

**Barcode Positioning System BE-90 SSI**

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 Germany



- **Easy Installation and Commissioning**
- **Measurement of Linear and Non-Linear Movements (Curved Systems)**
- **Non Contact Position Measurement**
- **Position Detection Up To 10 000 m**
- **SSI-Interface (Synchronous-Serial Interface)**
- **Programmable (BE-90 Configuration Tool)**

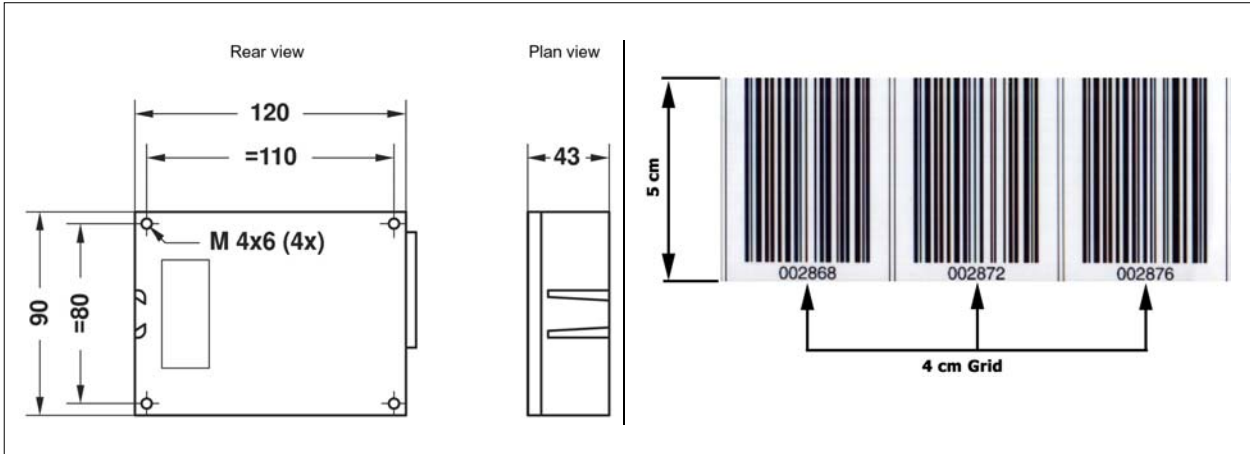
**General Specifications**

<b>Optical Data</b>	
Light source .....	Laser diode 650 nm
Scanning rate .....	1000 scans/sec.
<b>Measurement Data</b>	
Reproducible accuracy .....	±1 (2) mm
Integration time .....	16 (8) ms
Measurement value output .....	500 values/sec.
Scanning depth .....	90 ... 170 mm
<b>Electrical Data</b>	
Interface type .....	SSI (RS422), electrically isolated
	16 ... 32 data bits
	800 kHz max. clock frequency
	output of positive and negative position values binary or Gray encoded
Service Interface .....	RS232 with fixed data format,
	9600 baud, 8 data bits, no parity, 1 stop bit
Ports .....	1 switching output, 1 switching input
Programming via RS232 .....	PC IBM compatible (BE-90 Configuration Tool)
LED green .....	device ready (Power On)
Operating voltage .....	10 ... 30 V
Power consumption .....	3,2 W
<b>Mechanical Data</b>	
Protection class .....	IP 65
Weight .....	400 g
Dimensions (W x H x D) .....	120 x 90 x 43 mm (stand alone 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 SSI / Barcode Band**



**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, for a 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 standardised SSI interface (synchronous serial interface)