

MW208120

LINEAR AND ANGULAR MEASUREMENT • MAGNETIC

For length measurement, rotational speed or angle measurement, magnetic measuring systems are used. These systems operate in a way that the sensor moves without contact over a flexible magnetic tape, or it is situated above the rotating magnetized measuring wheel. The magnetic tape is applied to a 0.3mm thick steel strip and is located on the circumference of the various measuring wheels. The magnetization is carried out with defined pole pitches. By scanning of the magnetic poles an analog signal is generated, which is converted into digital square wave signals that can be processed by a downstream electronics and, if necessary, be displayed. The sensor detects the pitch of the strip and converts the information into a high-resolution path or rotation information. To read out the magnetic lines no direct contact is required. Magnetic sensors are insensitive to dirt, oils and moisture and relatively stable at shock and vibration. For users, this opens up a wide field of applications, e.g. for plants and systems in the timber industry, at linear axes, in outdoor areas or with machine tools.



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MECHANICAL DATA

Ambient temperature (MAX)	60 °C
Degree of protection (IP)	IP65
Housing material	Aluminium
Length	89.5 mm
Max. traverse speed	5 m/s
Sensor height	20 mm
Sensor length	89.5 mm
Sensor width	20 mm
Shock resistance, acceleration	50 g
Shock resistance, pulse time	11 ms
Storage temperature	80 °C
Storage temperature	-20 °C
Vibration resistance, acceleration	10 g
Vibration resistance, frequency	50 Hz

ELECTRICAL DATA

Absolute linear measurement	Yes
Absolute measurement	Yes
Absolute repeat accuracy	10 µm
Max. measuring length	5120 mm
No-load current	125 mA
Number of pins	8
Power consumption	3 VA
Pulse interval	10 µs
Rated operating voltage (MAX)	30 V
Rated operating voltage (MIN)	10 V
Resolution	10 µm

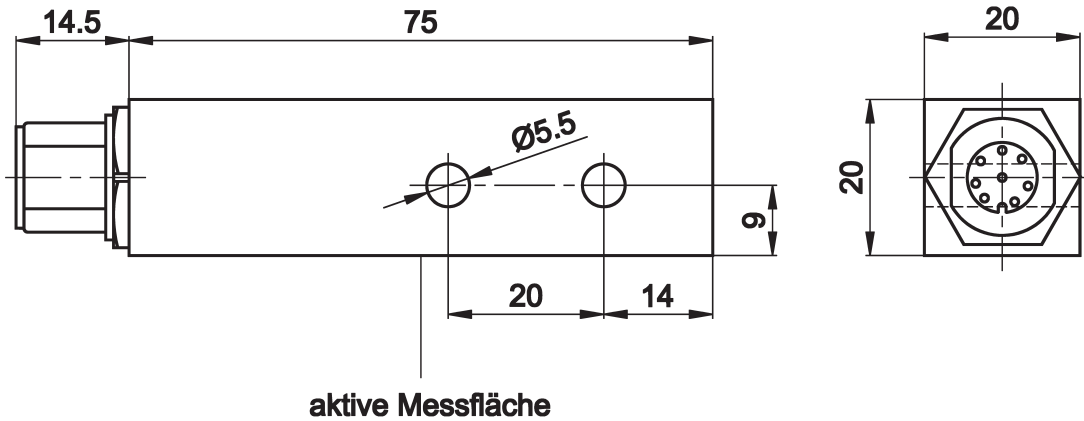
ELECTRICAL DATA

Reverse polarity protection	Yes
Sensing range (MAX)	1 mm
Sensing range (MIN)	1 mm
Short-circuit-proof	Yes
Suitable for absolute value detection	Yes
Type of electrical connection	Connector M12
Type of switching output	TTL level
Voltage type	DC
With communication interface, SSI	Yes

OTHER DATA

Relative air humidity	100 %
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DIMENSIONAL DRAWING



INSTALLATION



Mounting / Installation may only be carried out by a qualified electrician!

DISPOSAL



SAFETY WARNINGS

Before initial operation, please make sure to follow all safety instructions that may be provided in the product information!

Never use these devices in applications where the safety of a person depends on their functionality.