

LE-200 CAN DEVICE NET LINEARISIERT

Order-#: 2200-00402



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 2200-00402

RESOLUTION	1,0
MEASURING RANGE	125M
INTERFACE	CAN/DEVICE NET
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	FULL STROKE LINEARIZED PROGRAMMABLE
REFLECTIVE-FOIL	YES
WATER COOLING	NO
PINOUT NO.	TR-ELE-TI-D-0009
DRAWING NO.	04-K2200-002
DOCUMENTATION NO	DOKUMENTE

Subject to change.

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LE-200 CAN DEVICE NET LINEARISIERT

Order-#: 2200-00402

14.5.2020 / 010203020002020199

General data for K-LE200-DN-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
CAN DeviceNet™ - Interface	
- CAN DeviceNet™	EN 50325-2
- Bus connection	ISO 11898-1, ISO 11898-2
- CAN Specification 2.0 A	11-Bit Identifier
Transmission rate	
- Specific value	125, 250, 500 kbit/s
- Adjustability	by means of DIP-switches
Parameter/Function, changeable	Resolution
	Error outputs

Subject to change.

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General data for K-LE200-DN-1 continuation

	Intensity parameter
	Node-ID
	Preset parameter
	Adjustment - Parameter
	Temperature parameter
	Counting direction
	Velocity parameter
Type of parametrization	programmable
Programming - Tool	Fieldbus-Device
	TR-Soft: TRWinProg
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

Environmental data

Vibration	
- Specific value	<= 50 m/s ²
- Sine	50...2000 Hz
Shock	
- Specific value	<= 300 m/s ²
- Half sine	11 ms

Subject to change.

