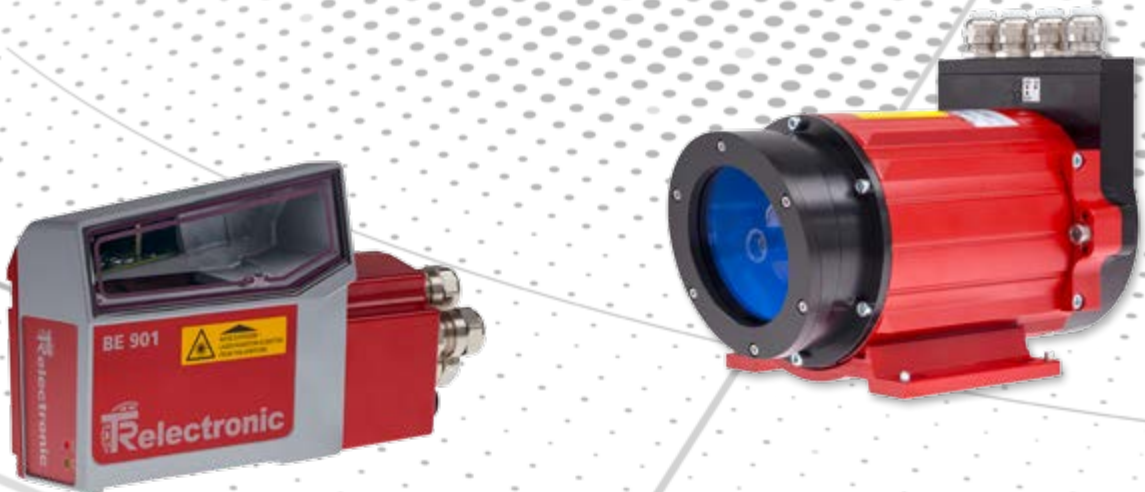
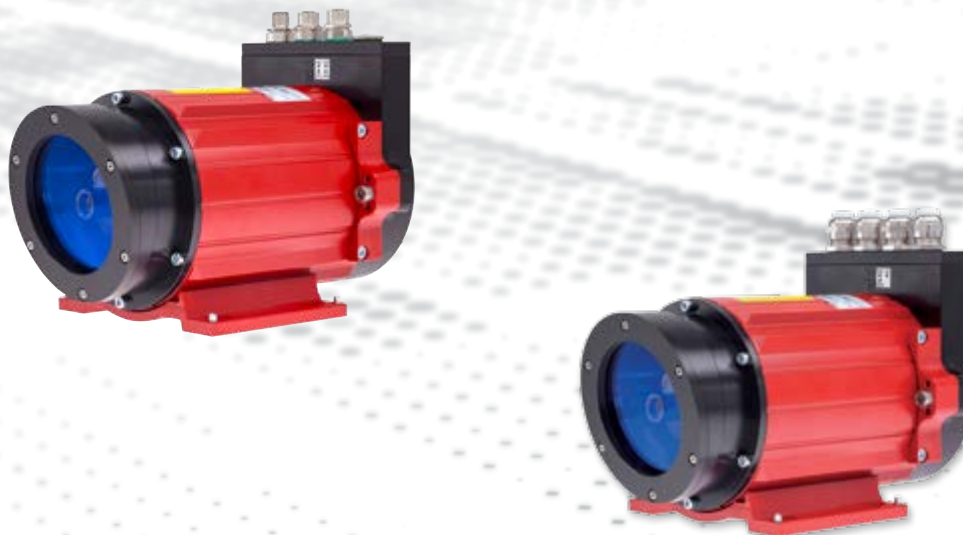


Laser distance measurement



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 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. In addition: 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 ± 1 mm at speeds which are commonplace in high-rack warehouses.



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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 are recorded with the LE-200 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 LE-200 can be directly used for position control.

