

LE-200 PROFIBUS + SSI

Order-#: 2200-00102



Stock photo



Advantages

- Customer-specific solutions
- Distances 125/170/195/240m
- Flexible programming
- Further interfaces available
- Measures linear movements
- Rugged construction
- Wear-free detection

Technical data for 2200-00102

RESOLUTION	1,0
MEASURING RANGE	125M
INTERFACE	PROFIBUS DP+SSI
CODE	PROGRAMMABLE
OUTPUT LEVEL	RS485
SUPPLY VOLTAGE	18-27V
CONNECTOR TYPE	4XM16X1,5
CONNECTOR-POSITION	RADIAL
TEMPERATURE RANGE	0-50°C
PROTECTION Class	IP65
LASER PROTECTION CLASS	2
OPTIONS ENC	12MBAUD
	FULL STROKE LINEARIZED
	PROGRAMMABLE
REFLECTIVE-FOIL	YES
WATER COOLING	NO
PINOUT NO.	TR-ELE-TI-D-0007
DRAWING NO.	04-K2200-002
DOCUMENTATION NO	DOKUMENTE

Subject to change.

LE-200 PROFIBUS + SSI LINEARISIERT

Order-#: 2200-00102

14.5.2020 / 010203020002020199

General data for K-LE200-PB-1

Characteristics - Validity	Min. operation time > 30 min
Supply	
- Supply voltage	18...27 VDC \pm 5%
Current consumption no load	\leq 350 mA
Integrated heating	
- Equipment	Option
- Nominal voltage	24 VDC \pm 5 %
- Nominal power	48 W
Measuring principle	Phase shift measurement
Measuring length	
- Measuring against	Reflector foil
- Standard measuring range	0.2...125 m
- Range extension 1	170 m
- Range extension 2	195 m
- Range extension 3	240 m
Resolution	0.1 mm physically
Linearity deviation	\pm 3 mm \leq 12 m, absolute \pm 5 mm FS, absolute
- FS:	Full-Scale
Reproducibility	\pm 2 mm
Light source	
- Laser diode	Red light
- Wave length λ	670 nm
- Laser protection class	2
- International safety standard	IEC 60825-1
- American safety standard	FDA 21CFR 1040.10 / 1040.11
- American safety standard	observe "Laser-Notice No. 50"
- Radiant power P	\leq 1 mW
Measurand output/refresh rate	1000 Values/s
Integration time	1 ms
PROFIBUS - Interface	
- PROFIBUS-DP V0	IEC 61158, IEC 61784
SSI - Interface	
- Equipment	Optional interface
- SSI-Clock input	Optocoupler
- SSI-Data output	RS-422, 2-wire
- SSI-Clock frequency	80...820 kHz
Transmission rate	
- Specific value	9.6...12000 kbit/s

Subject to change.

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General data for K-LE200-PB-1 continuation

Parameter/Function, changeable	Addressing
	Resolution
	Output code
	Error outputs
	Intensity parameter
	Preset parameter
	Adjustment - Parameter
	SSI-Parameter
	SSI-Output
	Temperature parameter
	Counting direction
	Velocity parameter
Type of parametrization	programmable
Programming - Tool	Fieldbus-Device
	TR-Soft: TRWinProg
Speed output	
- Resolution	16 Bit
- Accuracy (output value)	± 10 %
External inputs	
- Function input	Preset adjustment
- Function input	Switch-off of the laser diode
- Function input	Error acknowledgement
- Type of parametrization	programmable
- Logic level, LOW	"0" < +2 V, <= ±35 V, 5 kOhm
- Logic level, HIGH	"1" > +8 V
- Number of inputs	1
External outputs	
- Status output	Temperature
- Status output	Intensity
- Status output	Hardware
- Status output	Speed
- Status output	Position
- Logic level, LOW	"0" < 1 V, <= 100 mA
- Logic level, HIGH	"1" > Supply Voltage – 2 V
- Type of parametrization	programmable
- Number of outputs	1

Subject to change.

