

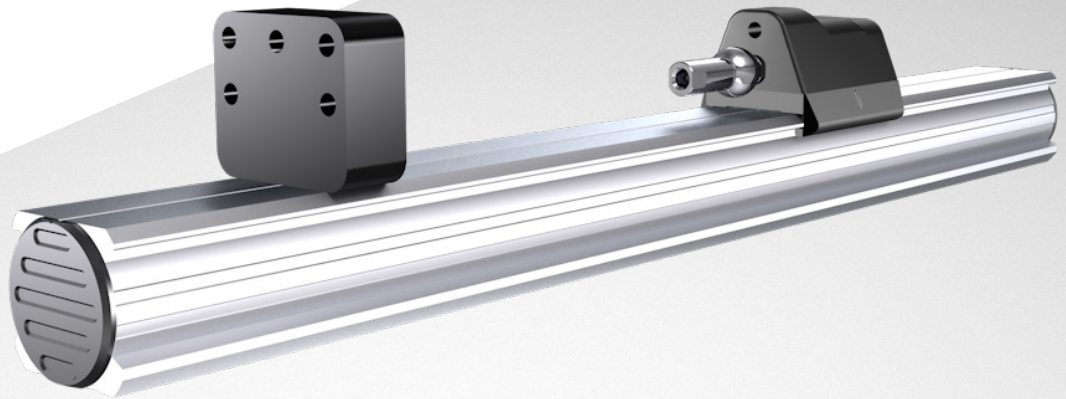
MAGNETOSTRICTIVE VELOCITY TRANSDUCER

Links to further documents for this series:

[Installation guide](#)

[Manual](#)

[Catalogue](#)



MAB-A SERIES

Key-Features:

- Measurement ranges from 50 to 2500 mm
- Distance and speed measurement
- Sliding or floating magnetic cursor
- Displacement speed up to 10 m/s
- Linearity up to $\pm 0.01\%$
- Operating temperature $-30...+75\text{ }^{\circ}\text{C}$
- Protection class IP67
- Output signals: Analog

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TECHNICAL DATA

		MAB-A	
Measurement range	[mm]	50 / 75 / 100 / 130 / 150 / 175 / 200 / 225 / 250 / 300 / 350 / 360 / 400 / 450 / 500 / 550 / 600 / 650 / 700 / 750 / 800 / 850 / 900 / 950 / 1000 / 1100 / 1200 / 1250 / 1300 / 1400 / 1500 / 1750 / 2000 / 2500	
Measured dimension		position / speed	
Measurement range speed		min. 0...0.1 m/s, max. 0...10 m/s	
Accuracy of speed output	[%]	<2	
Displacement speed	[m/s]	≤10	
Acceleration max.	[m/s ²]	≤100	
Linearity sliding magnetic cursor	[%]	±0,01 (min. ±0,06 mm)	
Linearity floating magnetic cursor	[%]	±0,02 (bei Abstand 2...5 mm) ±0,04 (bei Abstand 5...7 mm)	
Resolution		16 bit (noise max. 5 mVpp)	
Repeatability	[mm]	<0,01	
Hysteresis		<0,01 mm	
Sampling time position (table below)	[ms]	0,5 to 2	
Output signal		0...10 V	4...20 mA
Output value max.		12 V	30 mA
Stromaufnahme max.	[mA]	70	90
Current consumption max.		5 kΩ	<0,5 kΩ
Power supply	[VDC]	24 ±20 %	
Protection against polarity inversion		yes	
Protection against overvoltage		yes	
Operating temperature	[°C]	-30...+75	
Storage temperature	[°C]	-40...+100	
Temperature coefficient		≤ 0,005 %/°C	
Protection class		IP67	
Shock resistance acc. DIN IEC68T2-27		100 g - 11 ms - single shock	
Vibration resistance acc. DIN IEC68T2-6		12 g / 10...2000 Hz	
Electrical connection		connector M12	
Housing material		anodised aluminium, Nylon 66 G 25	

