LNC LOKE Measuring Systems

Laser Distance Sensor KHU-LMC-J-0050-x

Precise – Robust – Reflectorless

- Multi-Bus
- Measuring distances with millimeter accuracy
- Accurate positioning
- Motion detection / Contour detection
- Level gauging
- Measures surfaces up to 1200°C Width measurement without additional equipment

The KHU-LMC-J-0050-x is an opto-electronic distance measuring module for industrial application. 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 analogue output (4..20mA) are also available. The sensor alignment can easily be achieved using the red laser spot.

The sensor is built in a IP 66 housing which is made for heavy industry area. It includes a special dust protection chamber, which keeps the sensor window much longer clean. As ad on, water cooling and air purge nozzles are available.

It comes including a spring cushioned three point bracket for easy and safe installation. 2 different base plates for horizontal and vertical installation are available.



Technical Data:

Measuring range:	0.2 - 35m for natural, diffuse reflecting surfaces. Max. 150 m possible target board	
Repeatability:	$\leq \pm 0.4$ mm on whole measuring range	
Measuring accuracy:	± 2 mm	
Measuring resolution:	Depends on scale factor (1 mm at SF 1; 0,01mm at SF 100)	
Measurement rate:	1 Hz5 Hz, 10 Hz, 50 Hz, 100 ^{*3}	
Connection	clamp contacts, incl. 2 m cable	
Laser divergence:	0.6 mrad	
Laser classification:	≤1 mW under IEC 825-1, Laser class 2 (Red light)	
Protection class:	IP 66	
Supply voltage:	10 - 30 VDC <1,5 W at 24 VDC	
Dimensions:	255 x 90 x 110 mm (L x W x H)	
Weight:	approx. 4,3 kg	
MTTF	50.000 h	
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 Water cooling)	



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Features:

- Class 2 Laser for eye safe operation
- Reflector less measurement possible in most cases
- Millimeter accuracy with most surfaces
- A lot of different Interfaces are available like RS232/422 4-20 mA, ProfiBus, CANopen, WLAN etc.
- Dust and waterproof according to IP 66
- Reduced power consumption
- Compact housing
- Wide application spectrum

Туре	Interfaces	Additional Specification	Optional
KHU-LMC-J-0050-1-1/2	RS232 / RS422, 4 - 20 mA, 1 switching out, 1 trigger in		
KHU-LMC-J-0050-1M	RS232 & RS422, 4 - 20 mA, 3 switching out, 1 trigger in		50Hz
KHU-LMC-J-0050-2-1/2	RS232 / RS422, 4 - 20 mA, 1 switching out, 1 trigger in	50 Hz	
KHU-LMC-J-0050-3-H	ProfiBus, simple Protocol, Addressing via DIP switches		
KHU-LMC-J-0050-3	ProfiBus, SSI, 2 switching Outputs	50 Hz	
KHU-LMC-J-0050-4	EtherNet, 1 switching out, 1 trigger in	Webserver	50 Hz, 4x I/O
KHU-LMC-J-0050-5	Wireless LAN, 1 switching out, 1 trigger in	Webserver	50 Hz, 4x I/O
KHU-LMC-J-0050-x-100	100 Hz output rate		
KHU-LMC-J-0050-X	Other interfaces on available on request		

Options:

- Exchange Window, red or grey
- Double long front tube for better dust and spray material protection
- Water cooling for 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. F.e used for width measurement (only Ethernet and WLan Types)
- 3 switching outputs
- Plug versions
- Custom made outputs, interfaces and housings

Bracket Types and Dimensions:









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