









More Precision.

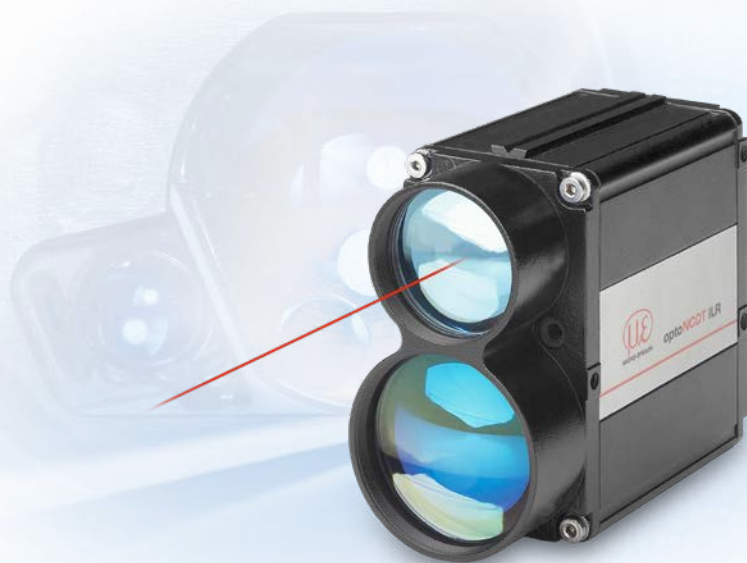
optoNCDT ILR // Laser-optical distance sensors



High-performance laser distance sensor for industrial applications

optoNCDT ILR1191-300

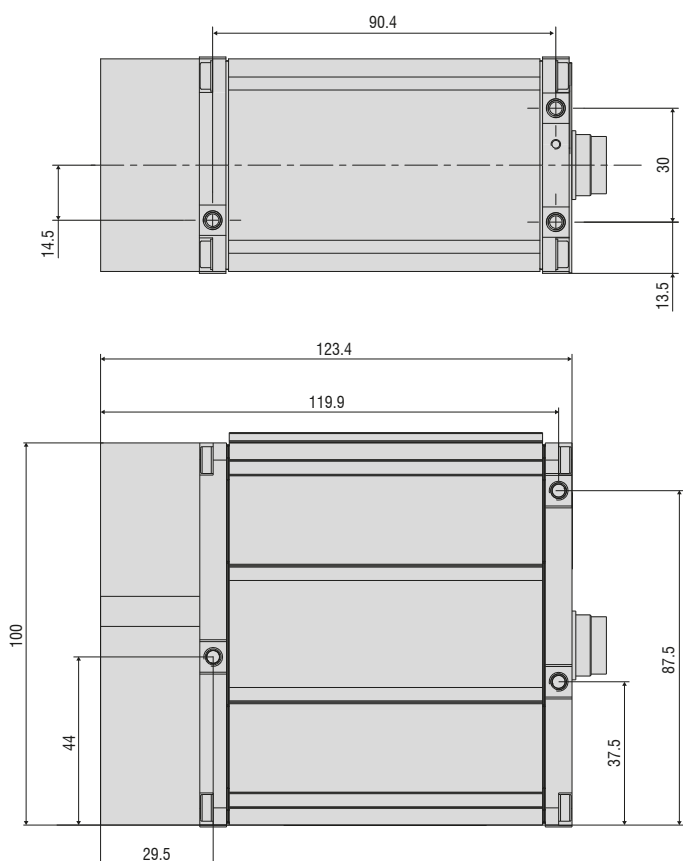
-  Measuring range up to 300 m, (with reflector 3000 m)
-  Distance and speed measurements
-  Measurement laser: laser class 1
Sighting laser: laser class 2
-  Robust design IP67
-  Very high measuring rate for fast applications
-  Integrated heating



optoNCDT ILR 1191 sensors are optoelectronic sensors for non-contact distance and speed measurement in industrial applications. The sensor is designed for very large measuring ranges, with and without reflector. Due to the very high measuring rate of the sensor, moving objects can be measured easily. The sensor operates according to the laser pulse time-of-flight principle and is therefore particularly

well suited to applications with large distances. Commissioning of the sensor is straightforward due to a variety of interfaces and easy installation options. For outdoor use, the optoNCDT ILR 1191 is equipped with integral heating and protected to IP67.