- _ Robust design
- _ Records linear movement patterns
- _ Contact-free and wear-free distance measurement
- _ Distances up to 125 m, 170 m, 195 m, 240 m
- _ Flexible programming
- _ Option with Integrated heating
- _ Option with high-temperature Laser diode for 70°C ambient temperature
- _ Option with external cooling for 100°C ambient temperature
- _ Customized adaptations upon request

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Position detection for closed loop application up to 240 m

Product	LE200	LE200 – long range	LE25
			
Supply voltage	18 ... 27 VDC	18 ... 27 VDC	18 ... 27 VDC
_ Integrated heating	24 ... 30 VDC	24 ... 30 VDC	24 VDC ± 5 %
Current consumption, no load	< 350 mA	< 350 mA	≤ 150 mA
_ Integrated heating	< 2,5 A	< 2,5 A	24 W
Measuring range	0,2 – 125 m	0,2 – 170 m, 195 m, 240 m	0,2 - 25 m, 0,2 - 48 m
Linearity deviation (12 m, standard)	±3 mm	±3 mm	±2 mm
Reproducibility	±2 mm	±2 mm	±1 mm
Light source	Laser diode, red light	Laser diode, red light	Laser diode, red light
Wave length λ	670 nm	670 nm	670 nm
Radiant power	Pmax < 1 mW	Pmax < 1 mW	Pmax < 1 mW
Laser protection class	2	2	2
Measurand output/refresh rate	1.000 values / s	1.000 values / s	1.000 values / s
Integration time	1 ms	1 ms	1 ms
Working temperature	0 ... +50 °C	0 ... +50 °C	0 ... +50 °C
Working temperature (+ heating)	-30 ... +50 °C	-30 ... +50 °C	-30 ... +50 °C
Storage temperature	-20 ... +75 °C (dry)	-20 ... +75 °C (dry)	-20 ... +75 °C (dry)
Protection class	IP65	IP65	IP65
Vibration	<50m/s ² , sine 50 ... 2,000 Hz	<50m/s ² , sine 50 ... 2,000 Hz	<50m/s ² , sine 50 ... 2,000 Hz
Shock	<300m/s ² , half sine 11 ms Hz	<300m/s ² , half sine 11 ms Hz	<300m/s ² , half sine 11 ms Hz
Interface (others on request)	        	        	   
Weblink	www.tr-electronic.com/s/S007232	www.tr-electronic.com/s/S007232	www.tr-electronic.com/s/S007232
QR-Code			

Can't find the right variant? Please contact us (info@tr-electronic.de)

Suggested Products

Ordering code	Range	Delivery
LE200 SSI		
2200-04002	50 m	with reflector 200 × 200 mm
2200-01002	170 m	with reflector panel 554 × 480 mm
2200-02002	195 m	with reflector panel 554 × 480 mm
2200-03002	240 m	with reflector panel 554 × 480 mm
2200-00002	125 m	with reflector 200 × 200 mm
LE200 PROFIBUS+SSI		
2200-04102	50 m	with reflector 200 × 200 mm
2200-01102	170 m	with reflector panel 554 × 480 mm
2200-02102	195 m	with reflector panel 554 × 480 mm
2200-03102	240 m	with reflector panel 554 × 480 mm
2200-00102	125 m	with reflector 200 × 200 mm
LE200 Interbus S		
2200-01202	170 m	with reflector panel 554 × 480 mm
2200-00202	125 m	with reflector 200 × 200 mm
LE200 CANopen		
2200-04302	50 m	with reflector 200 × 200 mm
2200-01302	170 m	with reflector panel 554 × 480 mm
2200-02302	195 m	with reflector panel 554 × 480 mm
2200-03302	240 m	with reflector panel 554 × 480 mm
2200-00302	125 m	with reflector 200 × 200 mm
LE200 DeviceNET		
2200-04402	50 m	with reflector 200 × 200 mm
2200-02402	195 m	with reflector panel 554 × 480 mm
2200-03452	240 m	with reflector panel 554 × 480 mm
2200-00402	125 m	with reflector 200 × 200 mm
LE200 Ethernet/IP		
2200-01702	170 m	with reflector panel 554 × 480 mm
2200-02752	195 m	with reflector panel 554 × 480 mm
2200-03702	240 m	with reflector panel 554 × 480 mm
2200-00702	125 m	with reflector 200 × 200 mm

