OPTIMESS®
The non-contact measurement system

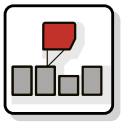
Laser distance sensor

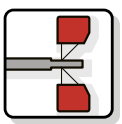
OPTIMESS SLC CCD

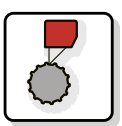
- Compact sensor
- Digital processing of measured values
- Analog output or CAN bus

The opto-electronic sensor OPTIMESS SLC is a device for non-contact distance measurement. This sensor distinguishes itself by a great independence of the measurement accuracy on different material surfaces and from the ambient light.

The OPTIMESS SLC works according to the triangulation principle. The laser spot projected by a laser diode via an optical system is represented at an angle on linescan image sensor by a receiving optical system. The processor integrated in the sensor processes the optical distance information and outputs them as an analog value or via the CAN bus.


Distance measurement, position control


Thickness measurement


Profile measurement


Steel industry, industrial automation


Railroad systems


Car industry


Rubber and tire industry

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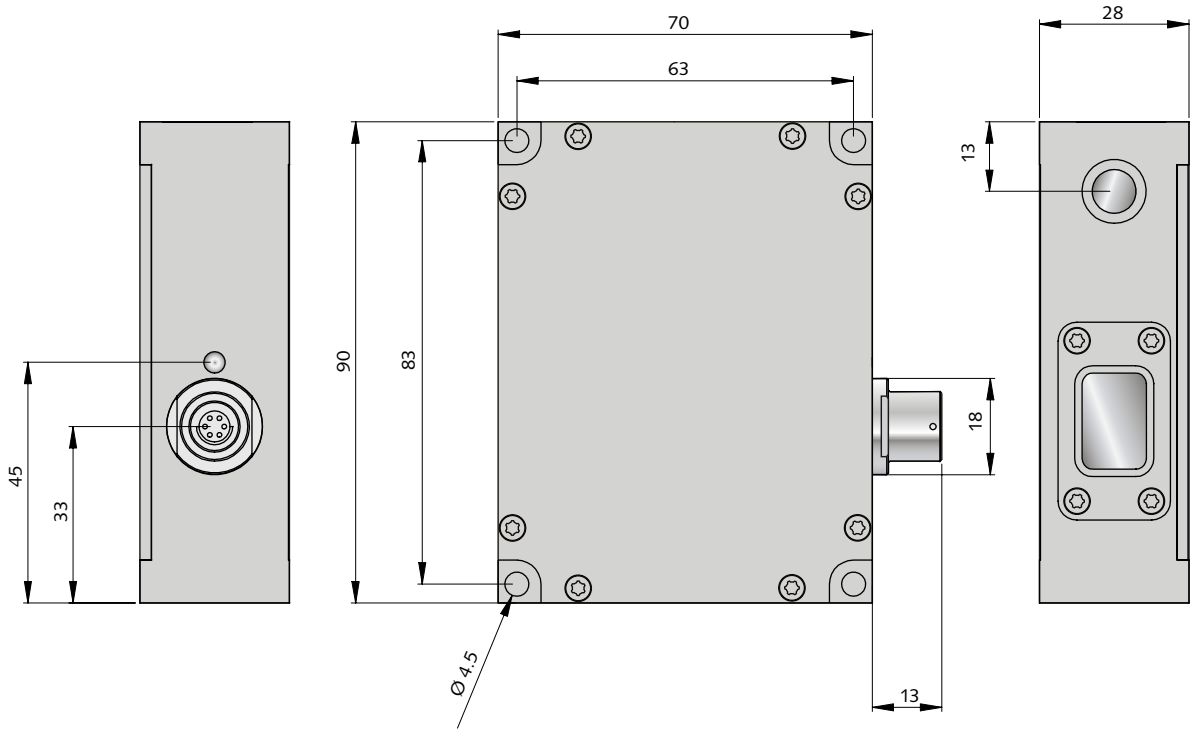

Technical data

	OMS 4402	OMS 4404	OMS 4408	OMS 4416
Measuring range [mm]	20	40	80	160
Stand off [mm]	50	80	130	200
Resolution [mm] [1]	0.005	0.010	0.020	0.040
Linearity	≤ ± 0.08% FSO			
Reproductibility	≤ ± 0.04% FSO			
Bandwidth [2]	8 kHz max.			
Filter [2]	Digital averaging			
Measuring rate	8 kHz max.			
Light source	Laser diode			
Spot diameter [2]	0.05–2 mm			
Wave-length [2]	660 nm			
Laser safety class [2]	2 / 3R / 3B			
Photo detector	CMOS Linear image sensor			
Supply voltage	± 15 V / 120 mA, ± 5% or 12–30 V / 120 mA [3]			
Output [2]	± 5 V / ± 10 V / 0–5V / 0–10 V / 0–20 mA / 4–20 mA / CAN - Bus			
Operating temperature	-20°C bis 50°C (no condensation)			
Dimensions	90 x 70 x 28 mm			
Weight	approx. 250 g			
Protection class	IP 65			

[1] Standard settings with filter 200Hz [2] Factory-set depending on the application [3] only unipolar output and CAN Bus