LE-200 PROFIBUS + SSI LINEARISIERT

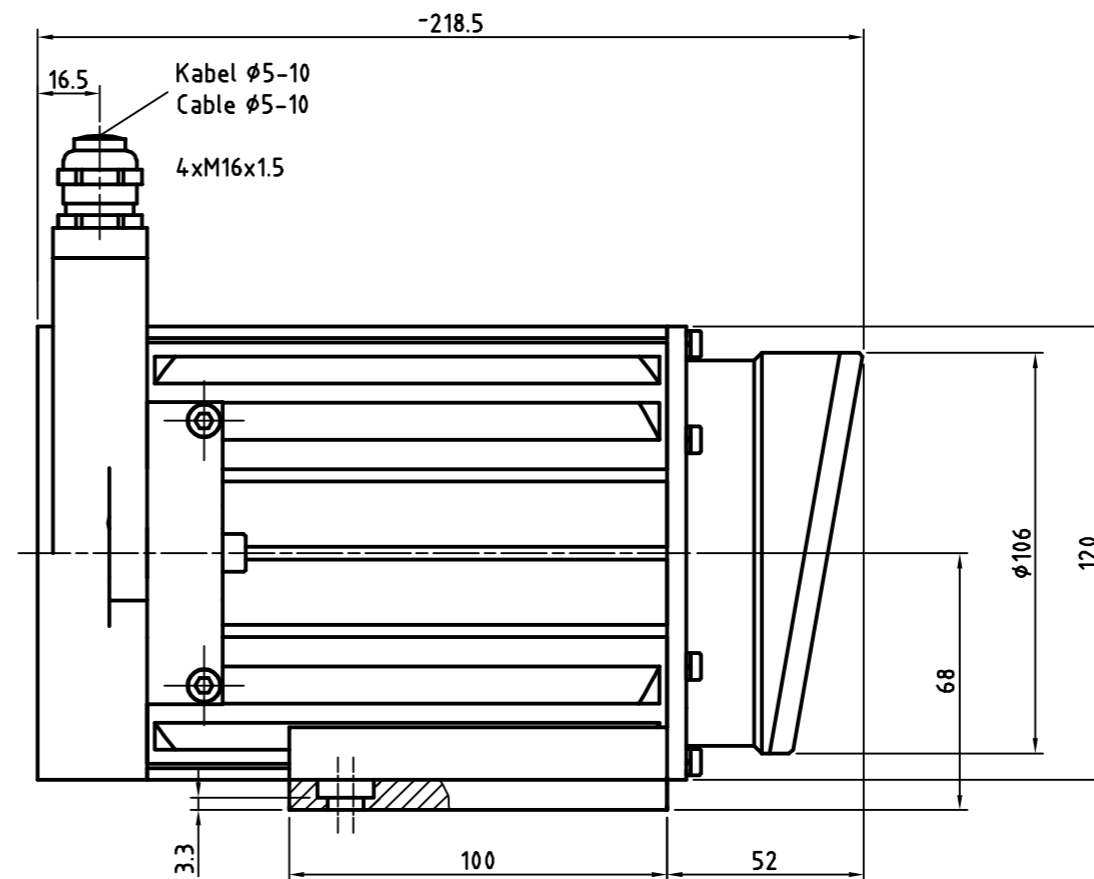
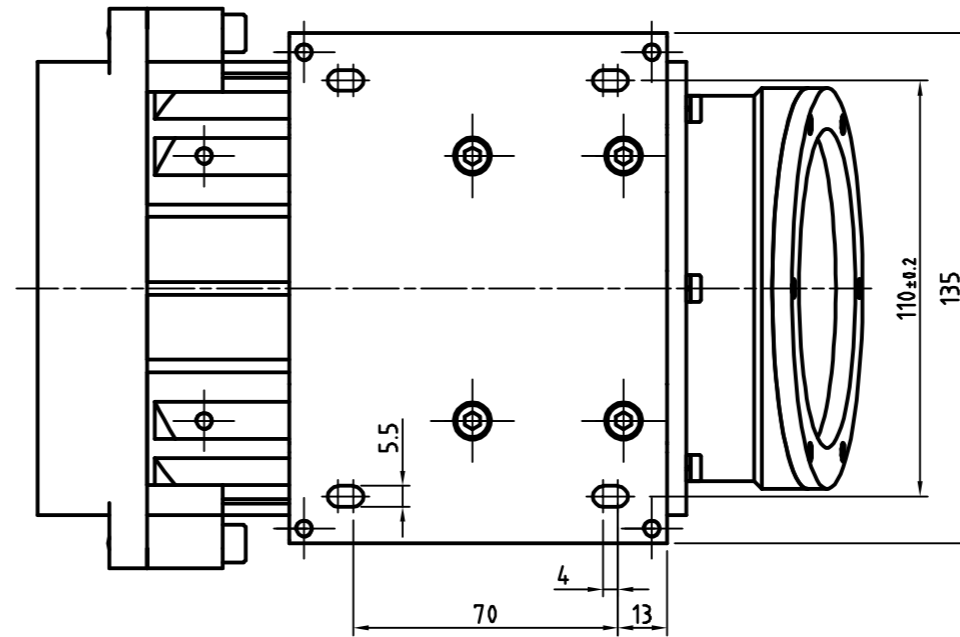
