

**Laser distance sensor**






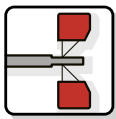



OPTIMESS M CCD									
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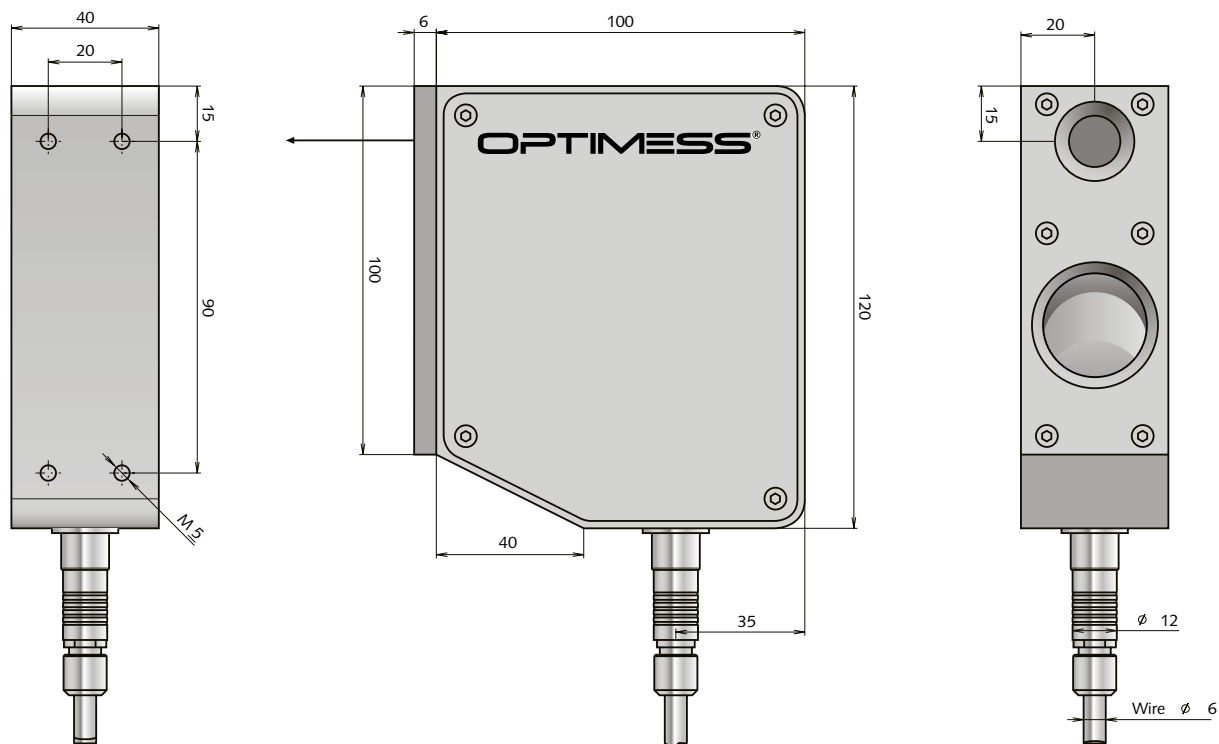


- High measuring rate
- High accuracy
- Digital processing of measured values
- Analog output or CAN bus

The opto-electronic sensor OPTIMESS M 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 M works according to the triangulation principle. The laser spot projected by a laser diode via an optical system is represented at an angle on a 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.

 Robotics	 Profile measurement	 Steel industry, industrial automation	 Railroad systems
 Dynamic contour measurement	 Thickness measurement	 Car industry	
 Distance measurement, position control		 Rubber and tire industry	



### Technical data

	OMS 8008	OMS 8020	OMS 8040	OMS 8080	OMS 8120	OMS 8200
Measuring range [mm] [3]	8	20	40	80	120	200
Stand off [mm] [3]	50	100	150	200	300	400
Resolution [mm] [1]	0.002	0.005	0.010	0.020	0.030	0.050
Linearity	≤ ± 0.06% FSO					
Reproductibility	≤ ± 0.03% FSO					
Bandwidth [2]	20 kHz max.					
Filter [2]	Digital averaging					
Measuring rate	20 kHz max.					
Light source	Laser diode					
Spot diameter [2]	0.05–5 mm					
Wave-length [2]	660–780 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 [4]					
Output [2]	± 5 V / ± 10 V / 0–5 V / 0–10 V / 0–20 mA / 4–20 mA / CAN - Bus					
Operating temperature	-20°C bis 50°C (no condensation)					
Dimensions	120 x 100 x 40 mm					
Weight	approx. 820 g					
Protection class	IP 65					

[1] Standard settings with filter 200Hz  
[4] only unipolar output and CAN Bus

[2] Factory-set depending on the application

[3] Other types upon request