

Code	Project	Release	
ST04	A48-B	В	TECHNICAL DATASHEET

ABSOLUTE MAGNETIC SENSOR AGM - CANopen

GENERAL FEATURES

- Linear magnetic sensor, with direct reading of the absolute position.
- Resolutions up to 1 µm.
- Measuring length up to 30 000 mm.
- · CANopen protocol.
- · Contactless reading.
- Extremely easy and fast mounting of the entire measuring system, with wide alignment tolerances.
- · Small size, to allow installation in narrow spaces.
- · Axial or radial cable output.



MECHANICAL AND ELECTRICAL CHARACTERISTICS

MECHANICAL

- Magnetic sensor with die-cast body.
- Possibility to fix the magnetic sensor with M4 screws or with through M3 screws.
- · Wide alignment tolerances.
- Robust sealed cable exit.

ELECTRICAL

- Reading through positioning sensor based on magneto resistance, with AMR effect (Magnetic Anisotropy).
- Electrical protection against inversion of power supply polarity and short circuits on output ports.
- CABLE:
 - Standard for CAN bus connection, 2x2x0.34
 - Standard length 0.3 m.
 - The cable is suitable for continuous movements.

The cable's bending radius should not be lower than 80 mm.

SIGNALS	CONDUCTOR COLOR
SCH	Shield
+ V	Brown
0 V	White
CAN_H	Green
CAN_L Yellow	
	SCH + V 0 V CAN_H

Cod. AGM	M		
Pole pitch	2+2 mm		
Repeatability	± 1 increment		
Serial interface	CAN bus		
Protocol - Profile	CANopen: encoder DS406 V. 3.1 communication DS301 V. 4.02 LSS service DS305 V.2.0		
Resolution absolute position	100 - 50 - 10 - 5 - 1 μm		
Accuracy	± 15 μm		
Measuring length ML	up to 30 000 mm		
Max. traversing speed	300 m/min *		
Vibration resistance (EN 60068-2-6)	200 m/s ² [55 ÷ 2 000 Hz]		
Protection class (EN 60529)	IP 67		
Operating temperature	0 °C ÷ 50° C		
Storage temperature	-20 °C ÷ 70° C		
Relative humidity	100%		
Current consumption with 24 Vdc	60 mA _{MAX}		
Electrical connections	see related table		
Electrical protections	inversion of polarity and short circuits		
Weight	80 g		

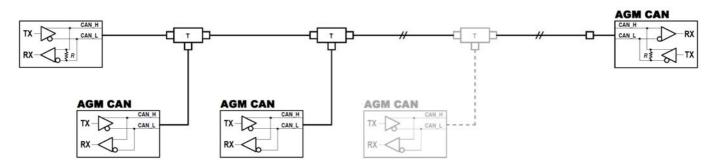
网址: www.gschi.com

 $^{^{\}star}$ With a 1 μm resolution, the maximum traversing speed becomes 90 m/min.

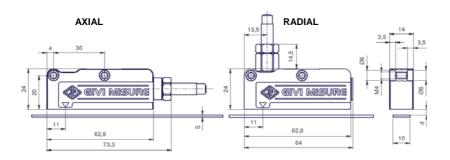


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CABLE



SENSOR DIMENSIONS



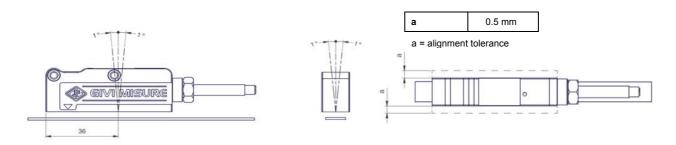
values in mm	MP200A	MP200A + CV103	MP200A + SP202
s	1.3	1.6	2.1
d	0.3 ÷ 1	0.7 _{MAX}	0.2 _{MAX}

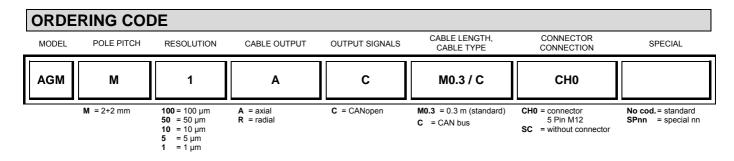
s = thickness

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d = distance to be maintained between sensor and surface of the magnetic band (or eventual cover/support)

SENSOR ALIGNMENT TOLERANCES





Example > ABSOLUTE MAGNETIC SENSOR AGM M1A C M0.3 / C CH0