

Laser Measuring Device LE-200 Profibus (PNO)

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- **Robust**
- **Measurement of Linear Movement**
- **Non Contact Distance Measurement**
- **Measuring Distance Up To 125 m (195 m)**
- **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 to 125 m, with special reflector up to max. 195 m
* Resolution	0.01mm, 0.1mm, 1mm, 10mm, 0.1 Inch, 1 Inch
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 (IEC 825)
Wave Length λ	670 nm
Maximum Laser Power	P ≤ 1 mW
Lifetime (25°C / 77° F)	50 000 h
Light Receiver	Photo Diode
Measurement Value Output	≥ 0,001 mm
Measurement Value Output / Cycle Time	1000 values per second
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:	Programming 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
Transmission 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
Inputs	
* Switching Input	Preset (electronic adjustment), switch off of the laser diode
Logic Levels	"0" < + 2 V DC, "1" > + 8 V DC, max. 30 V DC
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
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 of the device can be effected by the type of cable and connector used.	

Mechanical Data

Vibration (50-2000 Hz Sinusoidal).....	DIN IEC 68-2-6
Shock (11ms)	DIN IEC 68-2-27
Mechanical Special Types	Upon Request
Connection	Screw Terminals, 4 x M16x1.5

Dimension drawing