Models with serial interface



(dimensions in mm, not to scale)



Model	ILR1191-300		
Article number	7112010		
	SMR	EMR	
Measuring range ¹⁾	black 6 %	8 m	150 m
	gray 10 %	0.5 m	200 m
	white 90 %	0.5 m	300 m
	Reflector film ⁴⁾	0.5 m	3,000 m
Measuring range/speed	0 ... 100 m/s		
Measuring rate	Distance measurement	2,000 Hz	
	Speed measurement	80 Hz	
Resolution	1 mm		
Linearity ²⁾	< ±20 mm (at measurement output 100 Hz); < ±60 mm (at measurement output 2 kHz)		
Repeatability ³⁾	<20 mm		
Temperature stability	≤ 20 ppm / K		
Light source	Measuring laser	Semiconductor laser < 1 mW, 905 nm (infrared)	
	Sighting laser	Semiconductor laser < 1 mW, 635 nm (red)	
Laser class	Measuring laser	Class 1 in accordance with DIN EN 60825-1:2014	
	Sighting laser	Class 2 in accordance with DIN EN 60825-1:2014	
Permissible ambient light	50,000 lx		
Supply voltage	10 ... 30 VDC		
Power consumption	< 5 W (< 11.5 W with heating)		
Signal input	Trigger		
Digital interface	RS232; RS422 (max 230.4 kBaud)		
Analog output	4 ... 20 mA (16 Bit DA)		
Switching output	Q1 / Q2 (max 200 mA)		
Connector	12-pin M16 connector for supply/RS232/RS422; (connection cable see accessories)		
Assembly	Through-holes M4x6		
Temperature range	Storage	-40 ... +70 °C	
	Operation	-40 ... +60 °C	
Shock (DIN EN 60068-2-29)	15g / 6 ms in 3 axes, 1000 shocks		
Vibration (DIN EN 60068-2-6)	10 g / 10 ... 500 Hz in 3 axes, 10 cycles each		
Protection class (DIN EN 60529)	IP67		
Material	Aluminum housing		
Weight	800 g		
Control and indicator elements	5x LEDs for target, status, switching state and link		
Special features	-		

SMR = Start of measuring range, EMR = End of measuring range

The specified data apply for a consistent room temperature of 20 °C, sensor is continuously in operation. Measured on white, diffuse reflecting surface (reference ceramic)

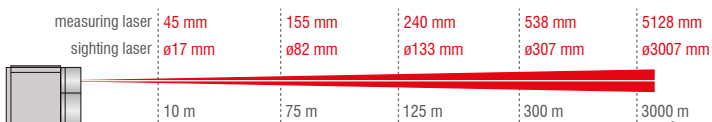
¹⁾ Depends on the reflectivity of the target, ambient light interference and atmospheric conditions

²⁾ Statistical spread 2 σ

³⁾ Measurement frequency of 100 Hz, moving average 10

⁴⁾ ILR-RF250 reflector film 250 x 250 mm; article no: 7966001

Spot diameter ILR1191



Article description







ILR 1191 - 300 (0 x)

Serial interface
1 = RS232
2 = RS422














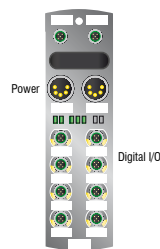


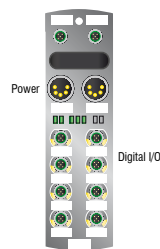
optoNCDT ILR 1191 use a semiconductor class 1 laser (operating mode) and a semiconductor class 2 laser (setup mode). Devices of this laser classes require no special safety precautions.

