

MSE-LT200 Laser Distance Measurement Sensors

The MSE-LT200 is a non-contact photoelectronic distance measuring device for industrial applications. It works with principle of comparative phase measurement.

The high precision measurements are near independent of the surface of the measuring object. The red, visible laser beam allows the easy alignment. The MSE-LT200 communicates over serial and analogue interface.

Different types and options of MSE-L200 make it possible to use in extremely situations of different applications.



Key Features

- Millimeter precise measurement on various surfaces
- Long range reflector-less distance measurement
- With additional reflectors on the target object measurements over 100 m
- Operation in extreme ambient temperatures with high precision and range (options)
- Flexible supply voltage range between 9 V and 30 V
 DC with low power consumption
- Safe operation with laser class 2
- Easy adjustment with visible laser beam
- One connection cable for power supply, serial interface, digital signals and analog output
- Customized parameterization over serial interface.
- Measured values in different units, m / mm / yard / feet / inches with free scaling
- Robust, compact housing, easy to install and adjust, protection standard IP 65

Applications

- Near and far distance measurement
- Diameter measurement of rolls / coils
- Fill level measurement
- Position control
- Monitoring of safety-relevant moving parts
- Monitoring of lifting plants / lifting height measurement and positioning of elevators
- Monitoring and positioning of cranes and conveyor systems

Options and Accessory

- Mounting bracket with easy adjustment
- Digital display
- Optional heating
- Different protective housing parts
- Integrated water cooling
- Protective tube with dust protection or air purge.
- Protective window

Technical Data

Measuring Range 1)	0.2 m 30 m on almost all natural surfaces.
Measuring Uncertainty ²⁾	±1 mm ±2 mm (more than 30 m)
Resolution	0.1 mm, scalable
Reproducibility 3)	± 0.5 mm
Measuring Frequency	Depends on version 6 Hz ~ 50Hz
Laser Divergence 4)	0.034°
Laser Class	Laser class 2 acc. to DIN EN 60825-1:2001-11 (650 nm, red)
Operating Temperature	-10°C to 50 °C -30°C to over 100°C with options: Water Cooling / Air Cooling / heating ⁵⁾
Serial Interface 6)	RS 232 / RS 422 / RS 485
Digital Input	External trigger, 3 V – 24 V, programmable delay
Digital Switching Output	Programmable switching threshold and hysteresis, "High-Side" switch with load of 0.5 A
Analog Output	Programmable distance range limits, 4 mA to 20 mA or 0 V to 10 V (option)
Power Supply	9 V 30 V DC
Power Consumption	Max 1.5 W Max 24 W (with optional heating)
Housing Material	Stainless Steel with Aluminum protection tube
Size	Φ 65 x 285 mm or Φ 85 x 285 mm with water cooling housing
Weight	about 2 Kg or 3 Kg with water cooling
Protection Class	IP 65
MTBF	30,000 hours, 24/7, operation temp. +25 °C

- 1) Dependent on target surface reflectance. Can be influenced with extraneous light and atmospheric situation
- 2) Statistical spread 95 %
- 3) Dependent on target reflectance and influence of extraneous light and atmospheric situation
- 4) At a distance of 10 m the beam diameter is 6 mm, at 100 m it is 6 cm
- 5) Please specify optional heating while placing the order if needed
- 6) Please specify the serial interface while placing the order (RS232/422/485)

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