

Barcode Positioning System BE-90 Profibus DP

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- **Easy Installation and Commissioning**
- **Measurement of Linear and Non-Linear Movements (Curved Systems)**
- **Non Contact Position Measurement**
- **Position Detection Up To 10 000 m**
- **Profibus-DP Interface**
- **Parameterizable via the PROFIBUS DP**

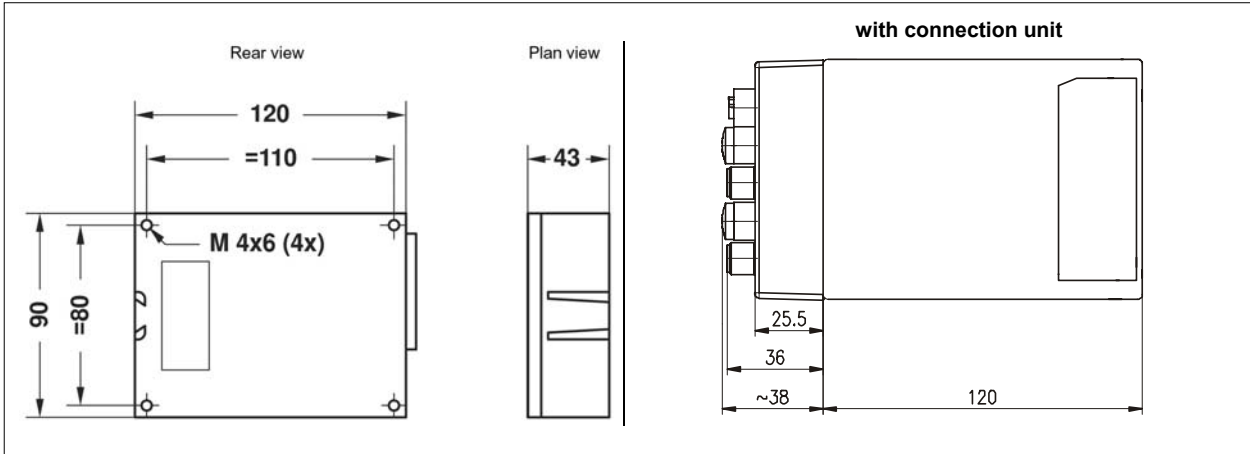
General Specifications

Optical Data	
Light source	Laser diode 650 nm
Scanning rate	1000 scans/sec.
Measurement Data	
Reproducible accuracy	±1 (2) mm
Integration time	16 (8) ms
Measurement value output	500 values/sec.
Refresh time	2 ms
Scanning depth	90 ... 170 mm
Electrical Data	
Interface type	Profibus DP
Service Interface	RS232 with fixed data format, 9600 baud, 8 data bits, no parity, 1 stop bit
Ports	1 switching output, 1 switching input
LED green	device ready (Power On)
Operating voltage	10 ... 30 V
Power consumption	5 W
Mechanical Data	
Protection class	IP 65
Weight	400 g
Dimensions (W x H x D)	120 x 90 x 43 mm, without connection unit
Housing	diecast aluminium

Environmental Data

Operation without optics heating	0°C ... +40°C
Operation with optics heating	-30°C ... +40°C
Storage	-20°C ... +60°C
Air humidity	max. 90% rel. humidity, non-condensing
Vibration	IEC 68.2.6, IEC 68.2.27 (shock), IEC 801
Electromagnetic compatibility	acc. to IEC 60947-5-2

Dimension Drawing BE-90 PB



Barcode Band / Operating Principle

Max. length (measurement length) 10 000 m

Construction
 Manufacturing method..... Photo composition
 Surface protection Polyester, faint
 Basic material..... Polyester film 0,08 mm
 Adhesive HU

Adhesive description HU
 Acrylate adhesive
 Thickness 0,10 mm
 Temperature resistance -40°C ... +120°C,
 short time up to +160°C



High adhesive-effect-values on low-and high-energetic surfaces with an optimized temperature resistance create permanent connections to all smooth to easily rough undergrounds.

Surface protection

Extremely resistantly, since the bar code is protected by the polyester film.

Characteristics

Single-edged white pigmented thin polyester film with high resistance and measure precision. Resistantly against UV-light, chemicals and solvents (restricted), scratch and wipe, humidity.
 By structure of single component, low lateral attack region.

Attention!

The specifications to the barcode band, contained here, are based on test results. This does not exclude that each user must check the suitability of the product for the use planned by him himself.

Operating principle

The BE-90 uses visible red laser light to determine its position relative to the barcode band. This essentially takes place in the following steps:

1. Reading a code on the barcode band
2. Determining the position of the read code in the scanning area of the laser beam
3. Calculating of the position to within a millimetre using the code information and the code position
4. Position output via the Profibus DP interface