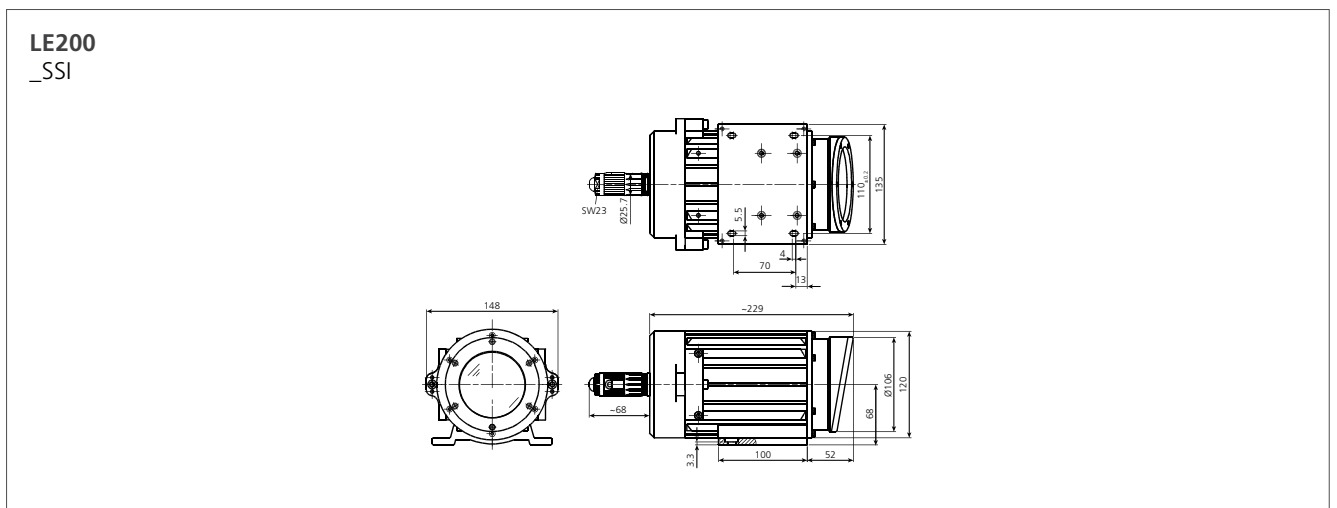
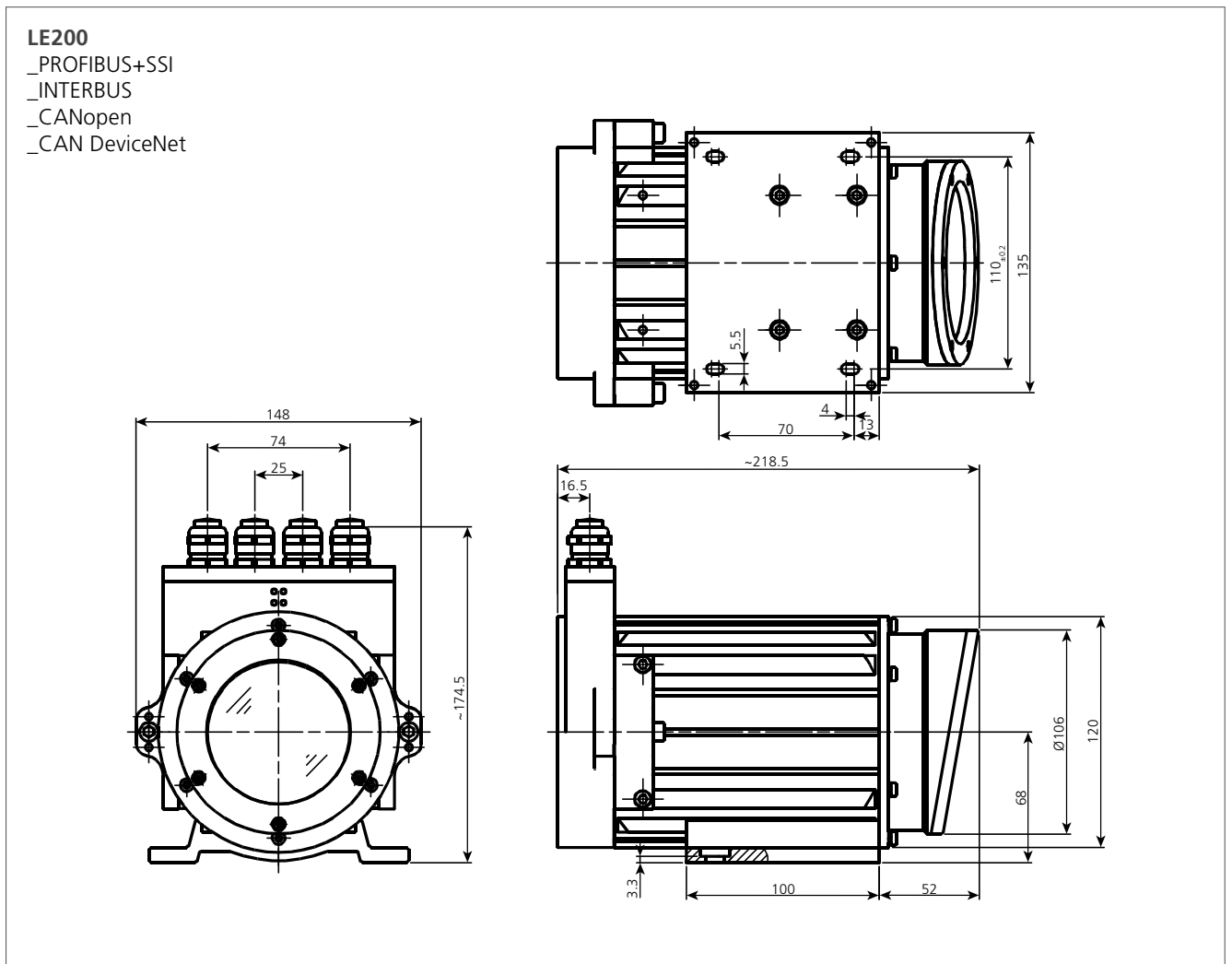
For further product information simply enter the order number in the search field at www.tr-electronic.com.

