MICRO-EPSILON

More Precision

optoNCDT 1220 // Plug & play laser triangulation sensor

Plug & play laser triangulation sensor

optoNCDT 1220

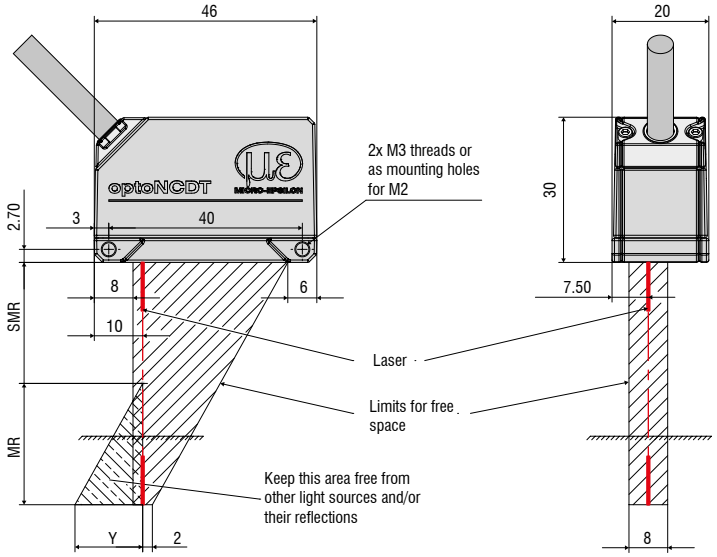
- Ideal for serial and OEM applications
- Compact design with integrated controller
- Measuring rate up to 1 kHz
- Analog output
- Plug & Play via select button
- ATC — Auto Target Compensation

The optoNCDT 1220 is a new laser triangulation sensor with compact size for precise displacement, distance and position measurements. This sensor offers high accuracy and adjustable measuring rates up to 1 kHz.

Due to its extremely compact size with integrated controller, the sensor can also be installed in restricted spaces. Its low weight makes this laser sensor ideally suitable for applications where high accelerations occur e.g. on the robot gripper or in industrial printers.

The integrated Auto Target Compensation (ATC) provides stable distance signal control regardless of target color or brightness. Commissioning is quick and easy via function keys or the web interface.

The combination of compact design, versatility and measurement accuracy enables an excellent price/performance ratio, especially in OEM projects involving large quantities.



MR	SMR	Y
10	20	10
25	25	21
50	35	28

Model		ILD1220-10	ILD1220-25	ILD1220-50
Measuring range		10 mm	25 mm	50 mm
Start of measuring range		20 mm	25 mm	35 mm
Mid of measuring range		25 mm	37.5 mm	60 mm
End of measuring range		30 mm	50 mm	85 mm
Measuring rate [1]		0.25 kHz / 0.5 kHz / 1 kHz		
Linearity		< ± 10 µm	< ± 25 µm	< ± 50 µm
		< ± 0.10 % FSO		
Repeatability [2]		<3.7 µm	<9.2 µm	<18.4 µm
Temperature stability		± 3 µm / K	± 7.5 µm / K	± 15 µm / K
		± 0.03 % FSO / K		
Light spot diameter (± 10 %)	SMR	90 x 120 µm	100 x 140 µm	90 x 120 µm
	MMR	45 x 40 µm	120 x 130 µm	230 x 240 µm
	EMR	140 x 160 µm	390 x 500 µm	630 x 820 µm
	smallest diameter	45 x 40 µm with 24 mm	55 x 50 µm with 31 mm	70 x 65 µm with 42 mm
Light source		semiconductor laser < 1 mW, 670 nm (red)		
Laser safety class		class 2 in accordance with DIN EN 60825-1 : 2015-07		
Permissible ambient light [3]		20,000 lx		
Supply voltage		11…30 VDC		
Power consumption		< 2 W (24 V)		
Analog output		4 ... 20 mA (freely scalable within the measuring range)		
Switching output		1 x error output npn, pnp, push pull		
Connection		integrated cable 2 m, open ends, minimum bending radius 30 mm (fixed installation)		
Mounting		screw connection via two mounting holes		
Temperature range	Storage	-20 ... +70 °C (non-condensing)		
	Operation	0 ... +50 °C (non-condensing)		
Shock (DIN-EN 60068-2-29)		15 g / 6 ms in 3 axes		
Vibration (DIN-EN 60068-2-6)		20 g / 20 … 500 Hz		
Protection class (DIN-EN 60529)		IP65		
Material		aluminum housing		
Weight		approx. 30 g (without cable), approx. 110 g (incl. cable)		
Control and display elements		Select button for zero / teach / factory settings web interface for setup [4] 2 x 3 color LEDs for power and status		

FSO = Full Scale Output
SMR = start of measuring range; MMR = midrange; EMR = end of measuring range
[1] Factory setting 1 kHz; modifying the factory settings requires the IF2001/USB converter (optionally available)
[2] Measuring rate 1 kHz, median 9
[3] Illuminant: light bulb
[4] Connection to PC via IF2001/USB (optionally available)

Sensors and Systems from Micro-Epsilon

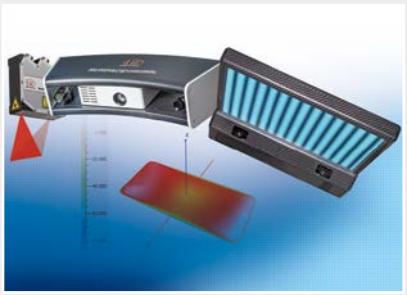
Sensors and systems for displacement, distance and position

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

MICRO-EPSILON

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**