessories)	
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. 600 g (incl. pigtail)	
Control and indicator elements[7]		Select & function keys: interface selections, mastering (zero), teach, presets, quality slider, frequency selection, factory settings; web interface for setup: application-specific presets, peak selection, video signal, freely selectable averaging possibilities, data reduction, setup management; 2 x color LEDs for power / status	

[1] Factory setting 4 kHz, median 9, modifying the factory setting requires the IF2001/USB converter (see accessories)
[2] FSO = Full Scale Output; data related to the digital output and valid for white, diffusely reflecting surfaces (Micro-Epsilon reference ceramic for ILD sensors)
[3] Typical value with measurements at 4 kHz and median 9
[4] ±15 %; light spot diameter determined with point-shaped laser with Gaussian fit (full $1/e^2$ width)
[5] Illuminant: light bulb
[6] For EtherCAT, PROFINET and EtherNet/IP, connection via interface module is required (see accessories)
[7] Access to web interface requires connection to PC via IF2001/USB (see accessories)

Dimensions:



(dimensions in mm, not to scale)

MR	SMR	Y
500	200	180
750	200	270

MR = Measuring range
SMR = Start of measuring range