Suggested Products

Ordering code	Range	Delivery
LE200 PROFINET		
2200-04802	50 m	with reflector 200 × 200 mm
2200-01802	170 m	with reflector panel 554 × 480 mm
2200-02802	195 m	with reflector panel 554 × 480 mm
2200-03802	240 m	with reflector panel 554 × 480 mm
2200-00802	125 m	with reflector 200 × 200 mm
LE200 EtherCAT		
2200-00902	125 m	with reflector 200 × 200 mm
LE25 SSI		
2600-00002	25 m	with reflector 100 × 100 mm
2600-01002	48 m	with reflector 100 × 100 mm
LE25 PROFINET+SSI		
2600-00800	25 m	with reflector 100 × 100 mm
2600-01800	48 m	with reflector 100 × 100 mm
LE25 PROFINET		
2600-00802	25 m	with reflector 100 × 100 mm
2600-01802	48 m	with reflector 100 × 100 mm
LE25 Ethernet/IP		
2600-00702	25 m	with reflector 100 × 100 mm
2600-01702	48 m	with reflector 100 × 100 mm
LE 25 EtherCAT		
2600-00902	25 m	with reflector 100 × 100 mm
2600-01902	48 m	with reflector 100 × 100 mm
LE 25 EtherCAT+SSI		
2600-00900	25 m	with reflector 100 × 100 mm

