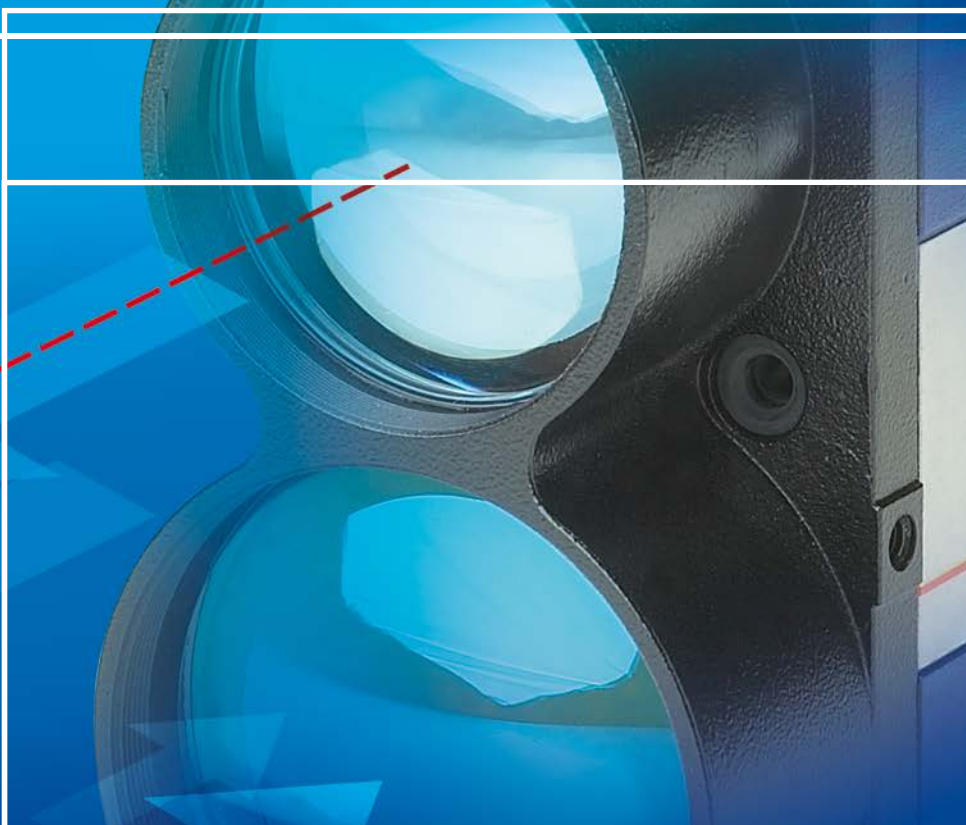




# More Precision.

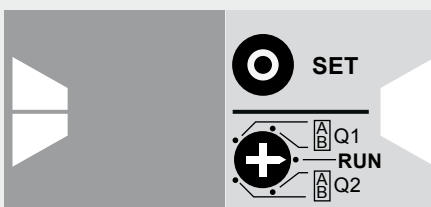
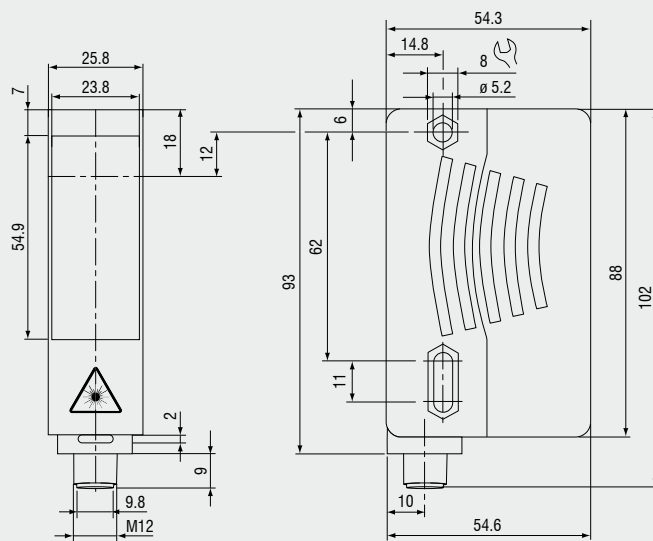
## **optoNCDT ILR** Laser distance sensors



**Advantages:**

- Measuring range up to 15m on diffuse reflecting targets / 50m on reflector
- Very short response time
- Small size
- Excellent price-performance ratio

The laser distance sensors ILR1030/1031 operate according to the time-of-flight technology. Thanks to this technology the sensors permanently offer – independent of environmental conditions such as surface characteristics, dark colour or present external light – accurate, reliable and clear as well as reproducible measurement results.



