



# More Precision

optoNCDT ILR // Laser distance sensors

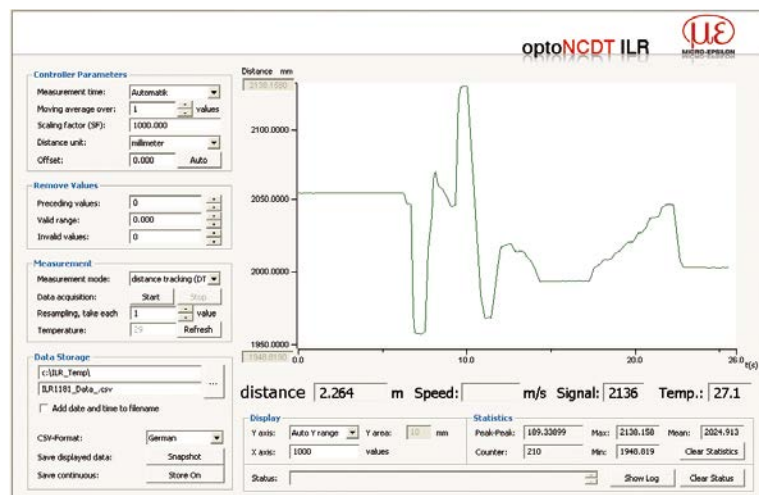
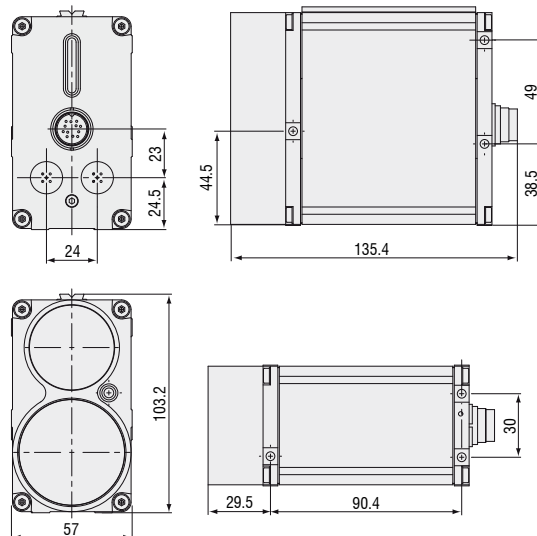




- Measuring range 500m in diffuse reflecting surfaces, up to 3000m with reflector
- Distance and speed measurement
- Integrated heating
- For fast measuring events
- Easy installation
- Accessories for harsh environments

Sensors in the optoNCDT ILR 1191 series are optoelectronic sensors for non-contact distance and speed measurement for industrial use. 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 runtime 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 mounting options. The optoNCDT ILR 1191 is fitted with an integrated heater for outdoor use. A sighting device is also integrated for alignment.



Configuration and measurement software for ILR1191

Model	ILR1191-300	
Measuring range <sup>1)</sup>	black 6%	1 ... 150m
	grey 10%	0.5 ... 200m
	white 90%	0.5 ... 300m
	reflector	300 ... 3000m
Speed	0ms <sup>-1</sup> ... 100ms <sup>-1</sup>	
Linearity <sup>2)</sup>	±20mm (at measurement output 100Hz) ±60mm (at measurement output 2kHz)	
Resolution	1mm	
Repeatability	≤20mm	
Response time	distance measurement	0.5ms
	speed measurement	12ms
Laser class	measuring laser	905nm, laser class 1
	sighting laser	635nm, laser class 2
Operation temperature	-40°C ... +60°C	
Storage temperature	-40°C ... +70°C	
Limit outputs	QA/QB (max. 200mA)	
Switching points	free adjustable	
Switching hysteresis	free adjustable	
Trigger input	trigger edge and trigger delay programmable, trigger pulse max. 30V	
Serial interface	RS232 and RS422 with 1.2kBaud ... 460.8kBaud SSI interface (RS422), 24Bit, Gray-encoded 50kHz ... 1MHz	
Profibus	RS485, 9.6 kBaud ... 12MBaud	
Operation mode	single/continuous measurement, external triggering (adjustable near field elimination), speed measurement	
Analogue output	4 ... 20mA (16 Bit DA)	
Temperature stability	≤50ppm/°C	
Supply	10 ... 30 V DC	
Max. consumption	<5W without heating, 11.5W with heating	
Connection	1 x 12-pin M16, 2 x 5-pin M12 B-coded	
Protection class	IP 67	
Material (housing)	aluminium strangeness profile, powder-coated	
Weight	800g (depends on equipment)	
Vibration/Shock	500g, 0.5ms, 1 shock/axis (DIN ISO 9022-30-08-1)	
	10g, 6ms, 1000 shocks/axis (DIN ISO 9022-3-31-01-1)	
EMV	EN 61000-6-2, EN 55011	
Accessoires	page 14 - 15	

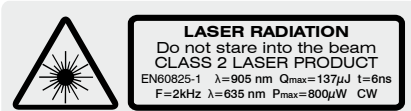
<sup>1)</sup> depending on target reflectivity, stray light effects and atmospheric conditions

<sup>2)</sup> with statistical spread of 95%

### Product identification

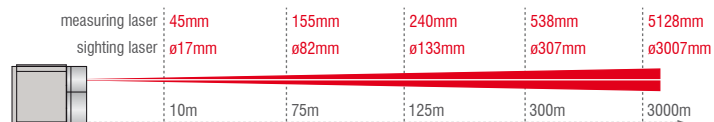
ILR 1191 - 300 (0 x)

- Serial interface  
 1 = RS232  
 2 = RS422  
 3 = RS232 + SSI  
 4 = RS232 + Profibus



optoNCDT ILR 1191 use a semiconductor class 1 laser (operating mode) and a semiconductor class 2 laser (setup mode). With these classes no protection is needed.

### Spot diameter ILR1191



## High performance sensors made by Micro-Epsilon



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