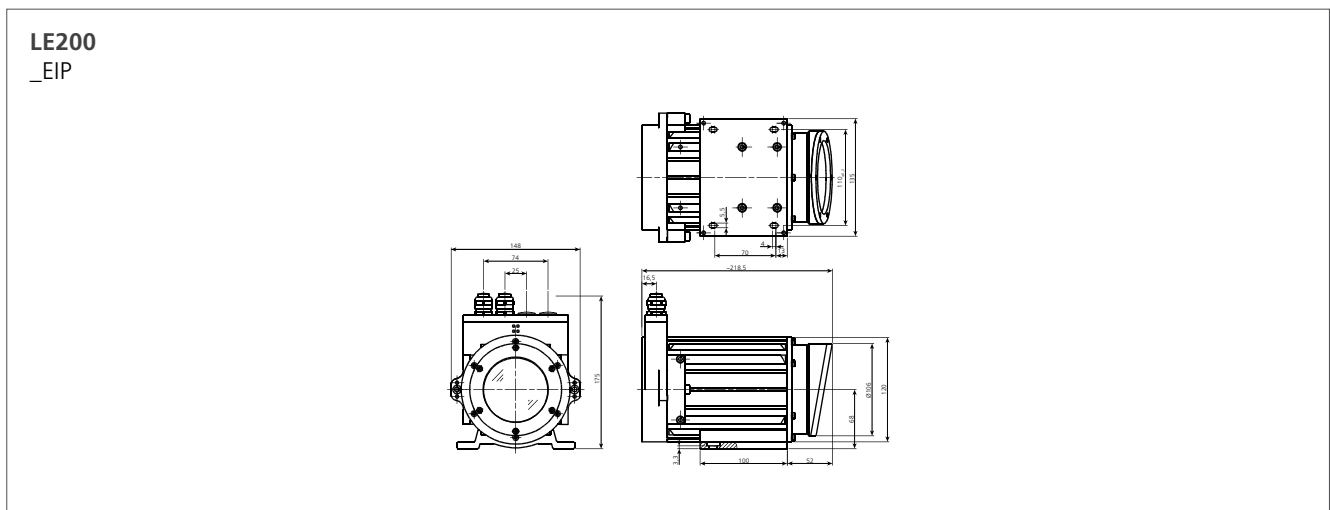
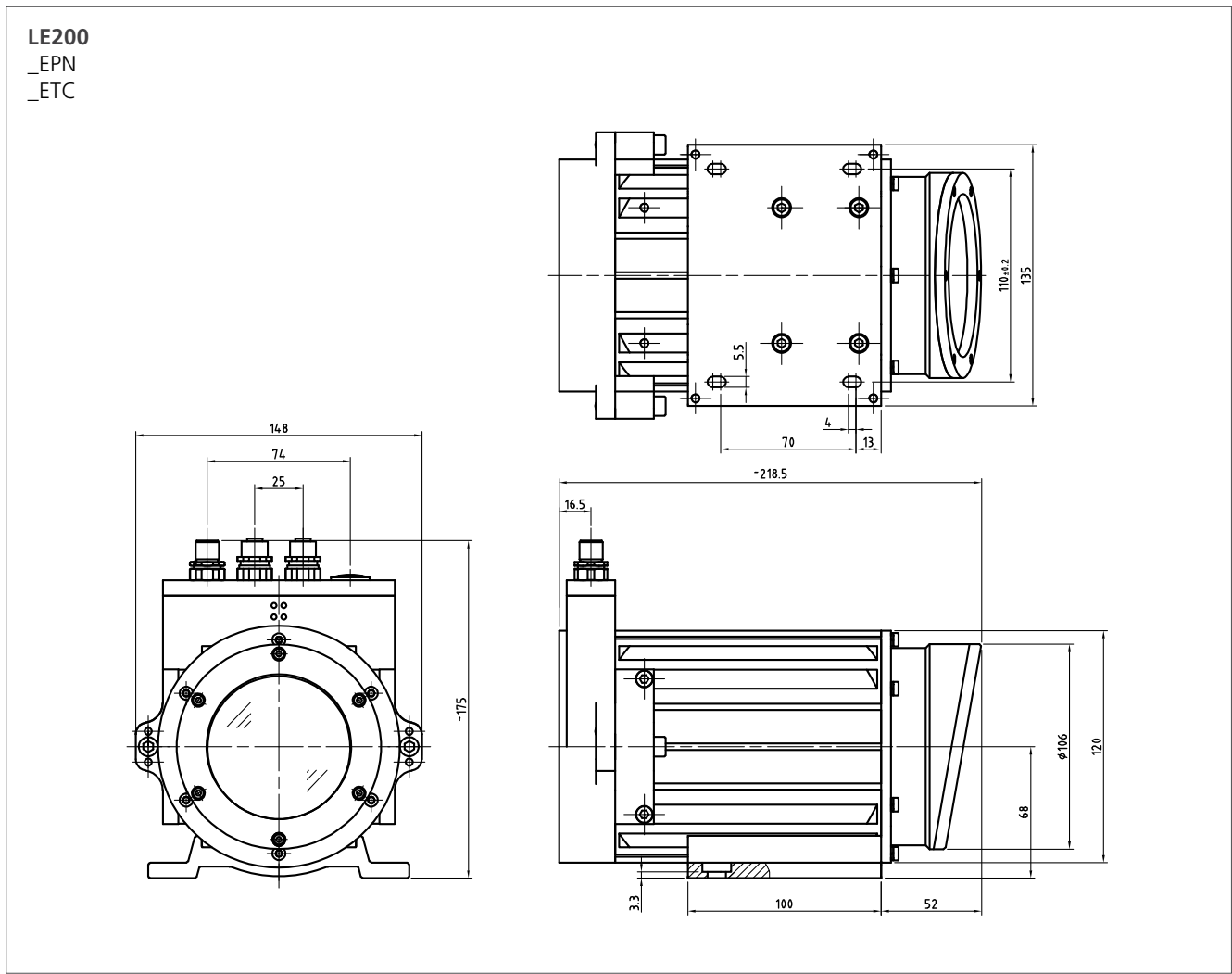
For further product information simply enter the order number in the search field at www.tr-electronic.com.