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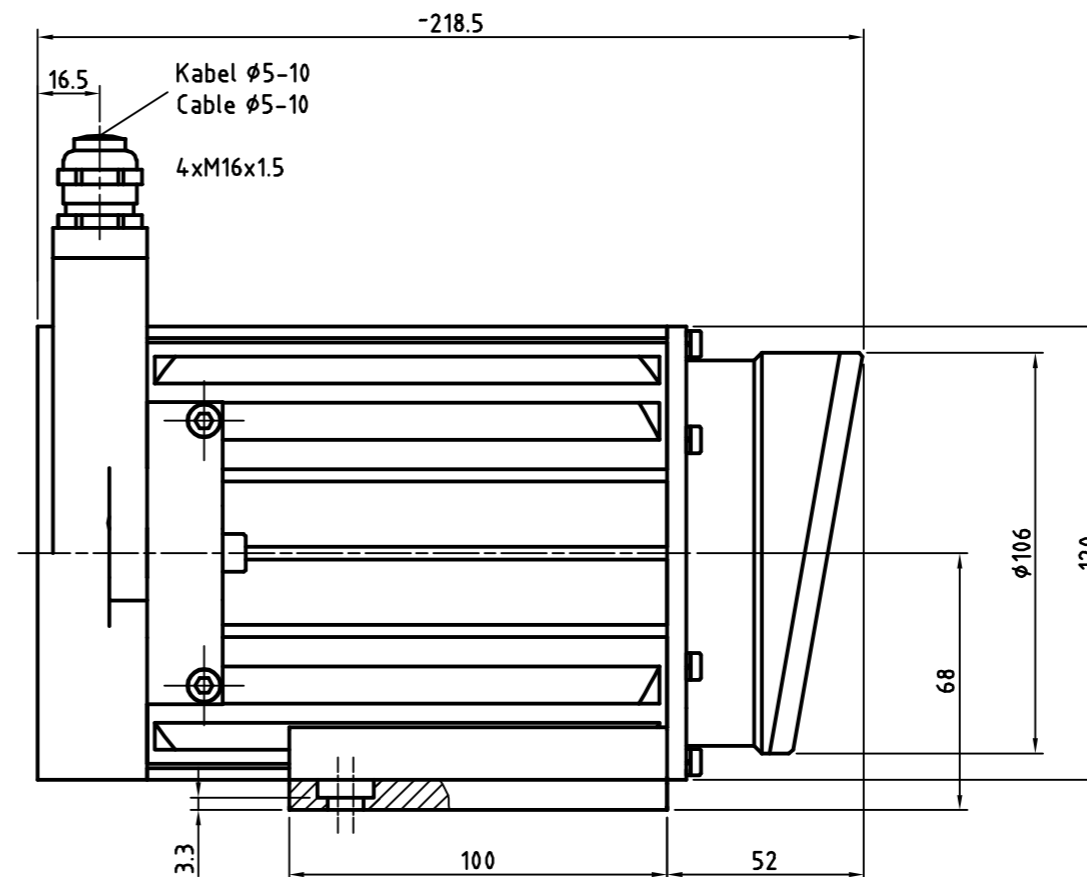
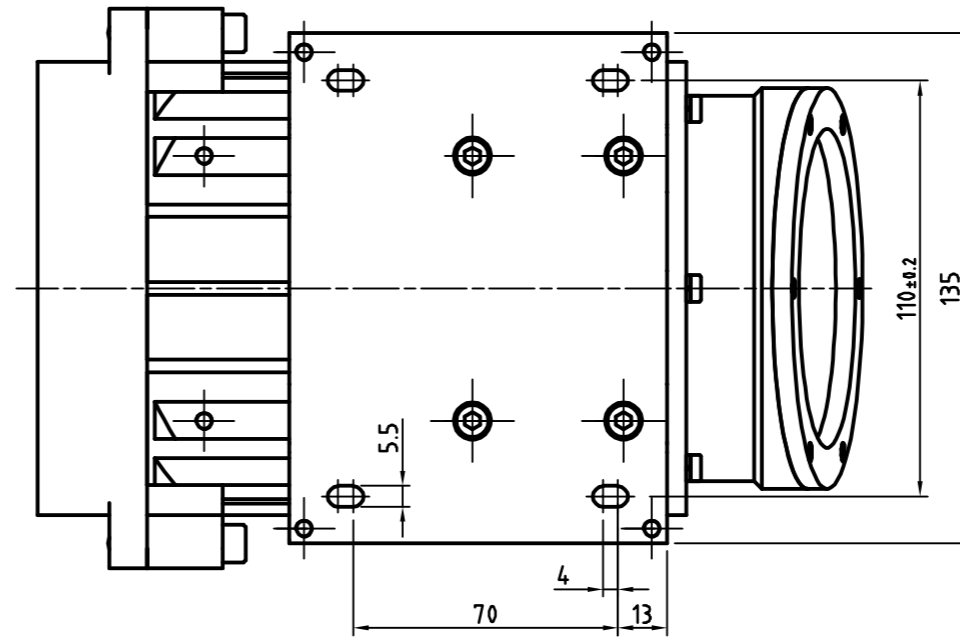
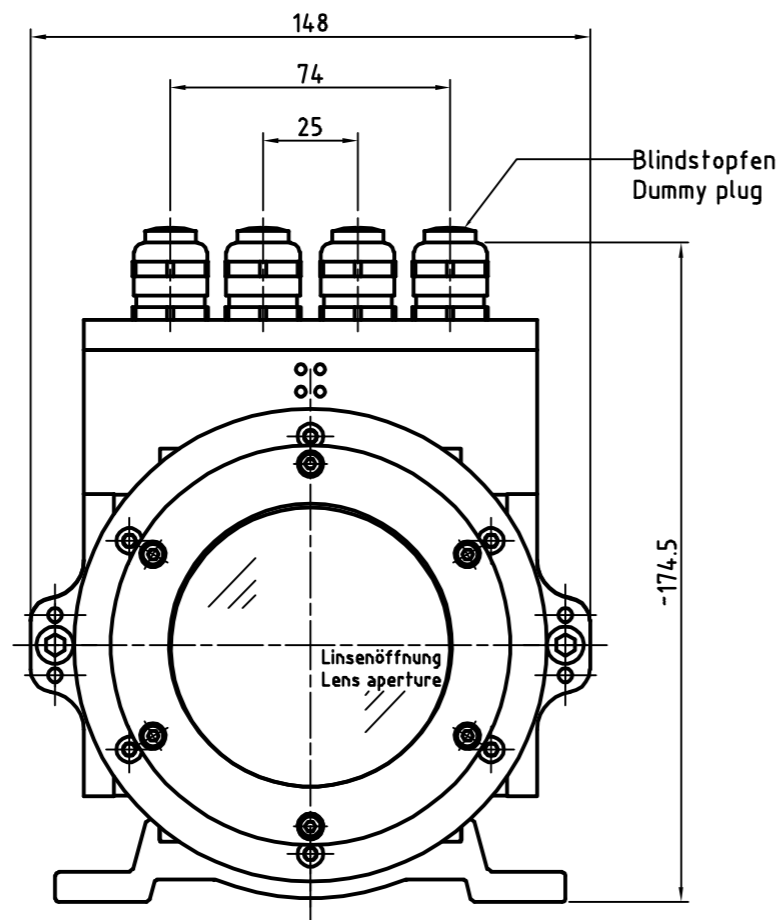
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Environmental data continuation

