

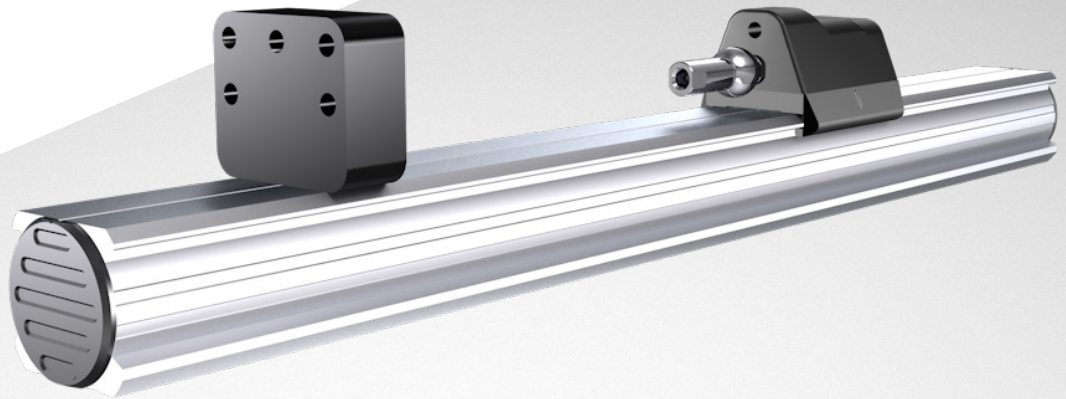
MAGNETOSTRICTIVE VELOCITY TRANSDUCER

Links to further documents for this series:

[Installation guide](#)

[Manual](#)

[Catalogue](#)



MAB-A-C 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, CANopen

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TECHNICAL DATA

		MAB-A		MAB-C
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		depending on the scale
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)		±0,02
Linearity floating magnetic cursor	[%]	±0,02 (bei Abstand 2...5 mm) ±0,04 (bei Abstand 5...7 mm)		±0,02
Resolution		16 bit (noise max. 5 mVpp)		5 µm (2 µm on request)
Repeatability	[mm]			<0,01
Hysteresis				<0,01 mm
Sampling time position (table below)	[ms]	0,5 to 2		1 to 4
Output signal		0...10 V	4...20 mA	CANopen DS 301
Output value max.		12 V	30 mA	-
Stromaufnahme max.	[mA]	70	90	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		20 ppm/°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

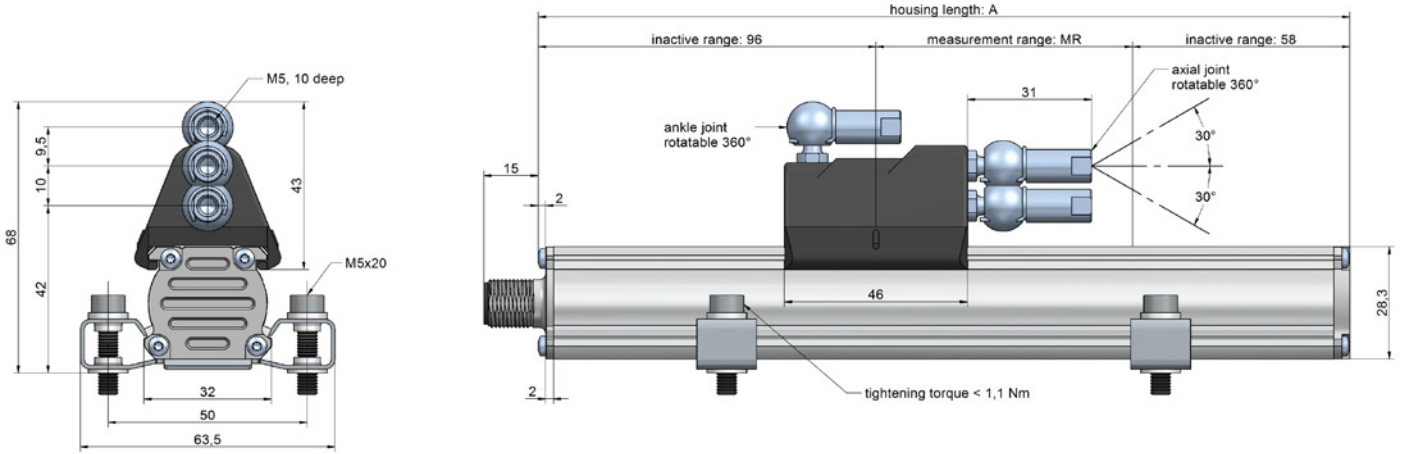
¹⁾ depends on distance between cursor and sensor

