MODULOC SYSTEM ENGINEERING

MSE-D301

- Broad working range
- Great reach, also without reflectors
- Very short times to measure
- Programmable serial, digital and analogue outputs
- Allows synchronisation with external devices
- Compact design shape, IP67 protection
- Integrated red Pilot Laser, optionally telescope sign for alignment
- Easy to install and operate

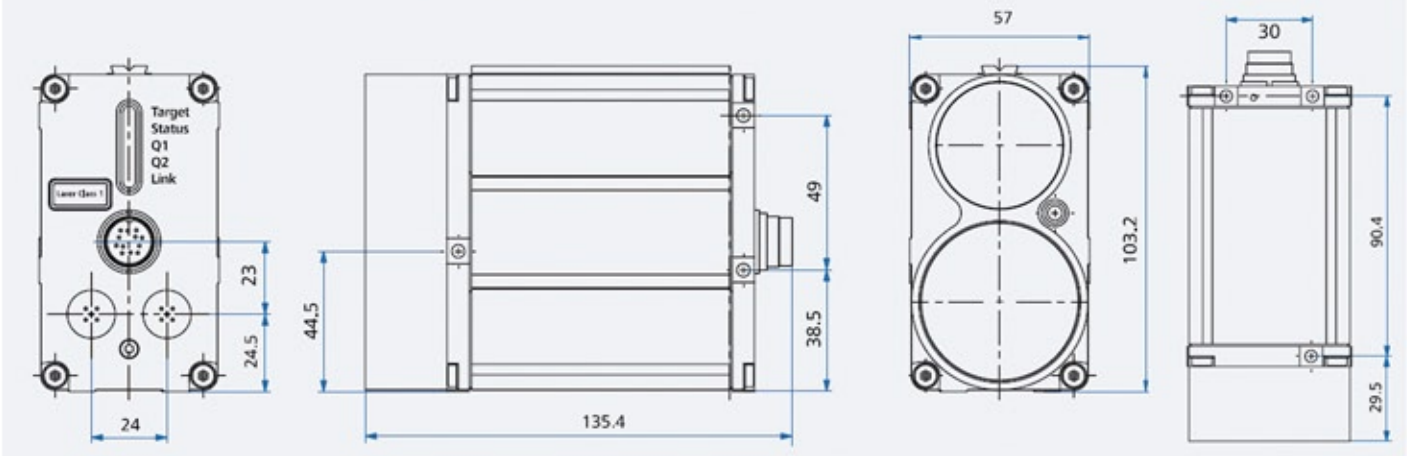
Product Description

The new MSE-D301 Laser distance sensor measures distance and speed of natural targets without a reflector. A reflector can be used for increasing the measuring range. The sensor needs only a very short time to measure; it facilitates distance measurement to or from moving objects. The laser pulse's time-of-flight measurement principle which it uses is specifically suitable where great distances have to be measured and for applications in harsh industrial environments.

With the compact design shape, simple setup and configured with standard interfacing facilities, the MSE-D301 can easily be installed. For interfacing an analogue output, 2 digital outputs and a serial interface RS232 or RS422 are available.

Standard MSE-D301 delivery includes integral heating, a status display and a red Laser pointer. A modular setup allows for easy complementation with accessories or special models as may be required in particular applications.

Dimensions



General Specification

Application	**Distance-measurement for solid surfaces without reflector**
Measuring range	**0.5 m ... 300 m** for natural surfaces **0.5 m ... 3000 m** with target board
Measuring accuracy	± **20 mm** (at 2 kHz measuring rate and at 100 Hz output rate) ± **60 mm** (at 2 kHz measuring and output rate)
Resolution	**1 mm**
Measuring time	**0.5 ms** (Standard models), Option 0.1 ms
Measuring range for speed	0 m/s ... 100 m/s (Time to measure 0.1 s ... 0.5 s)
Measuring Laser	905 nm (infrared), Laser Class 1, EN 60825-1:2003-10
Pilot Laser	650 nm (visible red), Laser Class 2, ≤1 mW (on, off, blinking)
Operating modes	Single and continuous measurement with average, ext. triggering
Serial interface	**RS232 or RS422** • Transfer rate 1.2 kBaud ... 460.8 kBaud, ASCII, 8N1 • Programming with Windows terminal program (e.g. MSETool or HyperTerminal) • programmable automatic start of measurement after switching on
Analog output	**4 mA up to 20 mA current output** • programmable distance range limits • load resistance ≤ 500 Ω
Digital switching output	**2x „high-side switch“** • max. load capacity 0,2 A, permanent short-circuit-proof • adjustable windowing functionality
Trigger input	• max. trigger pulse 30 VDC • trigger edge and delay adjustable
Supply voltage	**10 up to 30 V direct voltage**
Power consumption	< 5 W (operation without heating) 11.5 W (operation with heating at 24 V)
Operating temperature	**-40 °C up to +60 °C**
Storage temperature	-40 °C up to +70 °C
Humidity	15 % ... 90 %
Dimensions	136 mm x 57 mm x 104 mm
Weight / protection class	approx. 800 g / IP 67
EMV	EN 61000-6-2 and EN 55011
Shock resistance	10 g / 6 ms persistence shock DIN ISO 9022-3-31-01-1
Scope of delivery	Sensor with prefabricated cable 2 m, connector 1x 12-pole (BINDER series 723) M18; printed user manual; CD with test version of MSETool and documentation
Options	Cable with varied length 2m, 5m 10m, connecting box, Profibus gateway, alignment telescope RED DOT, protection equipment on customer demand

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