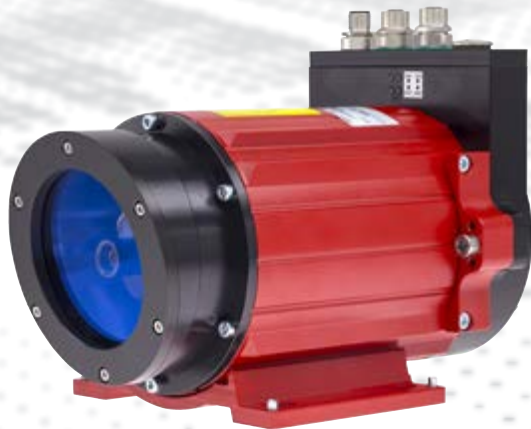


Laser distance measurement



Laser Distance Measuring Systems



Measurement over long distances without contact and fast enough for closed-loop control

Laser distance measuring systems from TR-Electronic are powerful optical sensors, which enable measurement of long distances without contact. The measuring system comprises a laser light source, light collector, electronic evaluation and data interface.

Our laser distance measuring systems LE200 enable absolute and wear-free measurement of long distances up to 240 m, which can then be output via SSI, field bus interface or industrial ethernet. Our barcode positioning systems even enable an absolute measuring distance of 10,000 meters.

Using our in-house laser reference measuring section we can compare our laser measuring systems of up to 240 m with a reference system and also linearize them accordingly. We can thus achieve an absolute repeatability of ± 2 mm at speeds which are commonplace in high-rack warehouses.

For shorter measuring lengths, the LE25 proves its strengths in the measuring range from 0.2 to 48 m.

Measurement systems LLB502 measure on quite all surfaces with up to 100 m distance, with corresponding reflector up to 500 m. LLB502 provide analog and SSI, with an optional interface module, fieldbusses and industrial ethernet is available.



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Laser Distance Measuring Systems – LE200 / LE25



Measurement over long distances without contact and fast enough for closed-loop control

Particularly in the area of modern warehouse setups, such as shelf-stacking devices, transfer belts and crane systems, a powerful, decentralized measuring and control system for simple project processing and quick configuration makes all the difference. Movements up to 240 m/48 m are recorded with the LE200/LE25 laser distance measuring device. The visible red light laser facilitates setup and adjustment of the measuring system. A continuous light beam is used during operation. With just 1 millisecond of measuring cycle time, the LE200 can be directly used for position control.

- _ Robust design
- _ Records linear movement patterns
- _ Contact-free and wear-free distance measurement
- _ Distances up to 48 m, 125 m, 170 m, 195 m, 240 m
- _ Flexible programming
- _ Option with Integrated heating
- _ Option with high-temperature Laser diode to 60 °C ambient temperature
- _ Option with external cooling for 100 °C ambient temperature
- _ Customized adaptations upon request

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Laser Distance Measuring Systems – LLB502



Non-contact measurement on natural surfaces

Laser distance measuring systems LLB502 can measure up to 100 m on natural surfaces without a special target plate. The measuring time and the maximum speed of the target depend on the surface. With a specific reflector plate, distances up to 500 m can be measured.

