

MAGNETIC SCALE



Series MXAZ

Key-Features:

- Measurement ranges up to 1250 mm
- Cost effective non-contacting absolute encoder
- Analog output: 4...20 mA, 0...10 V
- Teachable resolution
- IP68
- Self-diagnostics on tape distance & integrity
- Operating temperature range from -25°C to +85°C

Content:

Technical Data2
Technical Drawing3
Order Code4
Accessories4

TECHNICAL DATA

Sensor MXAZ

Measurement range	[mm]	max. 1250 (Tape length - 80 mm)
Resolution		teachable
Sensor linearity	[μm]	max. ± 2
Repeat linearity		± 1 increment
Output		4...20 mA, 0...10 V
Position refresh	[μs]	100
Power supply	[VDC]	13...30
Power consumption	[W]	max. 1
EMC		according to EN 61000-6-2 level 3
Shock		250 g, 6 ms according to CEI EN 60068-2-27
Vibrations		10 g, 5-2000 Hz according to CEI EN 60068-2-6
Protection class		IP68 (IP69K on request)
Operating temperature range	[$^{\circ}\text{C}$]	-25...+85
Storage temperature range	[$^{\circ}\text{C}$]	-40...+100
Housing material		Macromelt OM 646-EN
Electrical connection		Hi-flex cable with open wires or cable with connector M12 8 pins
Gap between sensor/tape	[mm]	0.1...2
Travel speed (mechanical)	[m/s]	max. 5
Function		Teach-in of output range

Magnetic Tape WBAZ

Length	[mm]	max. 1330
Protection class		IP67
Operating temperature range	[$^{\circ}\text{C}$]	-40...+120
Storage temperature range	[$^{\circ}\text{C}$]	-40...+120
Thermal expansion coefficient	[K^{-1}]	$16 \cdot 10^{-6}$
Accuracy class	[$\mu\text{m}/\text{m}$]	± 35

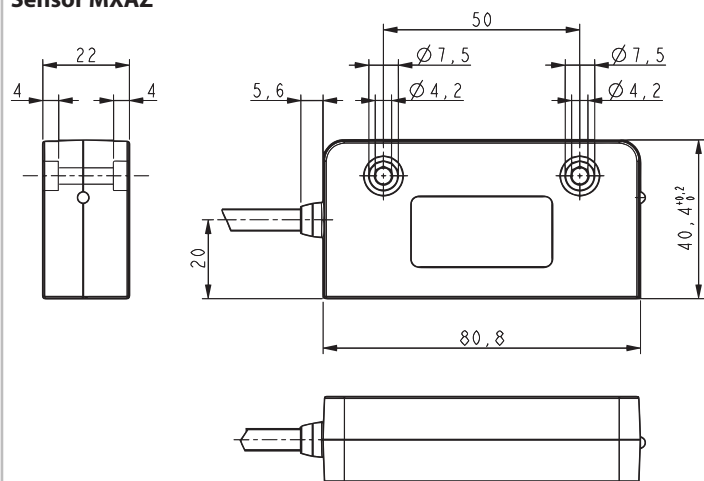
Magnetic Tapes WBAZ Chemical Resistance Information

Acetone	••	Kerosene	•	Seawater	••
Acetylene	••	Ketone	•••	Steam heat	•
Antifreeze (Glacial acetic acid)	•	Mineral / Motor oil	•	Thinner	•••
Benzene	•••	Petrol	••	Turpentine	••
Heptane	•••				

