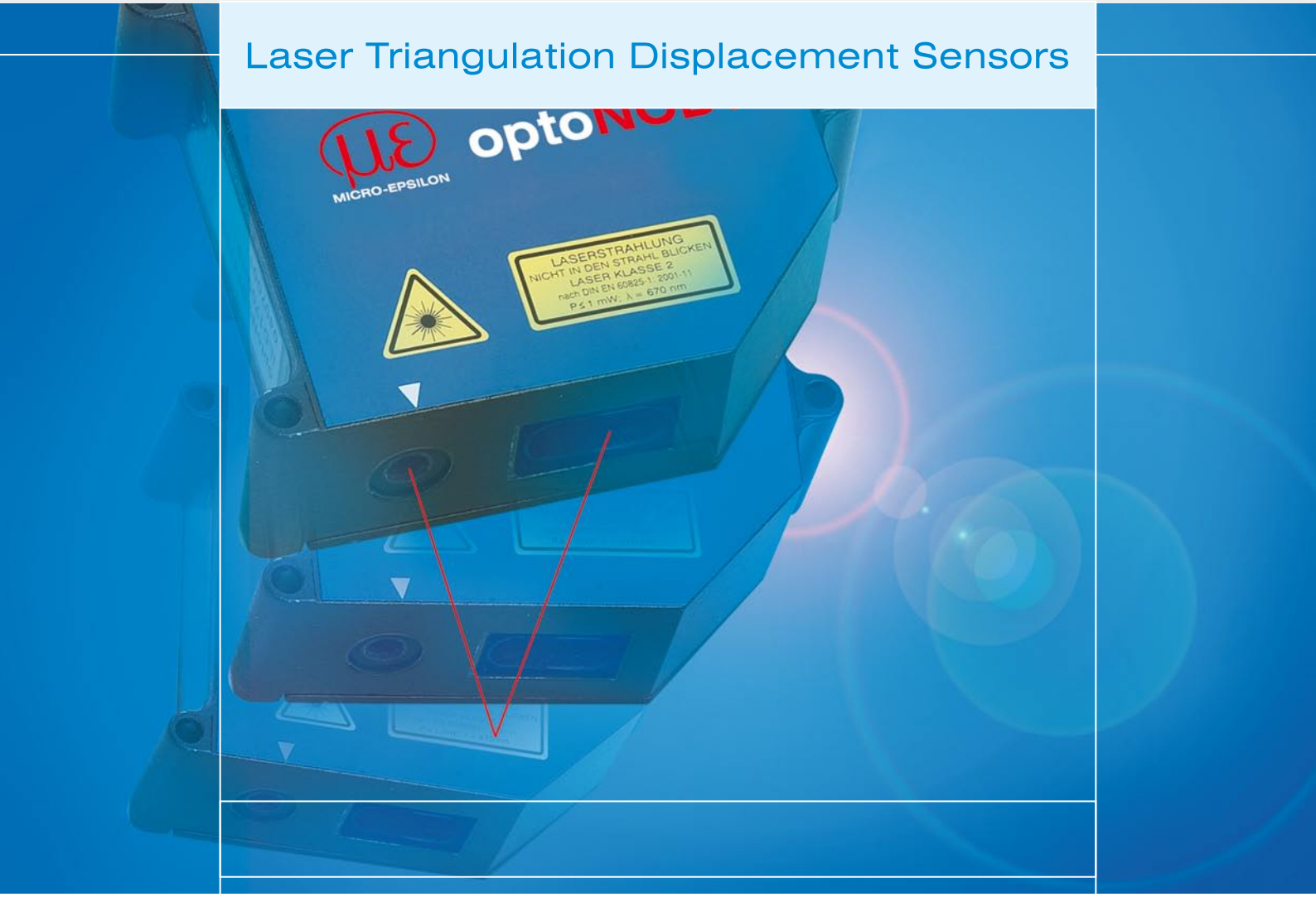
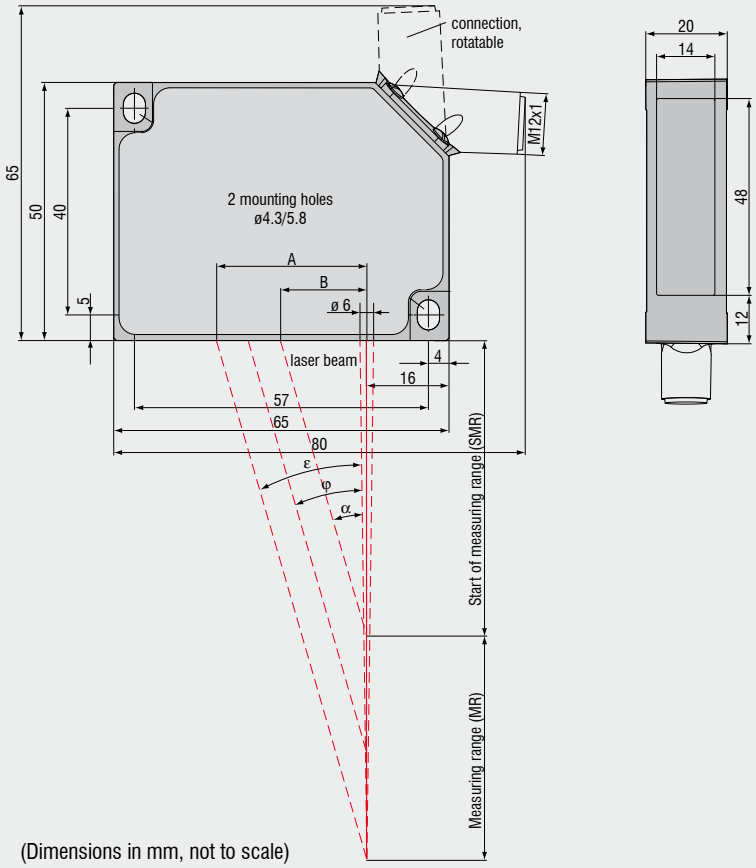
MICRO-EPSILON