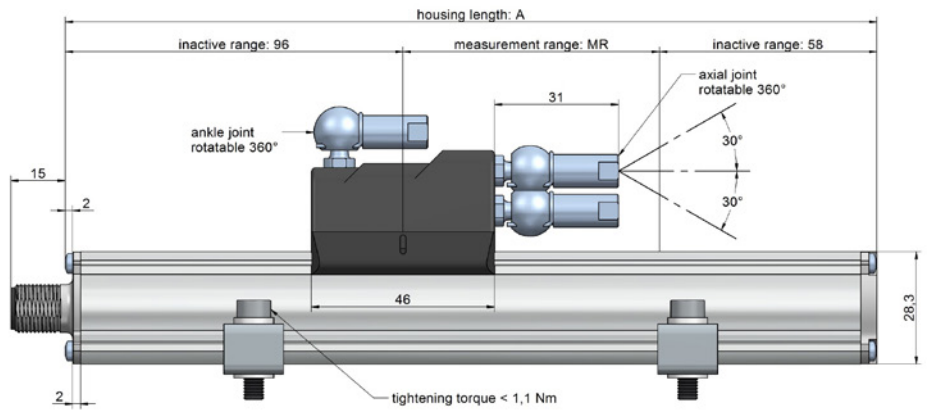
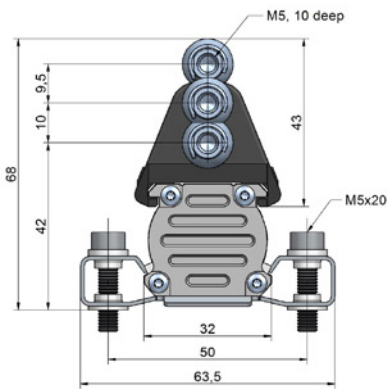
¹⁾ depends on distance between cursor and sensor

SAMPLING TIME AND DIMENSIONS

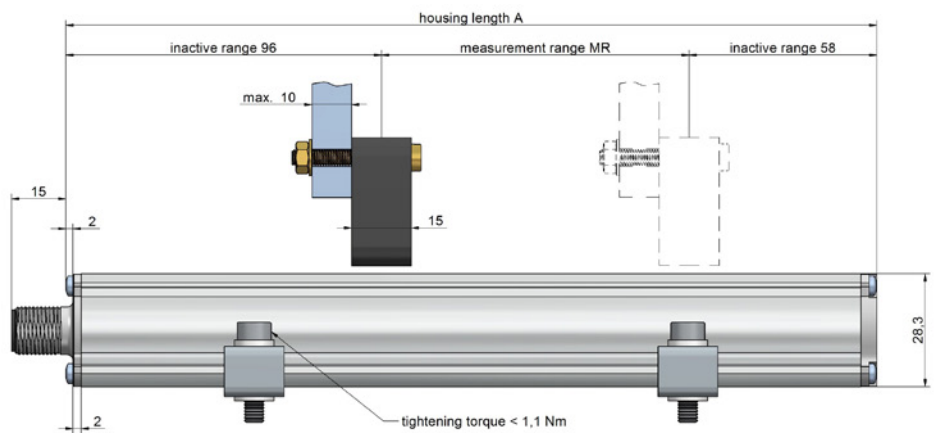
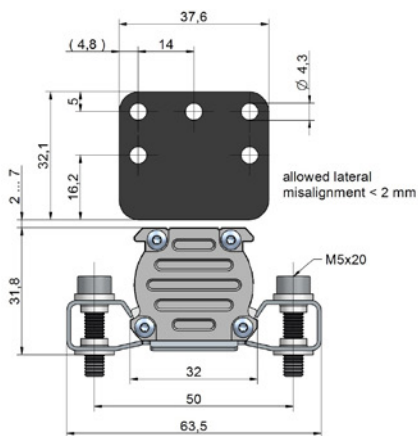
MAB-A					
Measurement range	[mm]	bis 300	350 bis 1100	1200 bis 2000	2500
Sampling time	[ms]	0,5	1	1,5	2
Overall housing length	[mm]	measurement range + 154			

