

# MSE-LT150



# The MSE-LT150 is Laser sensor to measure distances with pinpoint accuracy.

- Visible Laser. (Class II) Easy to adjust.
- On natural surfaces up to 30m and with reflector ~130m.
- Cold and hot materials surface.
- Provides standard accuracy of +/- 2mm.
- RS232 or RS422 and RS485, Ethernet, ProfiNet, ProfiBus.
- Programmable 4-20 mA analog output.
- Programmable digital output & offset. External trigger Input.

### **General Description**

Provides high accuracy and great reach under extreme outdoor conditions.

- Works in a wide range of operating voltages from 12 VDC to 30 VDC from an on-board vehicle supply point, an industrial direct voltage supply net or a DC power pack.
- Features consistently low power consumption of <1.5 W
- Up to 30 m reach for distance measurement, with potential for more than 100 m reach if additional reflectors are mounted onto the target
- RS232 (standard) interface port for input of measuring functions and commands from, and output of measured values to, and from PC or a laptop.
- Switching output and analog output are separately programmed.
- Switching output with adjustable limit and hysteresis.
- Measured values can be displayed in meters, decimeters, centimeters or in feet and inches.

### **Typical Applications**

Distance and position measurement & control.

**Product Material dimensions**Length, width, level and position of product.

Material Handling Automated Storage/Retrieval Systems and positioning of mobile equipment.

Metals IndustryMeasure/Position slab, billet, bloom or bar. (hot option, available)Crane ControlPositioning of cranes & crane trolleys. Crane collision avoiding.Collision AvoidanceDistance with alarm between vehicles using reflective target

Level measurement Level of solid and fluid materials (also hot fluid like glass, fluid Aluminium etc. / option)

Diameter measurement of coils Super vision of crane and conveyors

Air Turbo Cooling with Heat-Protection.

#### **Examples of options for differen applications.**

Hot Aluminium Level with Temperature Alarm.











#### **Housing Specifications**

Housing: Aluminum / IEC IP66, DIN, 89011

Weight w/o Cable: 1.9 Kg

Connector: IP65 Plug/Socket

Cable Length: 2 m Standard, up 20 m available Cooling: Air cooling with air purged /

water cooling with air purged.
Turbo air cooling available too.

#### **Air & Water Specifications**

Air Pressure: Air purge at < 0,3 bar for normal conditions
Air cooling 1 to 3 bar for very difficult condition

Water Pressure: Normally 0,3 to 1 bar. 3 bar maximum! Water Volume: Regulated between 1 - 2 liters/min.

With 11/min by Ambient Temperature </= 60°C

and 2l/min by Ambient Temperature < 70°C

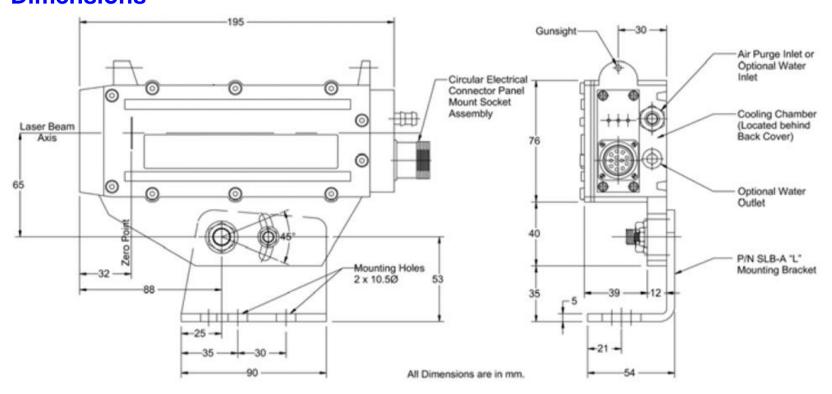
Water Temp.: For Ambient Temperature up to 60°C, use ambient water </= 30°C

For Ambient Temperature from  $60^{\circ}\text{C}$  up to  $70^{\circ}\text{C}^{*}$ , 2I / min.

use water chilled < 20°C, 2I / min

\*- Ask us for special or different solutions of cooling options.

#### **Dimensions**



## **General Specification**

Operating range 1) (Type of surface)	0.1 m up to 30 m with natural surfaces, depending on target reflectance or with reflectors up to 130 m achievable.	Supply Voltage	1030 VDC
		Power Consumption	1 Watt Operating, 0.4 Watt in Standby
Accuracy (according to surface reflectivity) 2)	± 2 mm for 15°C to 30°C	Operating Temperature	-10°C to +50°C no cooling
	± 5 mm (-10 °C up to +50 °C)		-10°C to +60°C water / air turbo cooling
Repeatability	±0.5 mm		-40°C with heating, optional.
Scale (programmable)	Output can be m, cm, mm or yard, feet, inch	Product Temp. Limit	Standard 800°C (Hi-Temp optional model up to 1200°C)
Laser Wavelength	650nm, Visible Red	Programming	via Hyper-terminal and Supplied Software
Laser Classification	Safety Class 2 (DIN EN 60825-1), Class II	Auto Distance Tracking	Can be programmed to start at power on
Laser Power	≤ 1mW	Trigger Input	External trigger Input
Laser Divergence	0.6 mrad	Digital Output  High value output with adjustable threshold, logic & hysteresis. 0.5 A limit	
Laser angle tolerance	Better than ± 1° to the ground plane		ogic & nysteresis. U.5 A limit
MTBF	30,000 hours, 24h / 7days, operation temp. +25 °C	Analog Output	Programmable 4-20mA, 16 BIT
Indication	Power: red LED, receive / send: green / yellow LED		

<sup>1).</sup> Dependent on target reflectance, stray light influences and atmospheric conditions

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<sup>2).</sup> Statistic spread 95 %