Accessories optoNCDT ILR

Accessories optoNCDT ILR103x/LC1


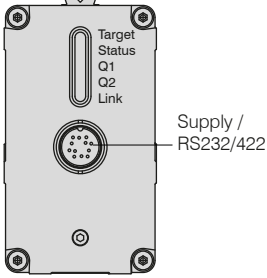








Connection	Interface modules	Connection cables	Sensor	Accessories
Supply/PLC Power supply unit PS2031 Art. no.: 2420096 		Supply and output cable Art. no.: 2901232 (2 m) 2901233 (2 m, 90°) 2901234 (5 m) 2901235 (5 m, 90°) 2901268 (10 m, 90°) 29011248 (10 m)		Reflector 250 x 250 mm Art. no.: 7966001 
Digital output/Ethernet 	IF1032/ETH Art. no.: 2420066 			

Accessories optoNCDT ILR2250-100 / ILR2250-100-H / ILR2250-100-IO

Connection	Interface modules	Connection cables	Sensor	Accessories
Supply/PLC Power supply unit PS2031 Art. no.: 2420096 		Supply and output cable Art. no.: 2901524 (3 m) 2901239 (3 m, 90°) 2901573 (5 m) 2901240 (5 m, 90°) 2901236 (10 m) 2901241 (10 m, 90°) 2901237 (20 m) 2901242 (20 m, 90°) 2901238 (30 m) 2901243 (30 m, 90°)	ILR2250-100 ILR2250-100-H 	Reflector 210 x 297 mm Art. no.: 7966058 
Digital output/Ethernet 	IF2001/USB Art. no.: 2213025 			
	IC2001/USB Art. no.: 2213041 		Art. no.: 29011342 (3 m) 29011347 (5 m) 29011348 (10 m) 29011372 (20 m) 2x 2901528 (0.3 m)	Air purge collar Art. no.: 7966062 
	IF2004/USB Art. no.: 2213024 		Protective glass Art. no.: 7966061 	
	IF1032/ETH Art. no.: 2420066 			Filter glass Art. no.: 7966063 ILR-NDF 0.75 7966066 ILR-NDF 0.5 7966068 ILR-NDF 0.9 
PLC Ethernet 	IF2030 for PROFINET Art. no.: 2420087 	Art. no.: 29011107 (5 m)	ILR2250-100-IO Sensor + adapter cable (0.3 m)  	
	IF2030 for EtherNet/IP Art. no.: 2420088 	Art. no.: 29011398 (3 m)		
	IF2008/ETH for 8 sensors Art. no.: 2213030 	IO-Link standard cable Art. no.: 29011362 (5 m) 29011363 (10 m) 29011364 (15 m) 		
	IO-Link master 			

Accessories optoNCDT ILR

Accessories optoNCDT ILR1 191-300

Connection	Interface modules	Connection cables	Assembly	Accessories
Supply/PLC Power supply unit PS2031 Art. no.: 2420096 		Supply and output cable Art. no.: 2901524 (3 m) 2901239 (3 m, 90°) 2901573 (5 m) 2901240 (5 m, 90°) 2901236 (10 m) 2901241 (10 m, 90°) 2901237 (20 m) 2901242 (20 m, 90°) 2901238 (30 m) 2901243 (30 m, 90°)	Electrical connections 	Reflector 250 x 250 mm Art. no.: 7966001 
Digital output/Ethernet 	IF2001/USB Art. no.: 2213025 			Mounting plate Art. no.: 7966014 
	IF1032/ETH Art. no.: 2420066 			Protection tube Art. no.: 7966019 
				Alignment aid Art. no.: 7966060 

Sensors and Systems from Micro-Epsilon



Sensors and systems for displacement, position and dimension



Sensors and measurement devices for non-contact temperature measurement



Measuring and inspection systems for quality assurance



Optical micrometers, fiber optics, measuring and test amplifiers



Color recognition sensors, LED Analyzers and inline color spectrometers



3D measurement technology for dimensional testing and surface inspection