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 <= 125 m
	1 ppm/°C <= 170 m
	1 ppm/°C <= 195 m
	1 ppm/°C <= 240 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	
		Erstellt	02.12.2002	HABETLER
		Bearb.	27.02.2019	STIER
		Gepr.		
		Norm		
		www.tr-electronic.de		Zeichnungs-NR./Drawing-No.: 04-K2200-002
		DXF+Info: info@tr-electronic.de		
1	Step-Datei	27.02.19	Stier	Blatt 1
Zust.	Änderung	Datum	Name	Bl 1

Pin assignment

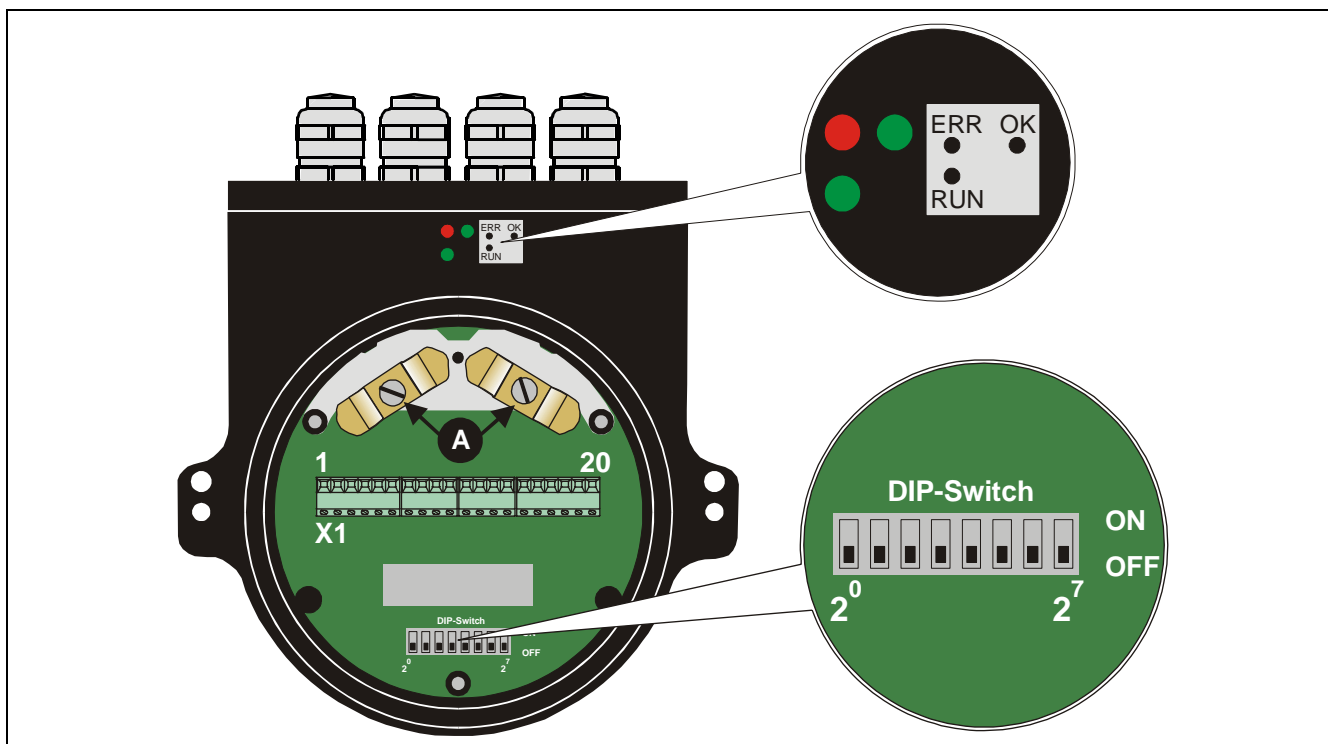
Laser Measuring Device LE-200 DeviceNet™

