

# Laser-Distance-Sensor OPTIMESS M PSD



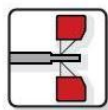
- High measuring rate
- High accuracy
- High immunity against ambient light

The opto-electronic sensor OPTIMESS M PSD is a device for no-contact distance measurement. This sensor distinguishes itself by a great independence of the measurement accuracy on different material surfaces and from the ambient light.

OPTIMESS M PSD 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 PSD (position sensitive detector) by a receiving optical system. The processor integrated in the sensor processes the optical distance information and outputs them as an analog value.



Robotics



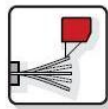
Thickness measurement



Steel industry, industrial automation



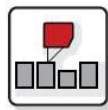
Railroad systems



Vibration measurement



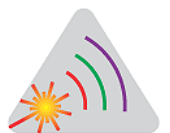
Rubber and tire industry

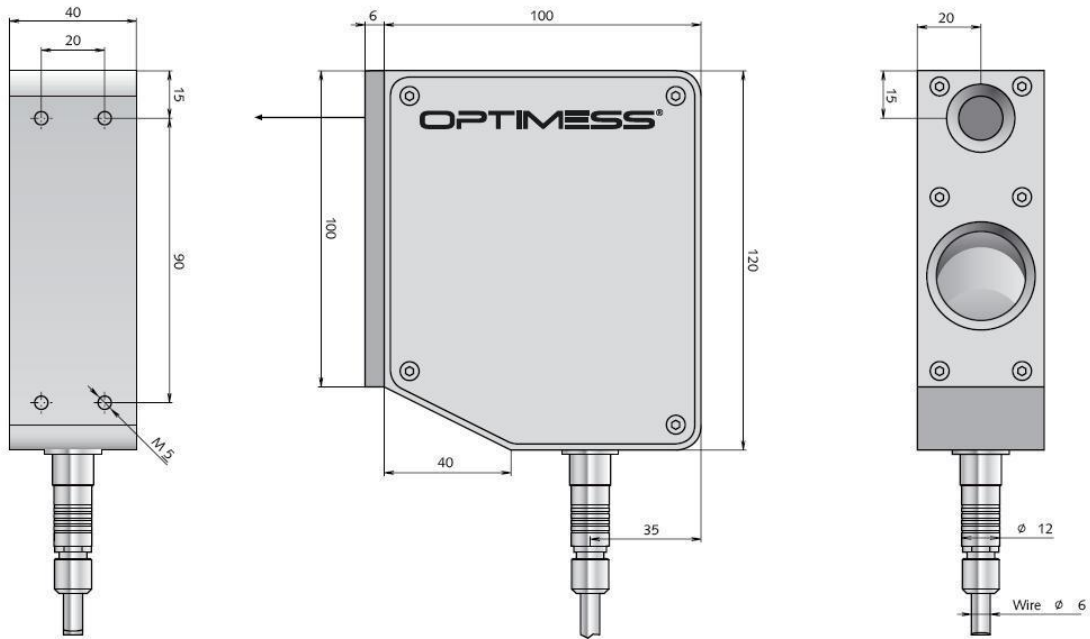


Distance measurement, position control



Car industry



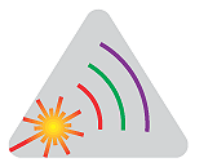


#### Technical data

	OMS 3008	OMS 3020	OMS 3040	OMS 3080	OMS 3120	OMS 3200
Measuring range [mm] [3]	8	20	40	80	120	200
Stand off [mm] [3]	50	100	150	200	300	400
Resolution [mm] [1]	0.004	0.010	0.020	0.040	0.060	0.100
Linearity	≤0.2% FSO					
Reproductibility	≤0.05% FSO					
Bandwidth [2]	10 kHz max.					
Filter [2]	Bessel or Butterworth					
Measuring rate	25 kHz					
Light source	Laser diode					
Spot diameter [2]	0.05-5mm					
Wave-length [2]	660-780nm					
Laser safety class [2]	2 / 3a / 3b					
Photo detector	PSD					
Supply voltage	±15V, ±5% / 150mA					
Output [2]	±5V / ±10V, optional: 0-5V / 0-10V / 0-20mA / 4-20mA / CAN-Bus					
Operating temperature	-20°C bis 50°C (no condensation)					
Dimensions	120 x 100 x 40mm					
Weight	ca. 820g					
Protection class	IP 65 (without protection unit: IP 54)					

[1] Standard settings with filter 200Hz [2] Factory-set depending on the application [3] Other types upon request

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