TECHNICAL DRAWING

MAB, sliding magnetic cursor



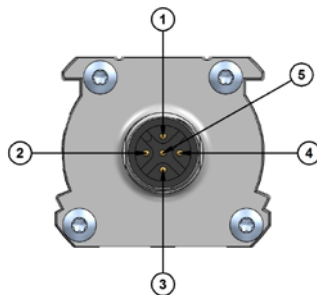
MAB, floating magnetic cursor



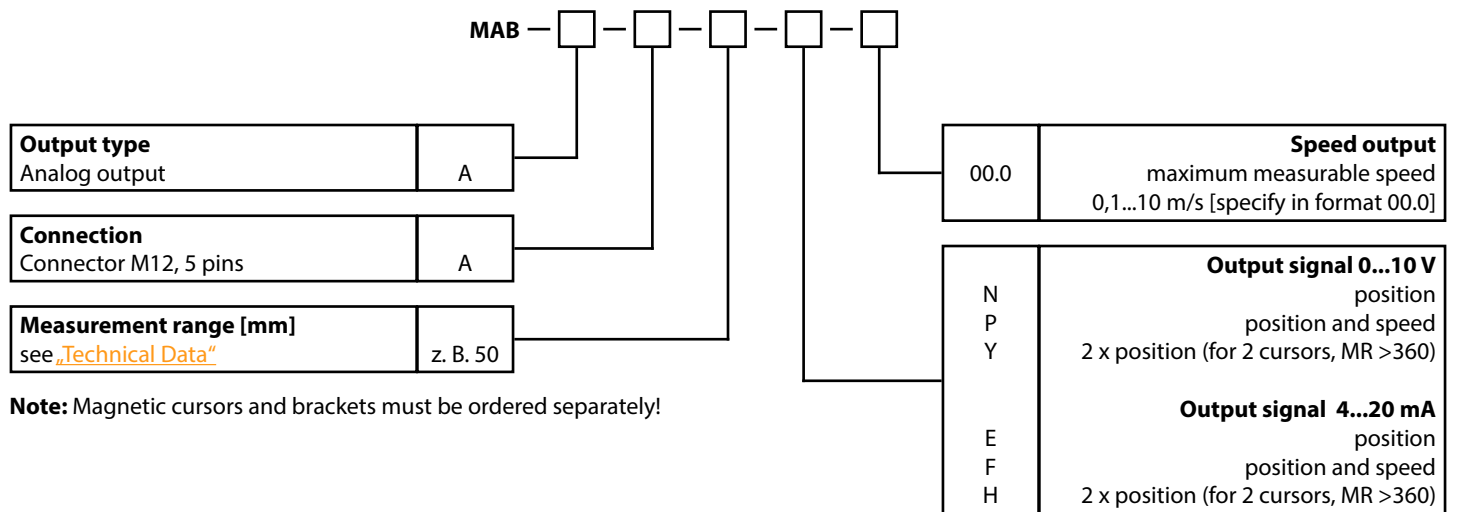
ELECTRICAL CONNECTION

MAB-A

Function	Pin
Output 1: 0...10 V, 4...20 mA	1
Output 1 and 2: GND	2
Output 2: 10...0 V, 20...4 mA	3
Supply GND	4
Supply +V	5



ORDER CODE ANALOG OUTPUT



ACCESSORIES

Magnetic cursors for analog output

PCUR210	guided sliding, axial joint, low
PCUR211	guided sliding, axial joint, high
PCUR212	guided sliding, angled joint
PCUR202	unguided floating

Cable with mating connector M12 (female) for analog output

K5P2M-S-M12	2 m, straight connector, 5 pins, shielded
K5P5M-S-M12	5 m, straight connector, 5 pins, shielded
K5P10M-S-M12	10 m, straight connector, 5 pins, shielded
K5P2M-SW-M12	2 m, angular connector, 5 pins, shielded
K5P5M-SW-M12	5 m, angular connector, 5 pins, shielded
K5P10M-SW-M12	10 m, angular connector, 5 pins, shielded

Mounting set

PKIT091	Brackets (2 pieces)
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Connector (female) for self assembly

D5-G-M12-S	straight connector M12, 5 pins, IP67
D5-W-M12-S	angular connector M12, 5 pins, IP67

Digital displays for sensors with analog output, 2 channel

WAY-AX-S	touch screen, supply: 18...30 VDC
WAY-AX-S-AC	touch screen, supply: 115...230 VAC

For more information and options please refer to the [WAY-AX data sheet](#).

Subject to change without prior notice.

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