

Laser distance sensor

OPTImessS1 CCD



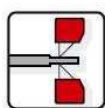
- High measuring rate
- High accuracy
- Digital processing of measured values
- Analog output or CAN bus

The opto-electronic sensor OPTIMESS S1 CCD 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.

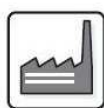
The OPTIMESS S1 CCD works according to the triangulation principle. The laser spot projected by a laser diode via an optical system is represented at an angle on a CCD line by a receiving optical system. The processor integrated in the sensor processes the optical distance information and outputs them as an analog value or via the CAN bus.



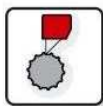
Dynamic contour measurement



Thickness measurement



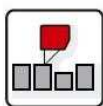
Steel industry, industrial automation



Profile measurement

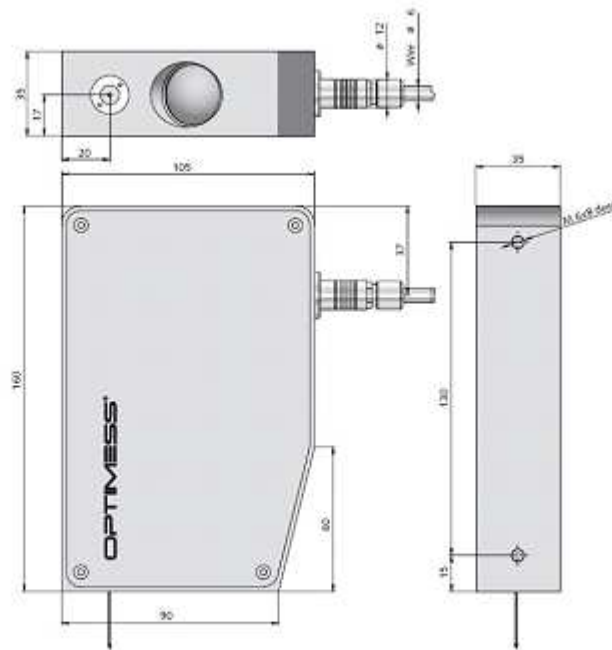


Rubber and tire industry



Distance measurement, position control





Type	OMS 5008	OMS 5020	OMS 5040	OMS 5080	OMS 5120	OMS 5200
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% of range					
Reproducibility	≤ ± 0.03% of range					
Bandwidth [2]	20 kHz max.					
Filter [2]	Digital averaging					
Measuring rate [2]	20 kHz max.					
Light source	Laser diode					
Spot diameter [2]	0.05 - 5mm					
Wave length [2]	660 - 780nm					
Laser safety class [2]	2 / 3R / 3B					
Photo detector	CMOS linear image sensor					
Supply voltage	± 15V / 120mA, ± 5% or 12 - 30V / 120mA [4]					
Output [2]	± 5V / ± 10V / 0 - 5V / 0 - 10V / 0 - 20mA / 4 - 20mA / CAN - Bus					
Operating temperature	-20°C up to 50°C – no condensation					
Dimensions	105 x 160 x 35mm					
Weight	ca. 750g					
Protection class	IP 54					

[1] Standard settings with filter 200Hz

[3] Other types upon request

[2] Factory-set depending on the application

[4] only unipolar output and CAN Bus

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