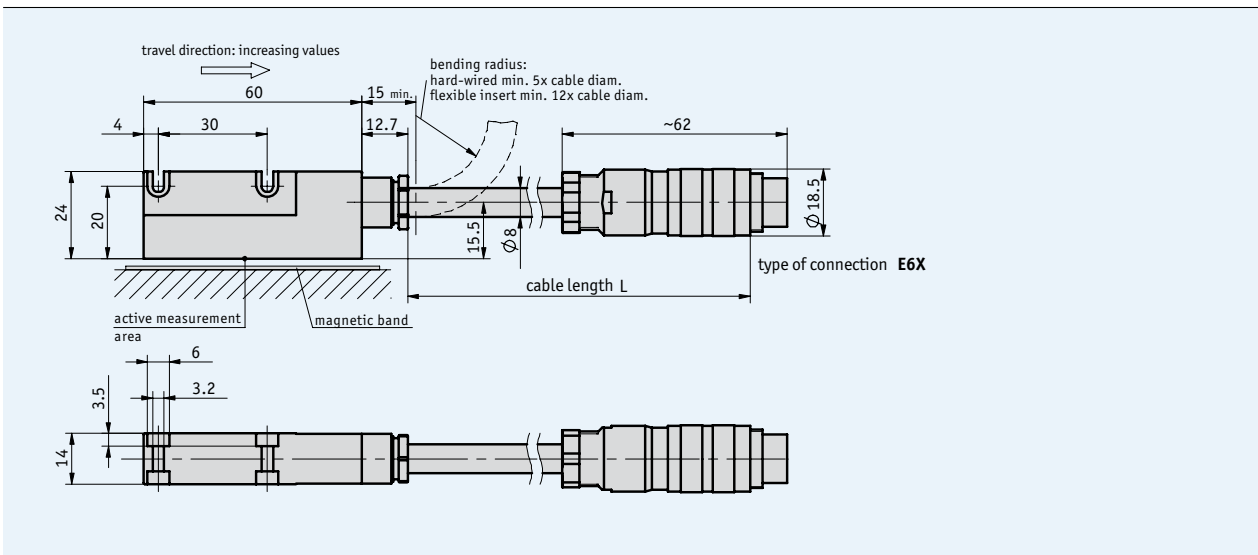


Profile

- Max. resolution of 1 μm in combination with AEA111/1
- Repeat accuracy $\pm 1 \mu\text{m}$ in combination with AEA111/1
- Additionally 1 V_{SS} for highly dynamic controls



5.1



Mechanical data

Feature	Technical data	Additional information
Scale embodiment	MBA111	
System accuracy	$\pm 10 \mu\text{m}$	
Repeat accuracy	max. $\pm 1 \mu\text{m}$	
Sensor/band reading distance	max. 0.1 mm max. 0.2 mm	(with cover strip on magnetic band) (without cover strip on magnetic band)
Travel speed	<0.3 m/s (SSI) <10 m/s (sin/cos)	static operation dynamic operation
Housing	aluminum	
Sensor cable	PUR	max. 20 m
Operating temperature	-10 ... +60 °C	
Storage temperature	-30 ... +80 °C	
Humidity	100 % rh	condensation permitted
Protection category	IP67	
Vibration resistance	10 g/50 Hz	
Max. measuring length	max. 4000 mm	

Electrical data

Feature	Technical data	Additional information
Operating voltage	fed by AEA111/1	
Current consumption	see AEA111/1	
Type of connection	round connector	
Output circuit	see AEA111/1	
Resolution	see AEA111/1	
Interference protection class	3	IEC-61000-6-2
Real-time requirement	real-time signal processing via AEA111/1	sin/cos output
Signal amplitude	1 V _{SS}	

Pin assignment

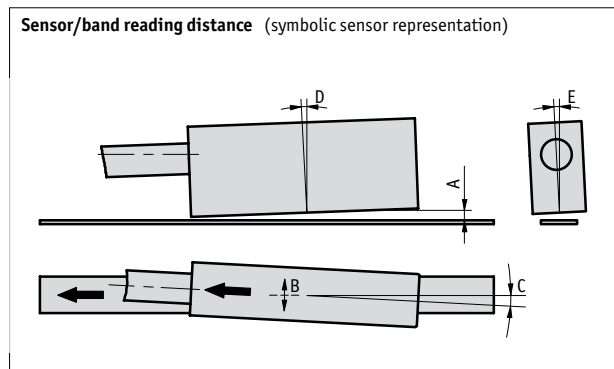
Signal	PIN
+UB	A
A_Abs	B
B_Abs	C
C_Abs	D
CS_0_Abs	E
CS_1_Abs	F
CS_2_Abs	G
Data_Abs_Digi	H
Data_Abs_Ana	I
GND	K
Sense+	L
Sense-	M
AVCC LK	N
sin+ LK	O
sin- LK	P
cos+ LK	R
cos- LK	S
AGND	T
Screen internal layers	U

5.1

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.

Cover strip auf MB	without	with
A , Sensor/band reading distance	max. 0.2 mm	max. 0.1 mm
B , Lateral offset	max. ±0.3 mm	max. ±0.3 mm
C , Misalignment	<±0.5°	<±0.5°
D , Longitudinal tilt	<±0.2°	<±0.2°
E , Lateral tilt	<±0.8°	<±0.8°



Order

Order note

This sensor is sold in Switzerland and Austria under the product name "AMSA111".

Order table

Feature	Order data	Specifications	Additional information
Cable length L	...	A 1 ... 20 m, in steps of 1 m	

Order code

MSA111 - E6X -

5.1

Scope of delivery: MSA111, User information, strain relief for sensor cable, distance gage

Accessories:

Cable extension KV18S0
Cable extension KV18S1

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Additional information:

Short Description, Technical Details
Product Overview

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