SAMPLING TIME AND DIMENSIONS

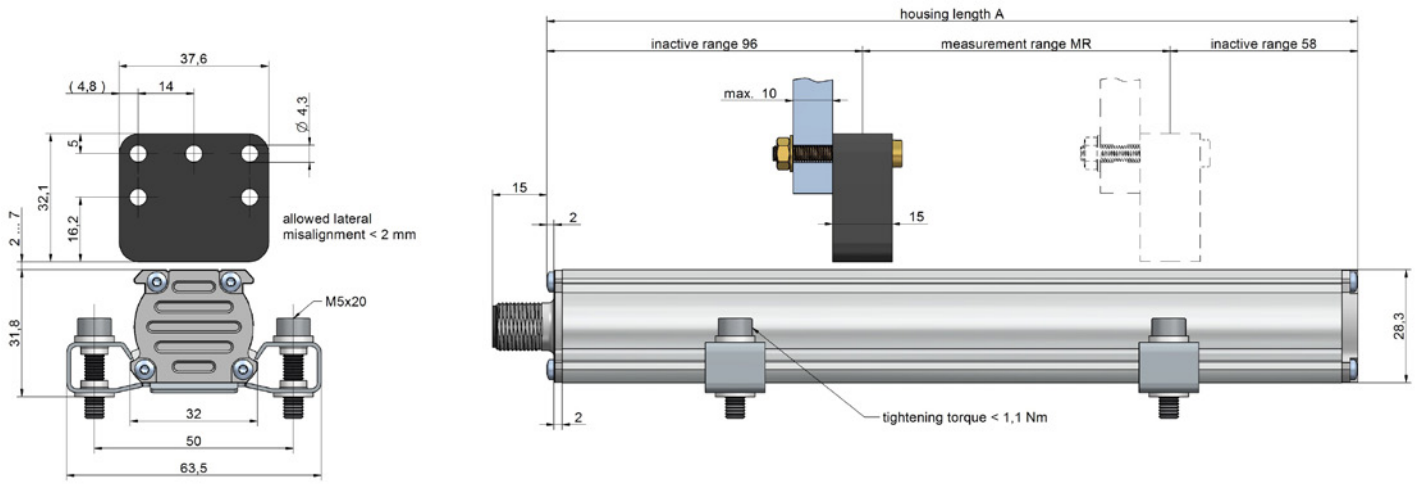
MAB-A					
Measurement range	[mm]	bis 300	350 bis 1100	1200 bis 2000	2500
Sampling time	[ms]	0,5	1	1,5	2
Overall housing length	[mm]	measurement range + 154			
MAB-C					
Measurement range	[mm]	bis 1100	1200 bis 2000	2500	
Sampling time	[ms]	1	2	4	
Overall housing length	[mm]	measurement range + 154			

