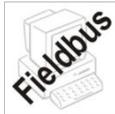


## Laser Measuring Device LLB 500 - PB

LLB500-PB-1-GB-1  
06/12 Revision 03  
010203-0400XX99-9999



- + PROFIBUS-DP interface
- + Analog interface: 0...20 mA or 4...20 mA
- + Detection of positions
- + Non contact distance measurement
- + Distance measurements on
  - natural surfaces : 0.05 up to approx. 65 m
  - reflective target plate : 0.5 up to approx. 500 m
- + LLB500-00100: Measuring accuracy  $\pm 1$  mm
- + LLB500-00101: Measuring accuracy  $\pm 3$  mm
- + Programmable via PROFIBUS-DP

### Characteristics

Supply voltage.....	13...30 VDC
Current consumption without load.....	$\leq 0.6$ A
Measuring range	
- on natural surfaces .....	typically 0.05...65 m
- on reflective target plate.....	typically 0.5...500 m
Measuring resolution .....	0.1 mm
Measuring accuracy	
- LLB500-00100.....	typically $\pm 1$ mm at $2\sigma$
- LLB500-00101 .....	typically $\pm 3$ mm at $2\sigma$
Time for a measurement	
- Single measurement.....	typically 0.3...4 s
- Tracking Mode .....	typically 0.04...4 s
Light source.....	Laser diode, red light
- Wavelength $\lambda$ .....	620...690 nm
- Laser protection class.....	2 accor. IEC 60 825-1:2007 / FDA 21CFR 1040.10 and 1040.11
- Beam divergence.....	0.16 x 0.6 mrad
- Pulse duration .....	$0.45 \times 10^{-9}$ s
- Radiant power.....	$\leq 0.95$ mW
- Life time.....	$> 50.000$ h at 20 °C
PROFIBUS-DP according to IEC 61158, IEC 61784 <sup>1)</sup> .....	9.6 kbit/s...12 Mbit/s
Analog interface <sup>1)</sup> .....	0...20 mA, 4...20 mA, $\leq 500 \Omega$
Digital switching outputs .....	Open Drain, 30 VDC, 200 mA
- 2 Digital outputs for level control <sup>1)</sup> .....	programmable
- 1 Digital output.....	Device error
Digital input <sup>1)</sup> .....	external triggering
- Switching level.....	1-level $> +13V$ ... $< +30$ V, 0-level $< 2$ V
Mass.....	950 g

<sup>1)</sup> programmable parameter

Subject to change

**Environmental conditions**

Vibration, DIN EN 60068-2-6: 1996 .....  $\leq 50 \text{ m/s}^2$ , Sinus 50-2000 Hz  
 Schock, DIN EN 60068-2-27: 1995 .....  $\leq 300 \text{ m/s}^2$ , Halbsinus 11 ms

EMV

- Entladung statischer Elektrizität, IEC 61000-4-2: 1995+A1+A2
- Störfestigkeit, DIN EN 61000-6-2: 2001
- Störaussendung DIN EN 61000-6-4: 2001

Arbeitstemperatur

- Standard .....  $-10 \text{ }^\circ\text{C} \dots +50 \text{ }^\circ\text{C}$
- im Tracking Mode .....  $-10 \text{ }^\circ\text{C} \dots +45 \text{ }^\circ\text{C}$

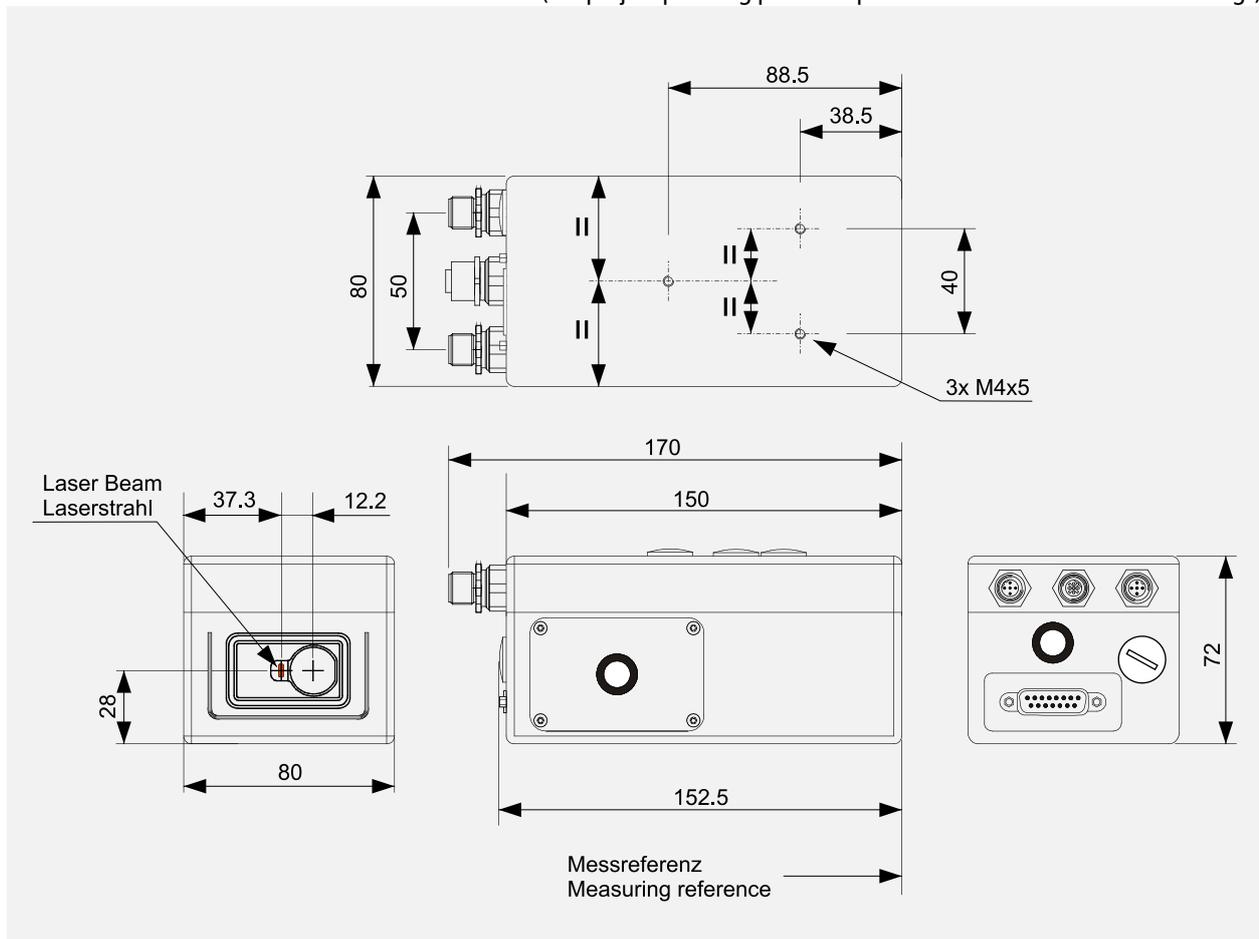
Lagertemperatur .....  $-40 \text{ }^\circ\text{C} \dots +70 \text{ }^\circ\text{C}$ , trocken

Schutzart, DIN EN 60529: 1991 <sup>2)</sup> ..... IP 65

<sup>2)</sup> gültig mit aufgeschraubtem Gegenstecker und/oder verschraubter Kabelverschraubung

**Dimension drawing**

(For project planning please request customized dimensional drawing!)



Subject to change