Dimensional Drawings



Illustrations are schematic diagrams. Binding dimension drawings and CAD data for specific order numbers at www.tr-electronic.com or on request.

Dimensional Drawings

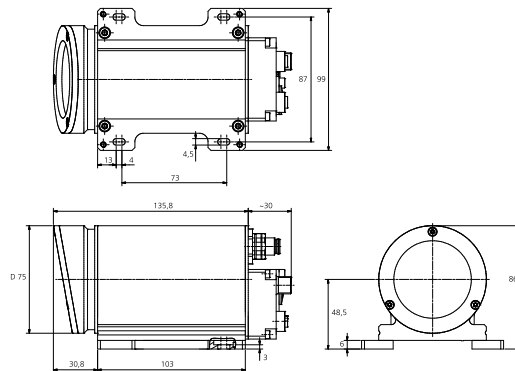


Illustrations are schematic diagrams. Binding dimension drawings and CAD data for specific order numbers at www.tr-electronic.com or on request.

Dimensional Drawings

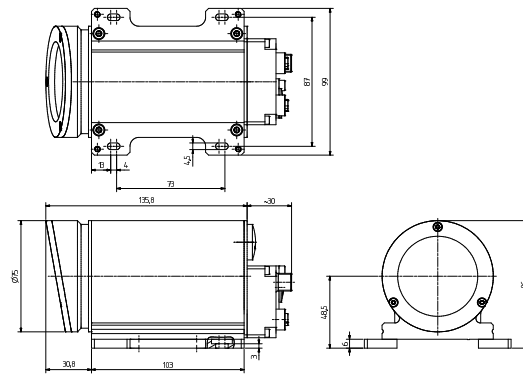
LE25

_PROFINET+SSI
 _EtherCAT+SSI
 _Ethernet/IP+SSI



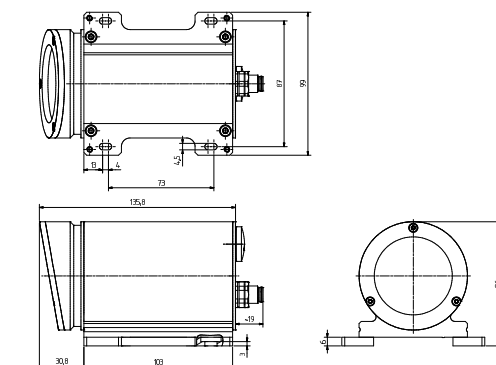
LE25

_PROFINET
 _EtherCAT
 _Ethernet/IP



LE25

_SSI



Illustrations are schematic diagrams. Binding dimension drawings and CAD data for specific order numbers at www.tr-electronic.com or on request.



Barcode Positioning System – BE901



Non-contact measurement up to 10 km






Barcode positioning systems of type BE-901 are optical measuring systems which use visible red laser light to determine the position of the BE-90 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 und PROFIBUS
- _ Easy installation and activation
- _ Movements (curved systems)
- _ Non contact position measurement
- _ Position detection up to 10,000 m
- _ Parameterizable via USB

