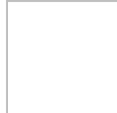
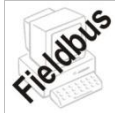


## Laser Measuring Device LLB 65 - PB

LLB65-PB-1-GB-1  
06/12 Revision 02  
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
- + LLB65-00100: Measuring accuracy  $\pm 1.5$  mm
- + LLB65-00101: Measuring accuracy  $\pm 3.0$  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
Measuring resolution .....	0.1 mm
Measuring accuracy	
- LLB65-00100.....	typically $\pm 1.5$ mm at $2\sigma$
- LLB65-00101.....	typically $\pm 3.0$ mm at $2\sigma$
Time for a measurement	
- Single measurement.....	typically 0.3...4 s
- Tracking Mode .....	typically 0.15...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

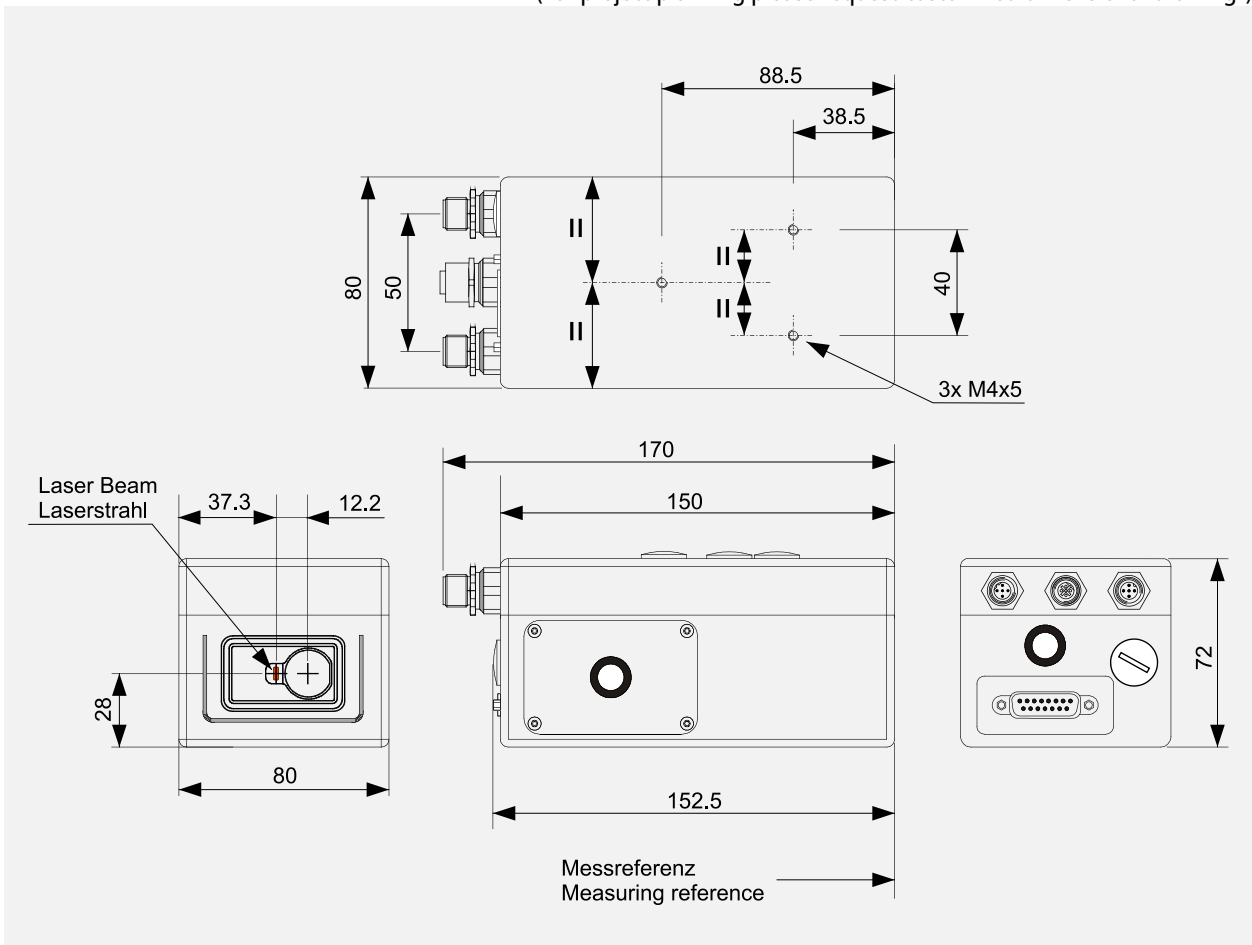
**Environmental conditions**

Vibration, DIN EN 60068-2-6: 1996 .....	≤ 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 11 ms
<b>EMC</b>	
- Discharge of static electricity, DIN EN 61000-4-2: 1995+A1+A2	
- Immunity to disturbance, DIN EN 61000-6-2: 2001	
- Emission, DIN EN 61000-6-4: 2001	
<b>Working temperature</b>	
- Standard .....	-10 °C...+50 °C
- Tracking Mode .....	-10 °C...+45 °C
Storage temperature .....	-40 °C...+70 °C, dry
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!)



Subject to change