

MW100155

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	-10 °C ... 70 °C
Cable length	2 m
Degree of protection (IP)	IP67
Housing material	Plastic
Length	25 mm
Material of cable sheath	PUR (Polyurethane)
Max. traverse speed	25 m/s
Sensor height	37 mm
Sensor length	25 mm
Sensor width	10 mm
Shock resistance, acceleration	50 g
Shock resistance, pulse time	11 ms
Storage temperature	80 °C
Storage temperature	-30 °C
Vibration resistance, acceleration	10 g
Vibration resistance, frequency	50 Hz

ELECTRICAL DATA

Large sensing range	Yes
No-load current	25 mA
Number of pins	4
Rated operating voltage	24 V ... 24 V
Relative repeat accuracy	+/-1 increment
Resolution	250 µm
Reverse polarity protection	Yes
Sensing range	1 mm ... 10 mm
Short-circuit-proof	Yes

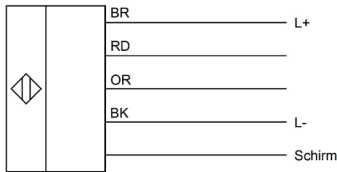
ELECTRICAL DATA

System accuracy	1+0.03*L (magnetic strip length L in mm)
Track A inverted	Yes
Track B inverted	Yes
Type of electrical connection	Cable
Type of switching output	TTL level
Voltage type	DC

OTHER DATA

Relative air humidity	100 %
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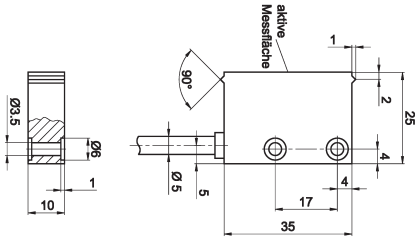
CONNECTION



Colors: BN (brown), RD (red), OG (orange), BK (black)

Functions: BN = L+, RD = A, OG = B, BK = GND

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!