• No effect or low effect •• Low to Medium effect ••• Strong effect

TECHNICAL DRAWING

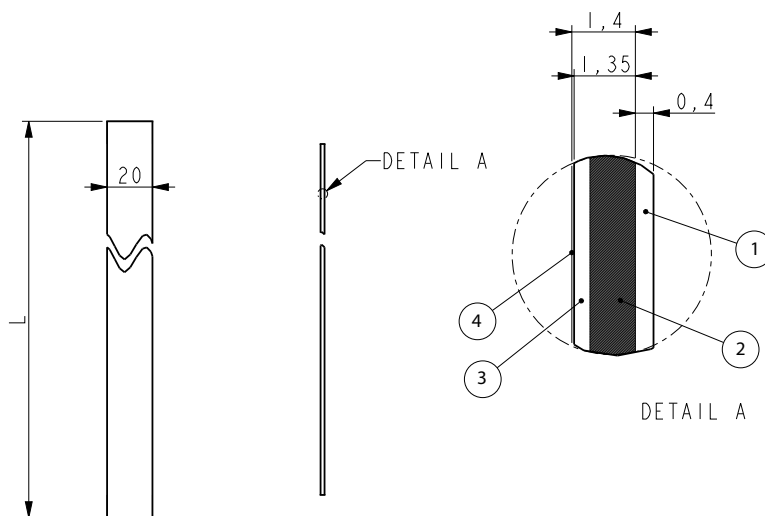
Sensor MxAZ



Diagnostic LED

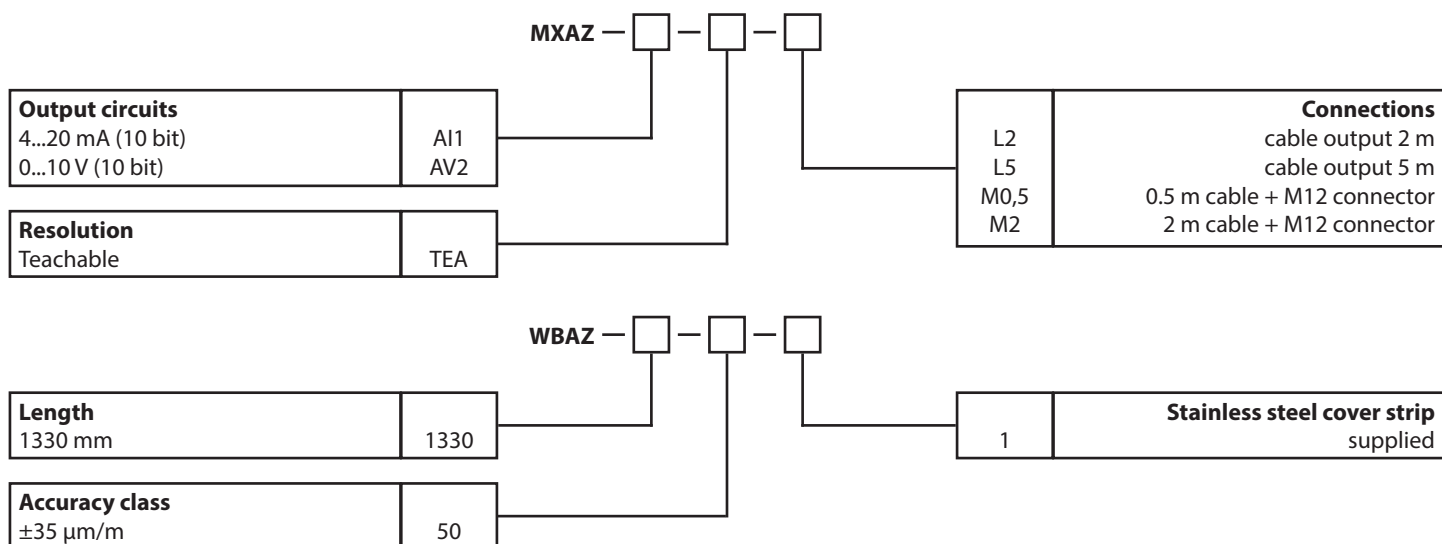
ON	The sensor is running properly, there are no active errors
Blinking at high frequency (100 ms ON / 100 ms OFF)	Machine data parameters error
Blinking slowly (500 ms ON / 500 ms OFF)	Flash memory error
Blinking very slowly (1 s ON / 1 s OFF)	Error of the sensors while reading the magnetic tape
Single flash (200 ms ON / 1 s OFF)	The sensor is installed too far from the magnetic tape, the installation does not comply with the tolerance values between the sensor and the tape
Double flash (200 ms ON twice / 1 s OFF)	Several errors are active in the same time

Magnetic Tape WBAZ



- 1 Stainless steel cover strip
- 2 Plastroferrite tape
- 3 Base tape
- 4 Adhesive tape
- L Magnetic tape length

ORDER CODE



ACCESSORIES

Cables with mating connector M12, 8 poles, shielded, IP67

K8P2M-S-M12	2 m, connector straight
K8P5M-S-M12	5 m, connector straight
K8P10M-S-M12	10 m, connector straight

Mating connector M12, 8 poles, shielded

D8-G-M12-S	mating connector, straight
D8-W-M12-S	mating connector, angular

Subject to change without prior notice.

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