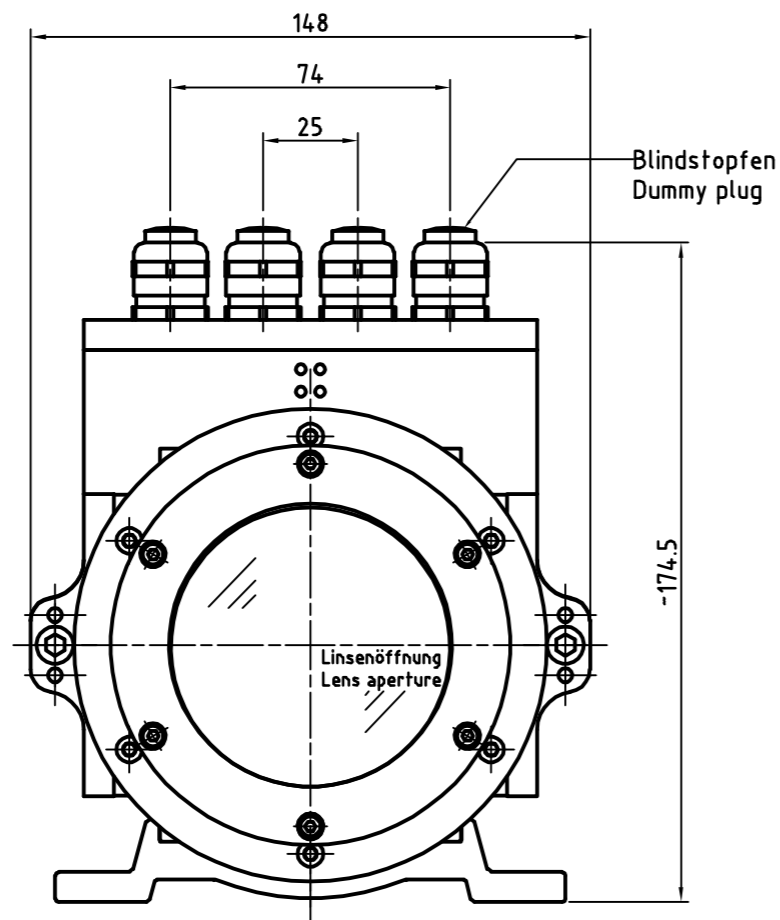
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Environmental data