TECHNICAL DRAWING

MAB, sliding magnetic cursor



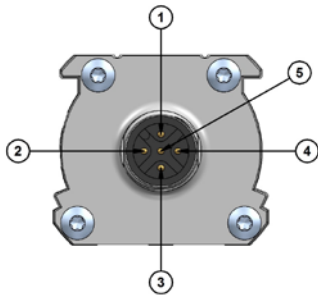
MAB, floating magnetic cursor



ELECTRICAL CONNECTION

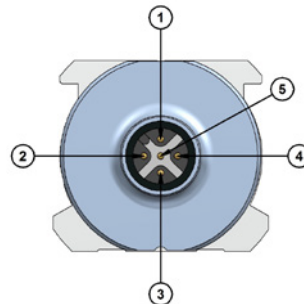
MAB-A

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

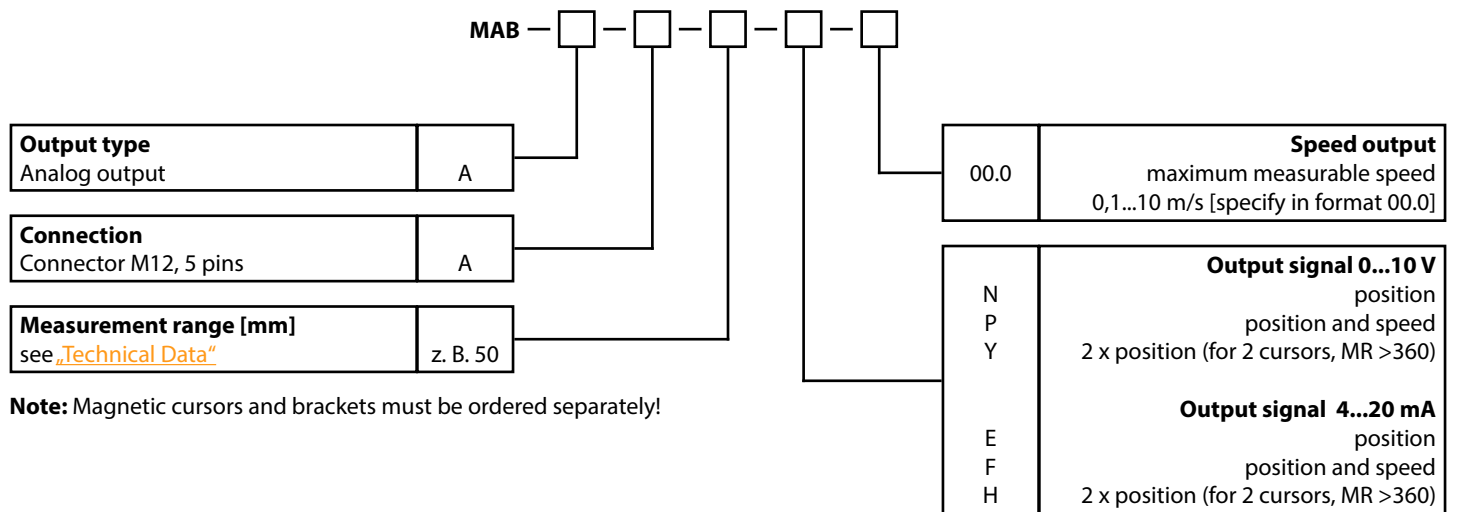


MAB-C

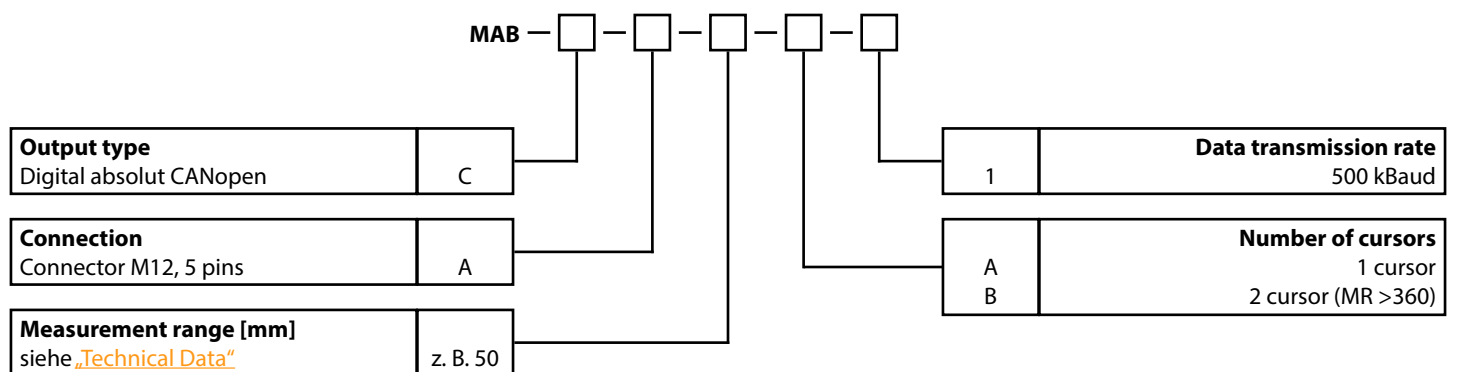
Function	Pin
n. c.	1
Supply +V	2
Supply GND	3
CAN H	4
CAN L	5



ORDER CODE ANALOG OUTPUT



ORDER CODE DIGITAL ABSOLUTE CANOPEN



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

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](#).

Positionsmagneten für CANopen

PCUR045	guided sliding, axial joint, low
PCUR046	guided sliding, axial joint, high
PCUR047	guided sliding, angled joint
PCUR068	unguided floating

Cable with mating connector M12 (female) for CANopen

K5P2M-SB-M12-CAN	2 m, connector male, plug female
K5P2M-S-M12-CAN	2 m, connector male, open ends
K5P2M-B-M12-CAN	2 m, plug female, open ends

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

Subject to change without prior notice.

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