

## Laser Measuring Device LE 200 - DN

TR-VLE-TI-GB-0125  
06/12 Revision 03  
010203-02000302-XXXX



- + CAN DeviceNet interface
- + Robust
- + Measurement of linear movement
- + Non contact distance measurement
- + Measuring distance up to 125m, 170m, 195m other distances on request
- + Parametrizable
- + Further interfaces available
- + Customized adaptations upon request

### Characteristics

Supply voltage.....	Standard: 18...27 V DC $\pm$ 5 %, with heating: 24 V DC $\pm$ 5 %
Current consumption, without load.....	Standard: < 350 mA, with heating: < 2.5 A
Measurement principle.....	Phase shift measurement
Measuring length, against reflector foil .....	0.2...125 m standard, 170m, 195m (special devices)
Resolution selectable <sup>1)</sup> .....	physical resolution 0.1 mm
Linearization	
- up to 12 m, standard.....	absolute linearity error $\pm$ 3 mm
- complete measuring length.....	absolute linearity error $\pm$ 5 mm
Reproducibility .....	$\pm$ 2 mm
Laser diode, red light.....	Laser Protection Class 2 according to DIN EN 60 825-1: 2003-10
- Wave length $\lambda$ .....	670 nm
- Laser power .....	$P_{\max} \leq 1$ mW
- Lifetime, 25 °C .....	50 000 h
Measurand output / refresh rate .....	1000 values / s
Integration time .....	1 ms
Programmable via RS485 .....	WINDOWS® compatible (TRWinProg) / CAN DeviceNet
CAN DeviceNet.....	EN 50325-2
- Bus connection.....	ISO 11898-1, ISO 11898-2
- CAN Specification 2.0 A .....	11-bit identifier
- Parameter <sup>1)</sup> .....	Count direction, Resolution, Preset value among others
- Output code .....	Binary
- Node-ID.....	0...63, adjustable about DIP-switches
- Baud rate .....	125 kbit/s, 250 kbit/s, 500 kbit/s; adjustable about DIP-switches
Switching input / Switching output <sup>1)</sup>	
- Levels switching input.....	1-level > +8 V, 0-level < +2 V, up to $\pm$ 35V, 5 kOhm
- Levels switching output .....	1-level > US-2 V, 0-level < 1 V, up to 100 mA

<sup>1)</sup> programmable parameter

Subject to change

**Environmental conditions**

Vibration, DIN EN 60068-2-6: 1996 .....	≤ 50 m/s <sup>2</sup> , sine 50-2000 Hz
Shock, DIN EN 60068-2-27: 1995.....	≤ 300 m/s <sup>2</sup> , half-sine 11ms
EMC	
- Immunity to disturbance, DIN EN 61000-6-2: 2006	
- Transient emissions, DIN EN 61000-6-3: 2007	
Working temperature	
- Standard .....	0...50 °C
- With heating .....	-30 °C...+50 °C
Storage temperature .....	-20 °C...+75 °C, dry
Thermal drift, related to the max. measuring length.....	1 ppm / °C at 125 m, 170 m or 195 m
Relative humidity, DIN EN 60068-3-4: 2002 .....	98 %, non condensing
Protection class, DIN EN 60529: 1991 <sup>2)</sup> .....	IP 65

<sup>2)</sup> valid with screwed on mating connector and / or screwed together cable gland

**Dimension drawing**

(For project planning please request customized dimensional drawing!)

