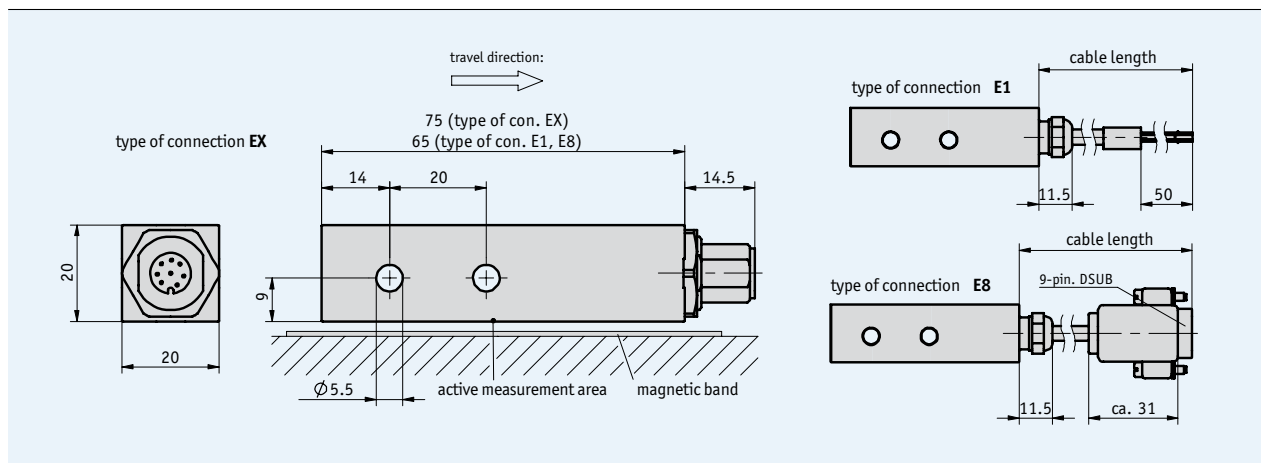


Profile

- Max. resolution of 10 µm
- Repeat accuracy of 0.01 mm
- SSI, RS485 output circuits
- Max. sensor/band reading distance 1 mm
- Max. measuring length 5120 mm



5.2

Mechanical data

Feature	Technical data	Additional information
Scale embodiment	MBA	
System accuracy	$\pm(0.05 + 0.03 \times L)$ mm, L in m	at $T_U = 20^\circ\text{C}$
Repeat accuracy	max. 0.01 mm	
Sensor/band reading distance	max. 1 mm	
Travel speed	max. 5 m/s	
Housing	aluminum	
Sensor cable	PVC	option: drag chain-compatible cable
Operating temperature	$-20 \dots +60^\circ\text{C}$	
Storage temperature	$-30 \dots +85^\circ\text{C}$	
Humidity	100 % rh	condensation permitted
Protection category	IP65	
Vibration resistance	10 g/50 Hz	
Max. measuring length	max. 5120 mm	

Electrical data

Feature	Technical data	Additional information
Operating voltage	10 ... 30 V DC	reverse-polarity protection on UB
Current consumption	<125 mA	
Power input	<3 VA	
Type of connection	round connector on the housing flying leads D-SUB connector	
Output circuit	SSI, RS485	
Resolution	10 µm	other resolutions programmable
Interference protection class	3	according to IEC 801
SSI clock rate	<500 kHz	
Cycle time	<650 µs	

Pin assignment

SSI (according to RS422)

Signal	E1	EX	E8
Zeroing/config.	white	1	4
+UB	brown	2	1
Data+	green	3	3
Data-	yellow	4	8
GND	gray	5	5
Clock+	pink	6	2
Clock-	blue	7	7
N.C.		8	6, 9
Screen	black		

RS485

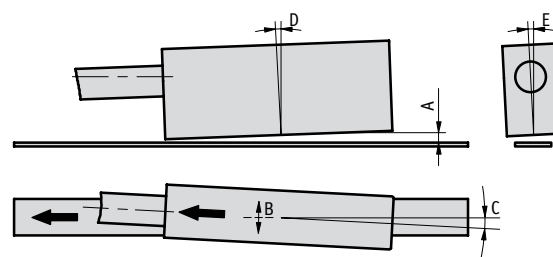
Signal	E1	EX	E8
Calibration		1	
Configuration	white		4
+UB	brown	2	1
DÜA	green	3	3
DÜB	yellow	4	8
GND	gray	5	5
N.C.	pink		
N.C.	blue		
N.C.		6, 7, 8	2, 6, 7, 9
Screen	black		

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

A , Sensor/band reading distance	max. 1.0 mm
B , Lateral offset	max. ±0.5 mm
C , Misalignment	<±1°
D , Longitudinal tilt	<±0.5°
E , Lateral tilt	<±3°

Sensor/band reading distance (symbolic sensor representation)



Order

- Order note**
 This sensor is sold in Switzerland and Austria under the product name “AMSA”.

Order table

Feature	Order data	Specifications	Additional information
Output circuit	RS485	SIKO standard protocol/SIKONETZ3	bus-compatible
	SSI	incl. RS485 service interface	
Type of connection	EX	without mating connectors, round connector 8-pin	M12, A-coded
	E1	flying leads	
	E8	D-Sub connector	
Cable length L	...	1 ... 20 m, in steps of 1 m	
		others on request	

- Order code**

MSA510/1-

A

-

B

-

C

Scope of delivery: MSA510/1, User information, distance gage 0.5 mm

Accessories:
Mating connectors
Cable extension KV08S2

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Additional information:
Short Description, Technical Details
Product Overview

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