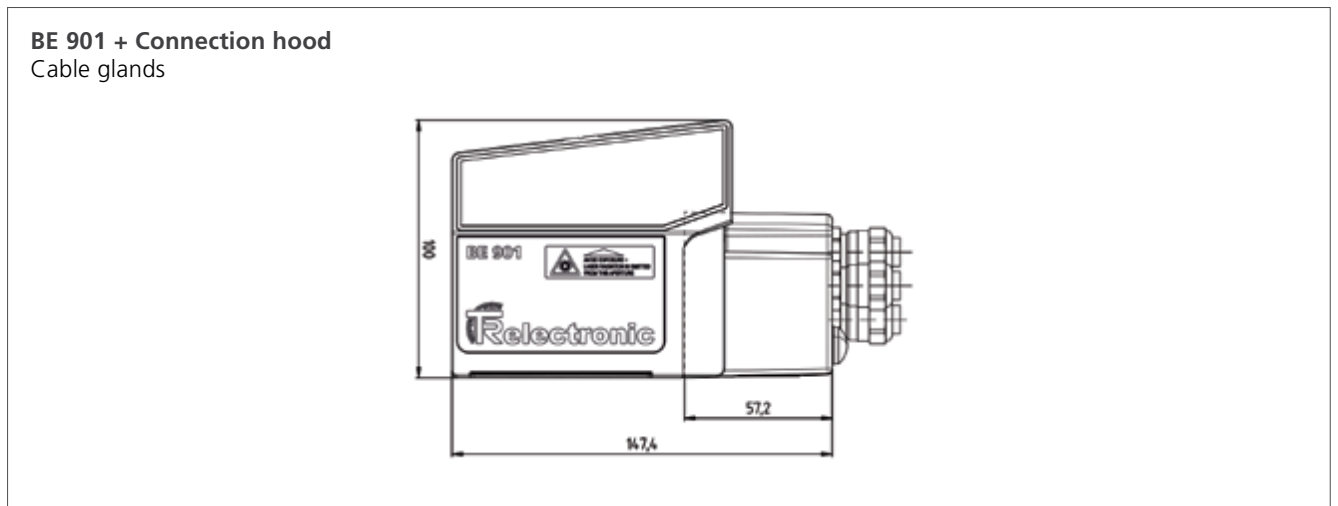
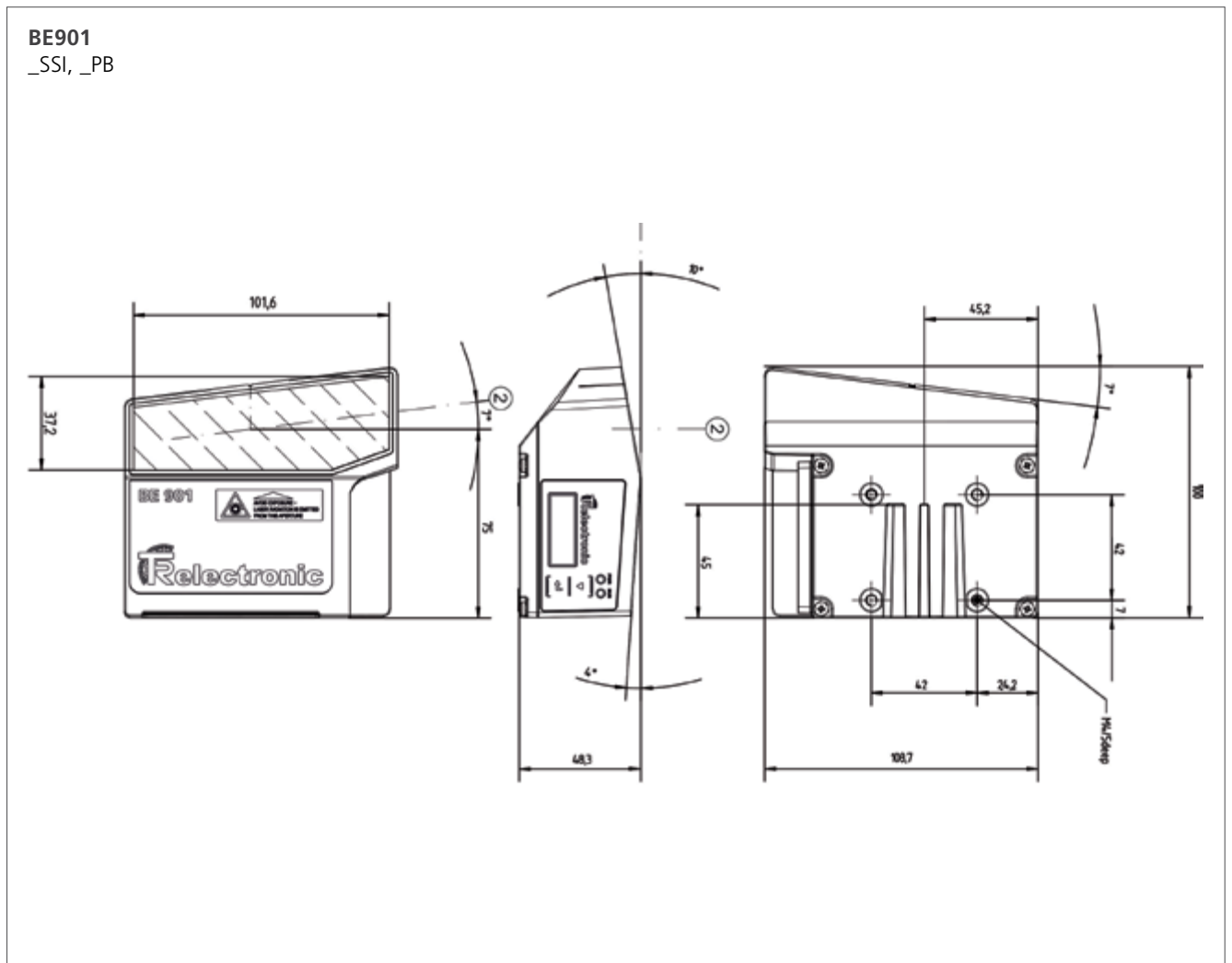
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Barcode Positioning System

