

Laser Measuring Device LE-200 Profibus (PNO)

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- **Robust**
- **Measurement of Linear Movement**
- **Non Contact Distance Measurement**
- **Measuring Distance Up To 125m, 170m, 195m
other distances on request**
- **Interface : Profibus-DP / Synchronous-Serial**
- **Parametrizable via PROFIBUS,
according to PNO-profile CLASS2**

Electrical Data

Measurement Principle	Phase shift measurement
Range (LE-200 to Reflector)	0.2 – 125 m standard, 170m, 195m (special devices)
* Resolution	selectable, physical resolution 0.1 mm
Linearisation	
up to 12m (standard)	absolute linearity error ±3 mm
complete measuring length	absolute linearity error ±5 mm
Supply Voltage	18-27 V DC ± 5 %, 24 V DC ± 5 % (device with heating)
Power Dissipation (No Load)	< 6 Watt, < 60 Watt (device with heating)
Light Source	Laser Diode (Red Light) / Laser Protection Class 2 acc. to DIN EN 60 825-1: 2001-11
Wave Length λ	670 nm
Maximum Laser Power	P ≤ 1 mW
Lifetime (25°C / 77° F)	50 000 h
Measurement Value Output / Cycle Time	1000 values per second
Integration Time	1 ms
Reproduction	± 2 mm
Programmable via RS485	PC IBM compatible TRWinProg software / Profibus-DP
Profibus-DP Interface:	PROFIBUS-DP acc. to DIN 19245 Part 1-3
Output code:	Binary
Baud rate:	9,6 kBaud to max. 12 Mbaud
Special features:	Configuration is performed via the parameterization message at the start-up of the encoder or PROFIBUS-DP master
Station addresses:	3 – 99
SSI-Interface:	Clock input: Opto Coupler isolated / Clock frequency: 80 kHz - 820 kHz
* Output Code:	Binary, Gray
Cable Length	Dependent on cable cross section, shielding, clock frequency etc.
Data Output / * Number of data bits	RS485 (2-wire) / 24 - 26, with error bit transmission
* Switching input / Switching output	
Levels switching input	1-level > +8V, 0-level < +2V, up to ±35V, 5 kOhm
Levels switching output	1-level > US-2V, 0-level < 1 V, up to 100mA
Pin Configuration	Upon Request
* programmable parameter	

Environmental Data

Electromagnetic compatibility	EN 61000-4-2 (IEC-801-2) / EN 61000-4-4 (IEC-801-4)
Operating Temperature	0° to 50°C (32° F to 122° F), -30° to +50°C (device with heating)
Thermal drift	1 ppm / °C, related to the max. measuring length of 125 m, 170 m or 195 m
Storage temperature range	-20° to 75°C (- 4° F to 167° F)
Relative Humidity	98 % (non condensing)
* Protection Class	IP 65 (DIN 40 050)
* The protection class is valid for the device with screwed-together cable glands.	

Mechanical Data

Vibration (50-2000 Hz Sinusoidal DIN IEC 68-2-6 $\leq 50 \text{ m/s}^2$ (5g)
 Shock (11ms) DIN IEC 68-2-27 $\leq 300 \text{ m/s}^2$ (30g)
 Mechanical Special Types Upon Request
 Connection Screw Terminals, 4 x M16x1.5

Dimension drawing

