







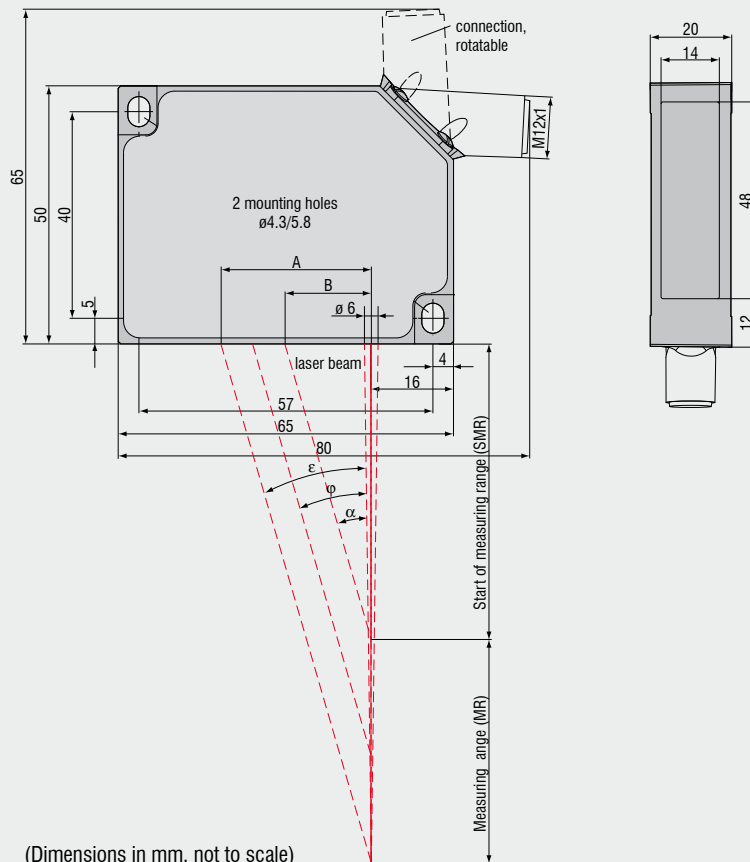




-  **Four models with measuring ranges from 20mm to 200mm**
-  **Ideal for OEM applications**
-  **Compact design with integrated controller**
-  **Measuring rate up to 750Hz**
-  **Analogue (U/I) and digital output**
-  **Trigger input and teach-in**
-  **High flex cables for dragchain and robot use**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

The miniaturised optoNCDT 1302 is a low-cost laser sensor for common measuring tasks. The extremely small design facilitates its integration even in areas with limited space. Despite the small dimensions, the 1302 series provides precise measurement results and is suitable for machine integration and automation technology.

optoNCDT 1302

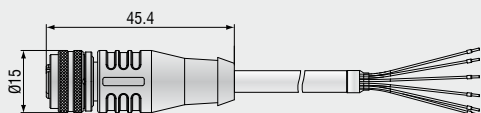


MR	SMR	α	φ	ϵ	A	B
20	30.0	31.2	27.9	25.8	24.2	18.2
50	45.0	25.1	19.6	16.9	28.9	21.1
100	50.0	23.1	14.4	11.3	30.1	21.3
200	60.0	20.1	9.4	6.8	30.8	22.0

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		40 μ m	100 μ m	200 μ m	400 μ m
Resolution			± 0.2 % FSO		
	averaged with averaging factor 64	4 μ m	10 μ m	20 μ m	40 μ m
	dynamic 750Hz	10 μ m	25 μ m	50 μ m	100 μ m
Measuring rate		750Hz			
Light source		semiconductor laser <1mW, 670nm (red)			
Laser protection class		class 2 IEC 60825-1 : 2001-11			
Spot diameter	SMR	210 μ m	1100 μ m	1400 μ m	2300 μ m
	MR	530 μ m	110 μ m	130 μ m	2200 μ m
	EMR	830 μ m	1100 μ m	1400 μ m	2100 μ m
Protection class		IP 67			
Vibration		15g / 10Hz...1kHz			
Shock		15g / 6ms (IEC 68-2-29)			
Weight (without cable)		approx. 83g			
Temperature stability		0.03 % FSO/ $^{\circ}$ C		0.08 % FSO/ $^{\circ}$ C	
Operating temperature		0...+50 $^{\circ}$ C			
Storage temperature		-20...+70 $^{\circ}$ C			
Output	analogue	4...20mA (1...5V with cable PC 1402-3/U)			
	digital	RS422			
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		colour PC1402-x/I
3	RS422 Rx+	serial input	green
4	RS422 Rx-	serial input	yellow
5	RS422 Tx+	serial output	grey
6	RS422 Tx-	serial output	pink
7	+U _B	11-30VDC type 24V	red
8	Laser off	switch input	black
9	Teach in	switch input	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 certified. At one end there is a 12pin M12 connector, the other end is open.