



- Millimetre precise measurement on various surfaces
- Long range reflector-less distance measurement, with additional reflectors on the object over 100m with additional reflectors mounted onto target
- High availability under in the high temperature area with high precision big supply voltage range 10V until 30V DC
- Risk less use because of laser class 2
- Simple alignment with a visible laser class
- Bi-directional data-interface, switching and analogue output
- Simple setup for parameter with a PC or laptop
- Measured values are displayed in meters, decimetre, centimetre, feet, inch... and different resolutions due to free scaling
- Stable and simple to installing housing with protection IP 65
- Profibus DP via UNIGATE Gateway

General Description

The MSE-D150 Laser Distance Measurement Sensor is designed for mobile and stationary distance measurement in a industrial environment. The MSE-D150 works based on comparative phase measurement. To achieve this, it emits visible laser beams in different frequencies. The target being measured returns diffusely reflected light that is subsequently compared with a reference signal. Finally, a microprocessor uses the recorded phase shift to calculate a required distance with mm accuracy.

The sensor MSE-D150 distinguishes itself through a high precision as well as a big independence of the surface of the measured object. The MSE-D150 is design for fast measurement on a white target. The red, well visible laser beam allows a simple alignment.

Applications

- Supervision of crane and conveyors
- Distance and position measurement
- Expletive-stand-measurement
- Supervision of security-relevant parts
- Supervision of walking beam systems / stroke length measurement / position of lifts
- Position control
- Diameter measurement of coils

Accessory

- Grey filter for signal attenuation
- Mounting bracket
- Digital display for analog signals
- Optional temperature controlled heating
- Protective housing
- Protective housing with water cooling
- Protective tube with purge air connector
- Protective window



General Description

Measuring range	0.1 m up to 30 m with natural surfaces, depending on the target reflectance or reflectance more than 100 m achievable.
Measuring uncertainty	± 2 mm under defined measuring conditions ± 3 mm (+15 °C up to +30 °C) ± 5 mm (-10 °C up to +50 °C)
Resolution	0.1 mm, free scalable
Reproducibility	0.5 mm
Measuring time	0.24 to 6 s setup or auto Mode DT 0.1 mode DW with surface 20 ms mode DX with surface (only MSE-D150-50)
Laser divergence	0.6 mrad
Laser class	Laser class 2, to DIN EN 60825-1:2001-11 (650 nm, red)
Operating temperature	-10 °C ... +50 °C -40 °C ... +50 °C (only with -h option)
Storage temperature	-40 °C ... +70 °C
Supply voltage	10 V ... 30 V DC
Power consumption	Ca. 1.5 W, Ca. 24 W (with optional heating)
Serial interface	RS232 or optional RS422, max. Baud rate 38400, ASCII, Setting of measuring functions, scaling, measuring time via commands, display of measured values, internal temperature of the device and error code
Switching output	Programmable switching threshold and hysteresis, "High-Side" switch, maximum load 0.5 A
Digital Input	External trigger, 3 V – 24 V, programmable delay
Analog output	Programmable distance range limits, 4 mA to 20 mA adjustable reaction on error(3 mA, 21 mA or last valid measured value)
Housing material	Aluminum, powder-coated
Size	187 mm × 96 mm × 50 mm
Weight	850 g
Protection class	IP 65
Shock resistance	10 g / 6 ms (DIN ISO 9022-3-31-01-1)
MTBF	30,000 hours, 24/7, operation temp. +25 °C
Mounting	4 drill holes for M6 screws, 100 mm x 85 mm

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