

**MW98E034**

**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.



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.

**MECHANICAL DATA**

Ambient temperature	-40 °C ... 85 °C
Degree of protection (IP)	IP67
Housing material	Aluminium
Length	516 mm
Max. traverse speed	10 m/s
Sensor height	37.5 mm
Sensor length	516 mm
Sensor width	38 mm
Shock resistance, acceleration	100 g
Shock resistance, pulse time	11 ms
Storage temperature	105 °C
Storage temperature	-40 °C
Vibration resistance, acceleration	20 g
Vibration resistance, frequency	50 Hz

**ELECTRICAL DATA**

Absolute linear measurement	Yes
Absolute measurement	Yes
Absolute repeat accuracy	90 µm
Hysteresis	0.03 %
No-load current	100 mA
Number of pins	8
Operating principle	Magnetostrictional
Rated operating voltage	24 V ... 24 V
Resolution	4.58 µm
Sensing range	0.5 mm ... 3 mm
Suitable for absolute value detection	Yes

**ELECTRICAL DATA**

Type of analog output	4 mA ... 20 mA
Type of electrical connection	Connector M12
Type of switching output	Push-pull level
Voltage type	DC
With communication interface, SSI	Yes

**OTHER DATA**

Air humidity	95 %
Relative air humidity	95 %

**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!