LOKE MEASURING SYSTEMS

Laser Distance Sensor
LMC-J-0050-x

Precise – Robust – Reflectorless

- Multi-Bus
- Distance measurement with millimeter accuracy
- Accurate positioning
- Motion detection / Contour detection
- Level gauging
- Measures surfaces up to 1200°C
- Width measurement w/o additional equipment

The LMC-J-0050-x is an opto-electronic distance measuring sensor for industrial applications. The device uses a contact less measurement technique based on comparative phase measurement with amplitude modulation. The laser diode has a divergence of 0.6 mrad for measurement with pinpoint accuracy.

The measurement data is available through different interfaces for further processing. A digital switching output and an analog output (4 to 20mA) are also available. Sensor alignment can easily be achieved using the red laser spot.

The sensor is built in an IP 66 housing suitable for heavy industry. It includes a special dust protection chamber, which keeps the sensor window clean much longer. Water cooling and air purge nozzles are optional.

Sensor includes a spring cushioned three point mounting bracket for easy and safe installation. 2 different base plates for horizontal and vertical installation are available.

Features:

- Class 2 Laser for eye safe operation
- Reflectorless measurement possible in most cases
- Millimeter accuracy with most surfaces
- Multiple Interfaces available such as RS232/422 4-20 mA, ProfiBus, Ethernet TCP/IP, WLAN etc.
- Dust and waterproof according to IP 66
- Reduced power consumption
- Compact housing
- Wide application spectrum

Technical Data:

Measuring range*1:	0.2 to 40 m for most natural, diffuse reflecting surfaces. Max. 150 m possible w/target board
Repeatability*2:	≤ ±0.5 mm on whole measuring range
Measuring accuracy*2:	± 2 mm
Measuring resolution:	Depends on scale factor (1 mm @ SF 1; 0.1mm @ SF 10)
Measurement rate:	1 Hz to 5 Hz, 10 Hz, 50 Hz
Connection	clamp contacts, 2 m cable, optional cable with connector
Laser divergence:	0.6 mrad
Laser classification:	≤1 mW under IEC 825-1, Laser class 2 (Red light λ= 650 nm)
Protection class:	IP 66
Supply voltage:	10 to 30 VDC <1.5 W @ 24 VDC
Dimensions:	255 x 90 x 110 mm (L x W x H)
Weight:	approx. 4.3 kg
MTTF:	50,000 hrs (-10°C- +40°C amb. temp.)
Cable bushing:	Standard lateral; Multiple or custom bushing optional
Bracket:	Three-point bracket , spring cushioned for horizontal installation (Type A) Optional for vertical installation (Type B)
Operating temperature:	-10 °C to +60 °C (-40°C with heater and +100°C with cooling housing)

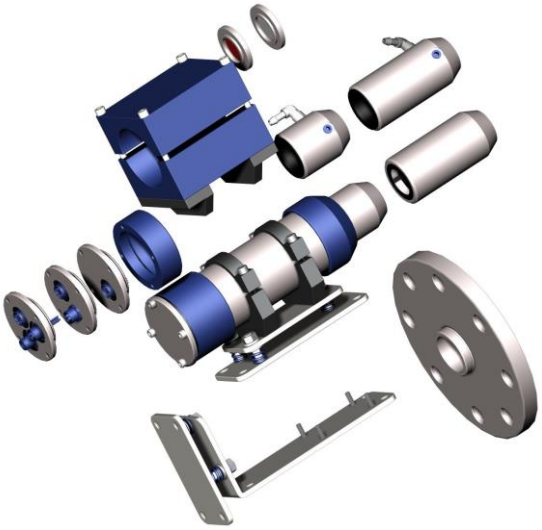
*1	Depending of reflectivity, stray light, atmospheric conditions
*2	Statistical spread 1σ +15°C … +30°C, ±3 mm over the operating temperature

LOKE ENGINEERING

Type	Interfaces	Additional Specification
LMC-J-0050-2-1 **LMC-J-0050-2-2**	RS232, 4 - 20 mA, 1 switching out, 1 tigger RS422, 4 - 20 mA, 1 switching out, 1 trigger	50 Hz 50 Hz
LMC-J-0050-3	ProfiBus, SSI, 1 switching Output, 1 trigger	50 Hz
LMC-J-0050-2-4	EtherNet, 1 switching out, 1 trigger	Webserver 50 Hz
LMC-J-0050-2-5	Wireless LAN, 1 switching out, 1 trigger	Webserver 50 Hz

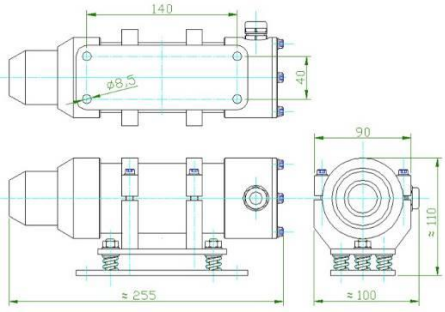
Options:

- Exchange Window
- Double long front tube for better dust and spray material protection
- Water cooling for ambient temp. up to +100°C
- Heat shield
- Air Purge
- Heating for Temperatures down to -40 °C
- Master / slave configuration with signal processing at the master sensor can be used for width measurement (only Ethernet and WLan Types)
- 2 switching outputs
- Plug versions
- Custom made outputs, interfaces and housings
- Vibration protection
- IP 67

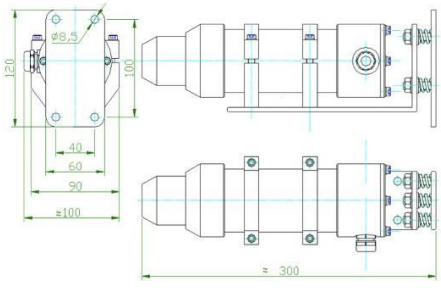


Bracket Types and Dimensions:

Type A:



Type B:



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