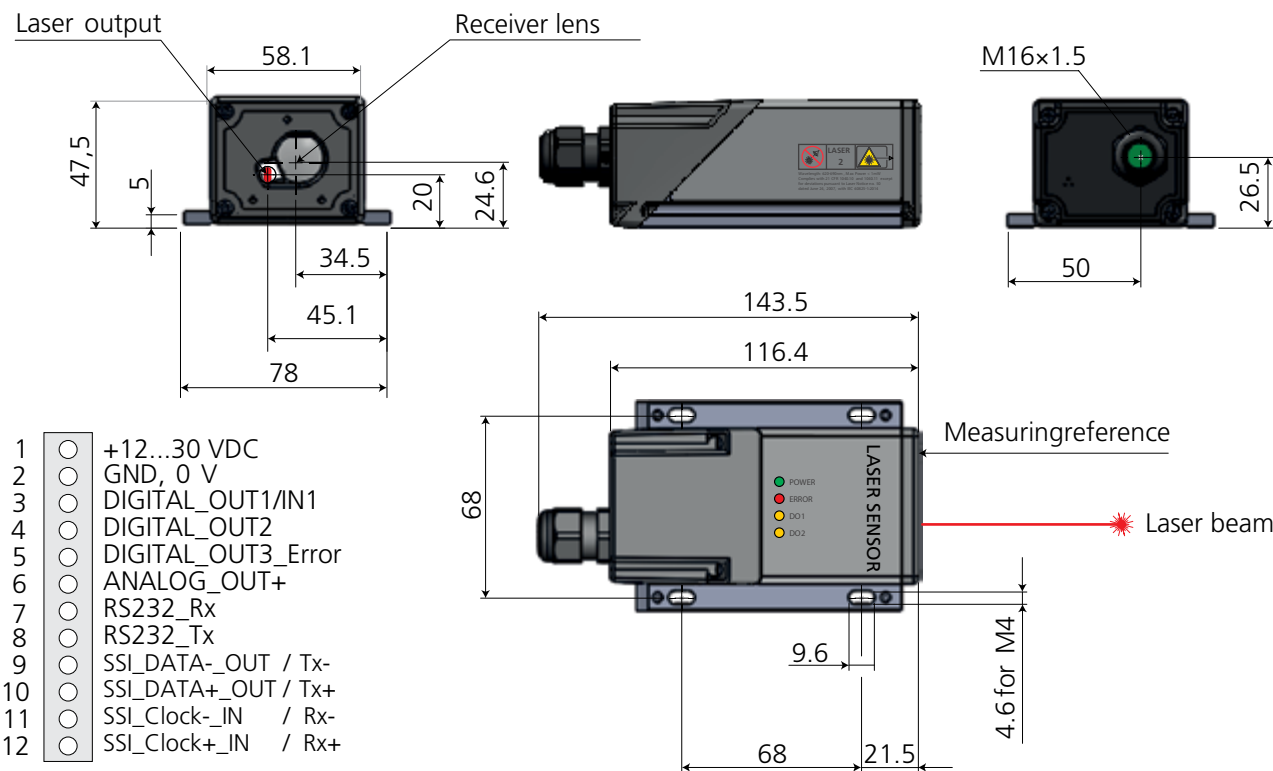
- _ Analog and SSI interface
- _ Interface Modules Ethernet/IP, PROFINET-IO, EtherCAT
- _ Detection of positions
- _ Non-contact distance measurement
- _ Distance measurements on natural surfaces:
 - _ max. 100 m
 - _ with reflector panel max. 500 m
- _ Programmable

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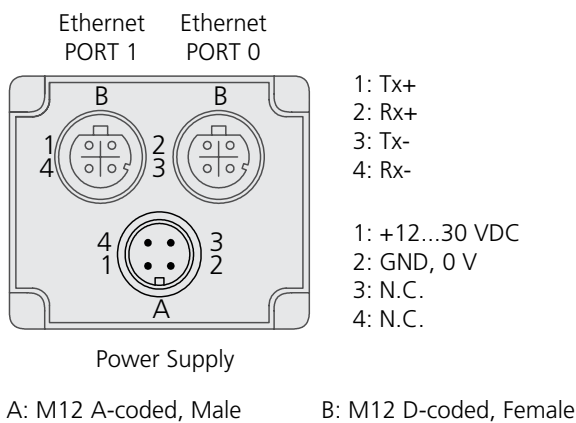
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Dimensional Drawings

LLB502
Option: Ethernet hood



Optional Ethernet connection caps



Ethernet/IP: LLB502-20700
PROFINET-IO: LLB502-20800
EtherCAT: LLB502-20900

Dimensions:
68 mm × 58 mm × 47 mm

Weight:
0.090 kg



Barcode Positioning System – BE901



Non-contact measurement up to 10 km

Barcode positioning systems of type BE901 are optical measuring systems which use visible red laser light to determine the position of the BE901 relative to a permanently mounted barcode tape. Typically the BE 901 is mounted on a (rail-) guided vehicle, whose position is to be determined. The position information is determined to within a millimeter using the information of the fixed barcode tape and made available to the primary system.

- _ Interfaces: SSI, PROFIBUS and PROFINet
- _ Easy installation and activation
- _ Movements (curved systems)
- _ Non contact position measurement
- _ Position detection up to 10,000 m
- _ Parameterizable via USB

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