

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 ± 1 mm
- + LLB500-00101: Measuring accuracy ± 3 mm
- + Programmable via PROFIBUS-DP

Characteristics

Supply voltage.....	13...30 VDC
Current consumption without load.....	≤ 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 ± 1 mm at 2σ
- LLB500-00101	typically ± 3 mm at 2σ
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 λ	620...690 nm
- Laser protection class.....	2 accord. IEC 60 825-1:2007 / FDA 21CFR 1040.10 and 1040.11
- Beam divergence.....	0.16 x 0.6 mrad
- Pulse duration	0.45×10^{-9} s
- Radiant power.....	≤ 0.95 mW
- Life time	> 50.000 h at 20 °C
PROFIBUS-DP according to IEC 61158, IEC 61784 ¹⁾	9.6 kbit/s...12 Mbit/s
Analog interface ¹⁾	0...20 mA, 4...20 mA, ≤ 500 Ω
Digital switching outputs	Open Drain, 30 VDC, 200 mA
- 2 Digital outputs for level control ¹⁾	programmable
- 1 Digital output.....	Device error
Digital input ¹⁾	external triggering
- Switching level.....	1-level > +13V...< +30 V, 0-level < 2 V
Mass.....	950 g

¹⁾ programmable parameter

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 °C...+50 °C
- im Tracking Mode -10 °C...+45 °C

Lagertemperatur -40 °C...+70 °C, trocken

Schutztart, DIN EN 60529: 1991²⁾ IP 65

²⁾ gültig mit aufgeschraubtem Gegenstecker und/oder verschraubter Kabelverschraubung

Dimension drawing

(For project planning please request customized dimensional drawing!)