General note:

The CAN-Bus line (CAN_H / CAN_L) has to be terminated at the beginning or at the end with a terminating resistor of 121 ohms (**CAN-TERMINATOR**). In order to enable a separate wiring of the incoming and outgoing signals the CAN_H / CAN_L - terminals have two connection possibilities.

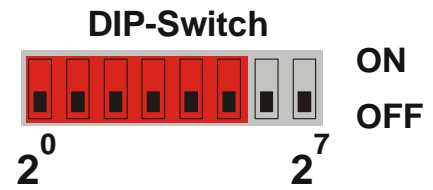
Explanation of terms			
SMKDS 1-3,5:	Print-Clamp Phoenix Contact 10A/160V, grid 3.5 mm, connection direction 55°		
Connection:	inflexible 0,14 - 1,5 mm ²	flexible 0,14 - 1 mm ²	Conductor size (AWG) 26 - 16
	flexible with wire end sleeve without plastic sleeve: 0,25 - 0,5 mm ²		flexible with wire end sleeve with plastic sleeve: 0,25 - 0,5 mm ²
US:	Supply Voltage Standard Device: 18 - 27 V DC, device with heating: 24 V DC (± 5%)		
US-input:	1-level > +8 V, 0-level < +2 V, up to ±35 V, 5 kOhm		
US-output:	1-level > US-2 V, 0-level < 1 V, up to 100 mA		
GNDI / GND	galvanically from each other separated data reference potentials		

X1	Screw Clamp, 20-pole	
Pin 1 Pin 2 Pin 3	Signal GND (reference potential pin 2) US-output US-input	Switching input / Switching output, programmable
Pin 4-6 + Pin 11-14	N.C.	may not be connected !
Pin 7 Pin 8	0V-supply voltage US-supply voltage	Supply Voltage
Pin 9 Pin 10	RS485 – RS485 +	Programming Interface, TRWinProg
Pin 15 Pin 16 Pin 17 Pin 18 Pin 19 Pin 20	GNDI (reference potential of the CAN_L / CAN_H signals) Shield (internal via RC-element onto case) CAN_H CAN_H CAN_L CAN_L	CAN – Bus / Shielding

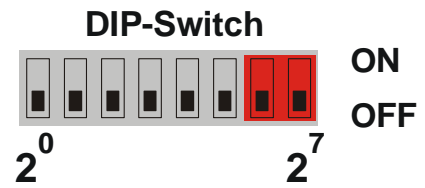


Pin assignment

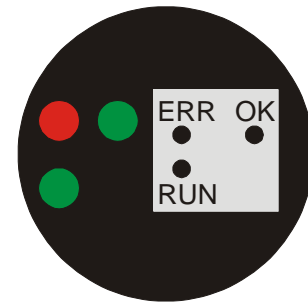
Identifier (ID), Laser addressing						
DIP-6 = ID 2 ⁵	DIP-5 = ID 2 ⁴	DIP-4 = ID 2 ³	DIP-3 = ID 2 ²	DIP-2 = ID 2 ¹	DIP-1 = ID 2 ⁰	Address = ID
off	off	off	off	off	off	0
off	off	off	off	off	on	1
off	off	off	off	on	off	2
⋮	⋮	⋮	⋮	⋮	⋮	⋮
on	on	on	on	on	off	62
on	on	on	on	on	on	63



