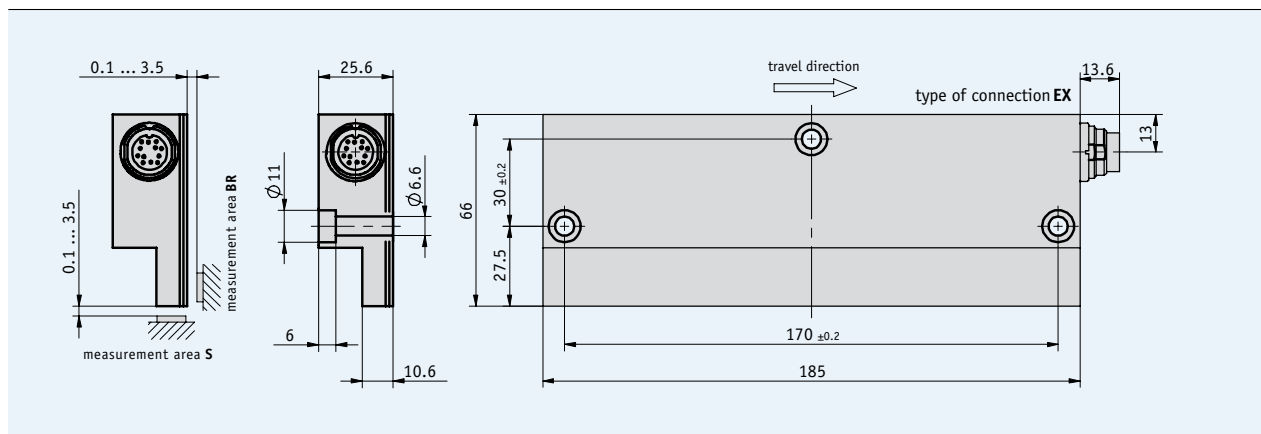


## Profile

- Resolution of 1 mm
- Repeat accuracy  $\pm 1$  mm
- SSI or RS485 interfaces
- Max. sensor/band reading distance of 3.5 mm



5.3

## Mechanical data

Feature	Technical data	Additional information
Scale embodiment	MBA1000	
System accuracy	$\pm(2.5 + 0.03 \times L)$ mm, L in m	
Repeat accuracy	$\pm 1$ mm	
Sensor/band reading distance	0.1 ... 3.5 mm	
Travel speed	5 m/s	real-time behavior up to 0.5 m/s
Housing	aluminum	
Operating temperature	-20 ... +55 °C	
Storage temperature	-20 ... +85 °C	
Humidity	100 % rh	condensation only permissible with completely encapsulated version
Protection category	IP65	
Vibration resistance	10 g/50 Hz	
Max. measuring length	$\leq 163$ m	

### Electrical data

Feature	Technical data	Additional information
Operating voltage	24 V DC $\pm 20\%$	reverse-polarity protection on UB
Current consumption	<500 mA	
Power input	<10 VA	
Type of connection	without connector	
Interfaces	SSI or RS485	
Resolution	1 mm	
Interference protection class	3	according to DIN EN 50081-2 and DIN EN 50082-2
Real-time requirement	up to $v = 0.5$ m/s	
Baud rate	at 200 m max. SSI baud rate 125 kHz (10 x 0.25 mm)	

### Pin assignment

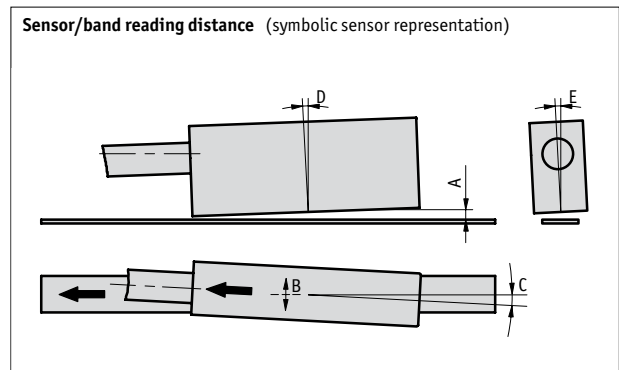
Signal	EX
SSI data-	A
SSI data+	B
SSI clock-	C
SSI clock+	D
+24 V DC	E
RS485 GND	F
RS485 D <sub>UA</sub>	G
RS485 D <sub>UB</sub>	H
GND	J
GND	K
Configuration	L
N.C.	M

## 5.3

### Mounting instruction

When installing the sensor and magnetic band, always ensure that both system components are correctly aligned. The arrows marked on the band and sensor must point in the same direction during installation.

<b>A</b> , Sensor/band reading distance	max. 3.5 mm
<b>B</b> , Lateral offset	max. $\pm 1.5$ mm
<b>C</b> , Misalignment	$< \pm 3^\circ$
<b>D</b> , Longitudinal tilt	$< \pm 1^\circ$
<b>E</b> , Lateral tilt	$< \pm 3^\circ$



**Order**

■ **Order note**

This sensor is sold in Switzerland and Austria under the product name "AMSA1000".

■ **Order table**

Feature	Order data	Specifications	Additional information
Measurement area	S	narrow side	
	BR	wide side	
Electronics unit encapsulated	NV	not encapsulated	
	EV	electronics unit completely encapsulated	for outdoor applications

■ **Order code**

MSA1000 -  - EX - OK -

*Scope of delivery: MSA1000, User information*

**Accessories:**

*Mating connectors*

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**Additional information:**

*Short Description, Technical Details*

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*Product Overview*

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