ILR103x: Analog output and Limit output programming via touch keys

Model		ILR1030-8	ILR 1030-8/LC1	ILR 1030-15	ILR1031-50	ILR1031-50/LC1
Measuring range <sup>1)</sup>	black 10%	0.2 ... 2.5m	0.2 ... 2,5 m	0.2 ... 5 m	-	-
	grey 18%	0.2 ... 3.5m	0.2 ... 3,5 m	0.2 ... 6 m	-	-
	white 90%	0.2 ... 8m	0.2 ... 8 m	0.2 ... 15 m	-	-
	reflector	-	-	-	0.2 ... 50m (ILR-RF250 / ILR-RF70)	
Linearity <sup>2)</sup>	±20mm					
Resolution	1mm					
Repeat accuracy	<5mm					
Response time	10ms					
Laser class	meas. laser red 660nm	class 2	class 1	class 2	class 2	class 1
Permissible ambient light	50,000lx					
Operation temperature <sup>3)</sup>	-30° ... +50°C (humidity 5 - 95%, no condensation)					
Storage temperature	-30° ... +70°C					
Limit outputs	Q1 / Q2 push-pull outputs					
Switching voltage	max. 30VDC					
Switching current	max. 100mA					
Analogue output	4 ... 20mA, short-circuit/overload protected					
Temperature stability	≤0.25mm / °C					
Supply	10 - 30VDC, class 2					
Connection	connector M12x1, 4-pin					
Protection class	IP 65					
Material	housing	Plastic ABS				
	window	Plastic pane				
Weight	90g					
Accessoires	page 14 - 15					

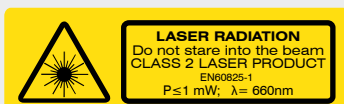
<sup>1)</sup> depending on target reflectivity, stray light effects and atmospheric conditions

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

<sup>3)</sup> when crossing 0°C an additional heating may be required



optoNCDT ILR 103x-LC1 use a semiconductor class 1 laser. With this laser class no protection is needed.

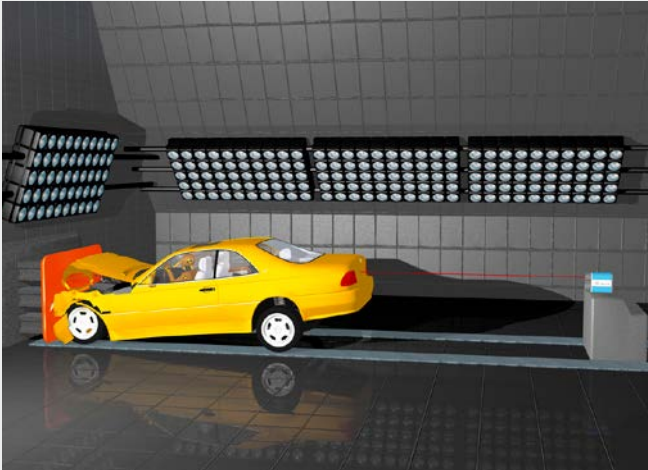


optoNCDT ILR 1030/1031 operate with a wavelength of 660 nm (visible, red). The maximum optical output is ≤ 1 mW. The sensors are classified in Laser Class 2. Class 2 lasers are not notifiable and a laser protection officer is not required either.

Spot diameter ILR 1030 / 1031



## Applications



### Speed measurement in the crash test

During the acceleration of vehicles in the crash test, an ILR1191 measures the impact speed and the deformation of the test vehicle.



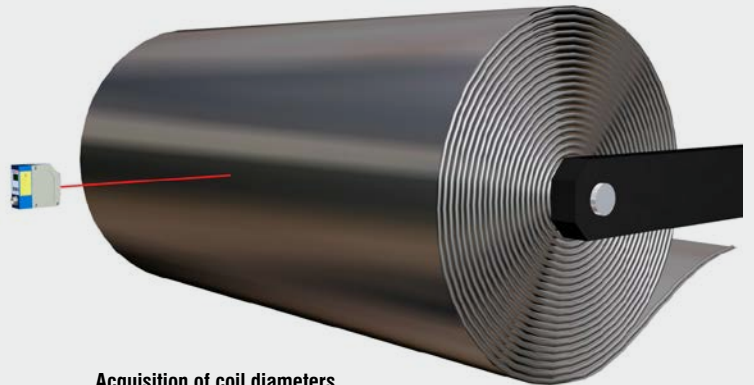
### Position measurement on gantry cranes

Numerous measurement tasks on gantry cranes must be performed: Positioning of the trolley, detection and dimensioning of containers and monitoring of the minimum clearance between the cranes. The ILR1191 with a very large measuring range and low response time is designed for these measurement tasks.



### Level measurement in container, tanks and silos

Depending on the accuracy demanded, the filling level of silos is found at up to four points. The level is determined from these distances.



### Acquisition of coil diameters

The quantities of steel, paper and fabric wound on and off are monitored via the acquisition of coil diameters using laser probes.