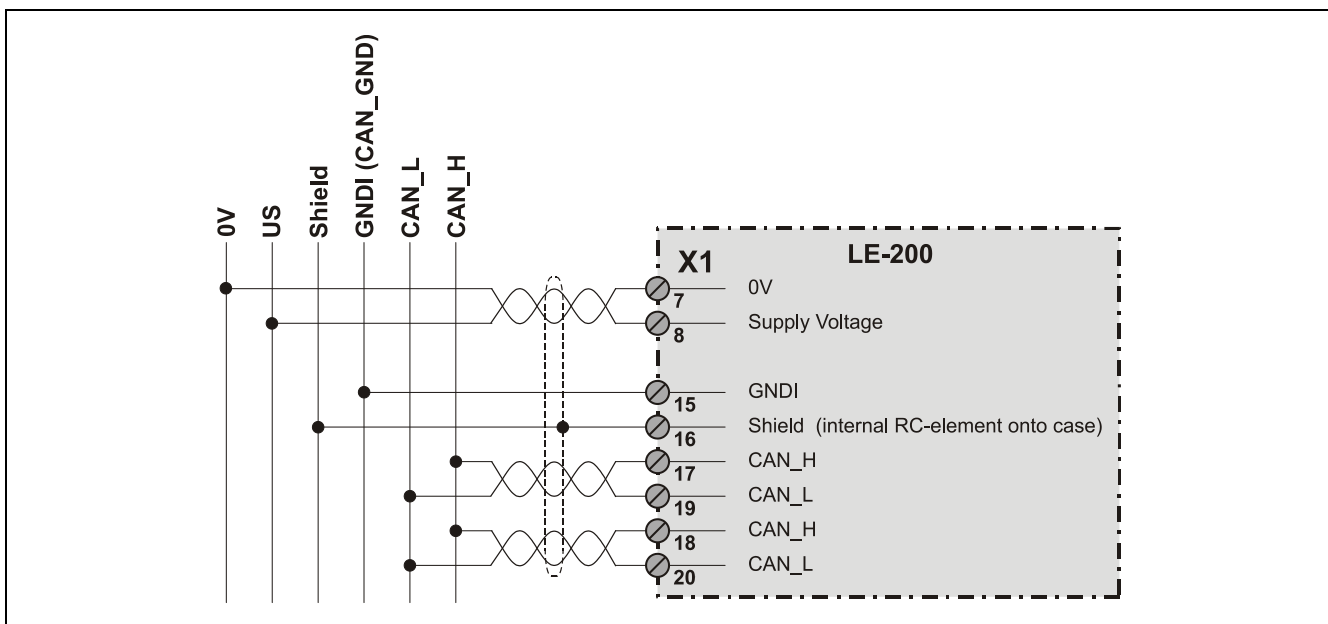
Baud rate			
DIP-8	DIP-7	Baud rate	Line length
off	off	125 kbps	approx. 500 m
off	on	250 kbps	approx. 250 m
on	off	500 kbps	approx. 100 m



Status LEDs	
LEDs Off	Laser is not On-Line - No Dup_MAC_ID test - Device may not be powered
RUN , green	On-line, with connections in the established state - Device is allocated to a master
RUN , green flashing	Recoverable faults - e.g. I/O-connections are in the time-out state
ERR , red	- Turn off system, after that turn on system - Replace laser device
ERR , red flashing	- Dup-MAC-ID test successful - No allocation to a master
OK , green	Laser hardware ok



Wiring diagram, Bus connection



Subject to change