Product	BE901 - SSI	BE901 - PB
		
Supply voltage	10 ... 30 VDC	10 ... 30 VDC
Power consumption	3,2 W	5 W
Range	10.000 m	10.000 m
Scanning rate		
Reproducible accuracy		
Integration time		
Measurement value output	500 values/sec.	500 values/sec.
Scanning depth	90 ... 170 mm	90 ... 170 mm
Light source	Laser diode, 655 nm	Laser diode, 655 nm
Housing	Die-cast aluminium	Die-cast aluminium
Mass	580 g without connection block	580 g without connection block
Working temperature	-5...+50 °C	-5...+50 °C
Working temperature (+ heating)	-35 ... +50 °C	-35 ... +50 °C
Air humidity	max. 90% rel. humidity	max. 90% rel. humidity
Protection class	IP65	IP65
Vibration		
Service Interface	USB	USB
Interface (others on request)	SSI	
Weblink	http://www.tr-electronic.com/s/S011970	http://www.tr-electronic.com/s/S011969
QR-Code		

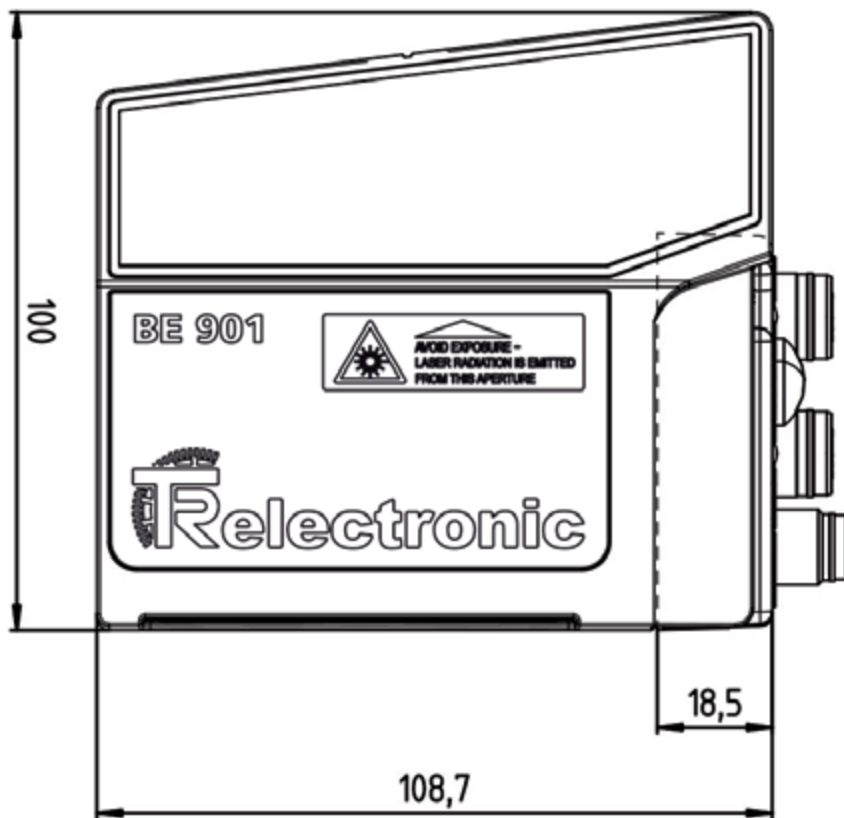
Dimensional Drawings



Illustrations are schematic diagrams. Binding dimension drawings and CAD data for specific order numbers at www.tr-electronic.com or on request.

Dimensional Drawings

BE 901 + Connection hood
M12

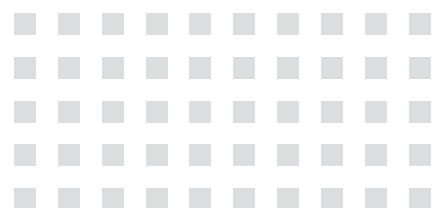


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