Vibration	
- Specific value	$\leq 50 \text{ m/s}^2$
- Sine	50...2000 Hz
Shock	
- Specific value	$\leq 300 \text{ m/s}^2$
- Half sine	11 ms
Immunity to disturbance	DIN EN 61000-6-2
Transient emissions	DIN EN 61000-6-3
Working temperature	
- Standard	0...+50 °C
- Optional	-30...+50 °C;
Storage temperature, dry	-20...+75 °C
Temperature drift	1 ppm/°C $\leq 125 \text{ m}$
	1 ppm/°C $\leq 170 \text{ m}$
	1 ppm/°C $\leq 195 \text{ m}$
	1 ppm/°C $\leq 240 \text{ m}$
Relative humidity	98 %, non condensing
Protection class	
- Standard	IP65

Subject to change.



Artikel-Nr. und Steckerbelegung: siehe Datenblatt
 Article-No. and pin connections: see data sheet

 TR Electronic GmbH Eglisshalde 6 78647 Trossingen Telefon 07425/228-0				Maßstab 1:2	DIN A3	Projekt-Nr.:
				Zeichnungs-Nr. nur für diese Ausführung gültig Drawing-No. only for this type valid		
		Datum	Name	LE-200		
	Erstellt	02.12.2002	HABETLER			
	Bearb.	27.02.2019	STIER			
	Gepr.					
	Norm					
		www.tr-electronic.de DXF+Info: info@tr-electronic.de		Zeichnungs-NR./Drawing-No.:		Blatt 1
1	Step-Datei	27.02.19	Stier	04-K2200-002		Bl 1
Zust.	Änderung	Datum	Name			

Pin assignment Laser Measuring Device LE-200 Profibus-DP Class 2

General note:

If the device is the last station in the profibus line, the DIP switches *S3* and *S4* for the profibus terminator (switching-on of the terminal resistance) must be switched on, otherwise they must be switched off. **With the add-on connection of the terminal resistance the outgoing bus (PB_A_OUT, PB_B_OUT) is interrupted!**

The profibus also operates, if the device is separated from the connection cap.

TR-Electronic recommends for the operation to use only bus cables certified by the PNO.

With the BCD address switches *S1* (10^0) and *S2* (10^1) the station address for the profibus is set from 3 to 99.

Print clamps:

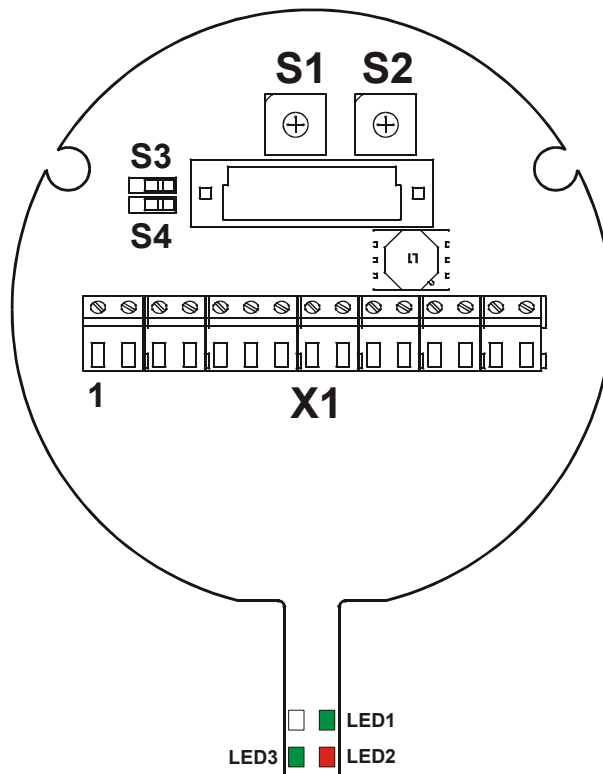
Connection angle 45°, grid spacing 5 mm, screw M 2.6 x 5.3 mm, nominal cross-section 1.5 mm², connection up to 2.5 mm² (fixed or flexible), nominal voltage 250 V, rated current 15 A, according to VDE 0100.

Explanation of terms:

- US: * Standard supply voltage: 18-27 V DC, device with heating: 24 V DC (± 5 %)
- US-input: 1-level > +8V, 0-level < +2V, up to ±35V, 5 kOhm
- US-output: 1-level > US-2V, 0-level < 1 V, up to 100mA
- Opto-input: Opto coupler for line driver (RS422)
- RS422-output: see DIN 66 348, part 2

X1 - screw clamp, 15-pole

- Pin 1 Profibus Data PB_A_IN
- Pin 2 Profibus Data PB_B_IN
- Pin 3 Profibus Data PB_A_OUT
- Pin 4 Profibus Data PB_B_OUT
- Pin 5 US-input, programmable
- Pin 6 US-output, programmable
- Pin 7 Signal GND (reference potential pin 6)
- Pin 8 Programming interface RS485 +
- Pin 9 Programming interface RS485 -
- Pin 10 * US, supply voltage
- Pin 11 0V, supply voltage
- Pin 12 Opto-input for SSI-clock +
- Pin 13 Opto-input for SSI-clock -
- Pin 14 RS422-output for SSI-data +
- Pin 15 RS422-output for SSI-data -



LEDs

- LED1 (green): Profibus-DP active
- LED2 (red): flashing = Profibus-DP not active, static = hardware failure
- LED3 (green) : Hardware OK