Laser Triangulation Displacement Sensors



- Four models with measuring ranges from 20mm to 200mm
- Ideal for OEM applications
- Compact design with integrated controller
- Measuring rate up to 750Hz
- Analog (U/I) and digital output
- Trigger input and teach-in
- High flex cables for drag chain or robot use
- Configuration via software www.micro-epsilon.com/download
- Auto Target Compensation

optoNCDT 1302



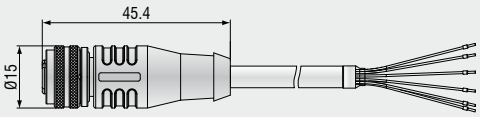
MR	SMR	α	φ	ε	A	B
20	30.0	31.2	27.9	25.8	24.2	18.2
50	45.0	25.1	19.6	16.9	28.9	21.1
100	50.0	23.1	14.4	11.3	30.1	21.3
200	60.0	20.1	9.4	6.8	30.8	22.0

(Dimensions in mm, not to scale)

Model		ILD 1302-20	ILD 1302-50	ILD 1302-100	ILD 1302-200
Measuring range		20mm	50mm	100mm	200mm
Start of measuring range	SMR	30mm	45mm	50mm	60mm
Midrange	MR	40mm	70mm	100mm	160mm
End of measuring range	EMR	50mm	95mm	150mm	260mm
Linearity		40µm	100µm	200µm	400µm
		±0.2 % FSO			
Resolution	averaged with factor 64	4µm	10µm	20µm	40µm
		0.02 % FSO			
	dynamic 750Hz	10µm	25µm	50µm	100µm
		0.05 % FSO			
	digital	12bit			
Measuring rate		750Hz			
Light source		semiconductor laser <1mW, 670nm (red)			
Laser protection class		class 2 IEC 60825-1 : 2001-11			
Spot diameter	SMR	210µm	1100µm	1400µm	2300µm
	MR	530µm	110µm	130µm	2200µm
	EMR	830µm	1100µm	1400µm	2100µm
Protection class		IP 67			
Vibration		15g / 10Hz…1kHz			
Shock		15g / 6ms (IEC 68-2-29)			
Weight (without cable)		approx. 83g			
Operating temperature		0…+50°C			
Storage temperature		-20...+70°C			
Output	analog	4...20mA (1...5V with cable PC 1402-3/U)			
	digital	RS422 (12bit)			
Control I/O		1x open collector output (switching output, switch, error); 1x input (teach in, trigger); 1x laser on/off			
Power supply		11...30VDC, 24VDC / 50mA			
Controller		integrated signal processor			
Electromagnetic compatibility (EMC)		EN 61326-1:2006 / EN 55011 Class B (Interface emission) EN 61326-1:2006 / EN 61000-4-2:1995 + A1:1998 + A2:2001 (Interference resistance)			

FSO = Full scale output All specifications apply for a diffusely reflecting matt white ceramic target
SMR = Start of measuring range; MR = Midrange; EMR = End of measuring range

Connector axial



12-pin-connector
(view on solder termination side of male inserts)

Pin	Description		color PC1402-x/I
3	RS422 Rx+	serial input	green
4	RS422 Rx-		yellow
5	RS422 Tx+	serial output	grey
6	RS422 Tx-		pink
7	$+U_B$	11-30VDC type 24V	red
8	Laser on/off	switch input	black
9	Teach in		violet
10	Error	switch output	brown
11	I_{OUT}	4 ... 20mA	white
12	GND	supply and signal ground	blue
1/2	n.c.		

The cable screen is connected with the sensor housing. The interface and power supply cable are robot rated and UL certfied. At one end there is a 12pin M12 connector, the other end is open.

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