

# MW110431

## Linear and angular measurement • magnetic

linear measurement sensor, magnetic, 37x25x10mm, Relative, Sn: 0.4-2, 24V, Push-pull level, Cable 6pin 2m PUR (Polyurethane), IP67, Plastic, 1.7m/s

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.

### Electrical features

Type of electrical connection	Cable
Type of switching output	Push-pull level
Operating voltage (DC)	24 V
Operating principle	Relative
Short-circuit protection	Yes
No-load current	70 mA
Line diameter	5 mm
Measuring range	0,4 - 2 mm
Number of pins	6
Pulse interval	4 µs
Track A inverted	Yes
Track B inverted	Yes
Reverse polarity protection	Yes

### Mechanical features

Sensor width	10 mm
Sensor height	37 mm
Cable length	5 m
Storage temperature	-30 - 80 °C
Length	25 mm
Sensor length	25 mm
Max. traverse speed	1.7 m/s
Degree of protection (IP)	IP67
Ambient temperature	-10 - 70 °C
Housing material	Plastic

**Other features**

Air humidity	0 - 100 %
Measuring range	0,4 - 2 mm

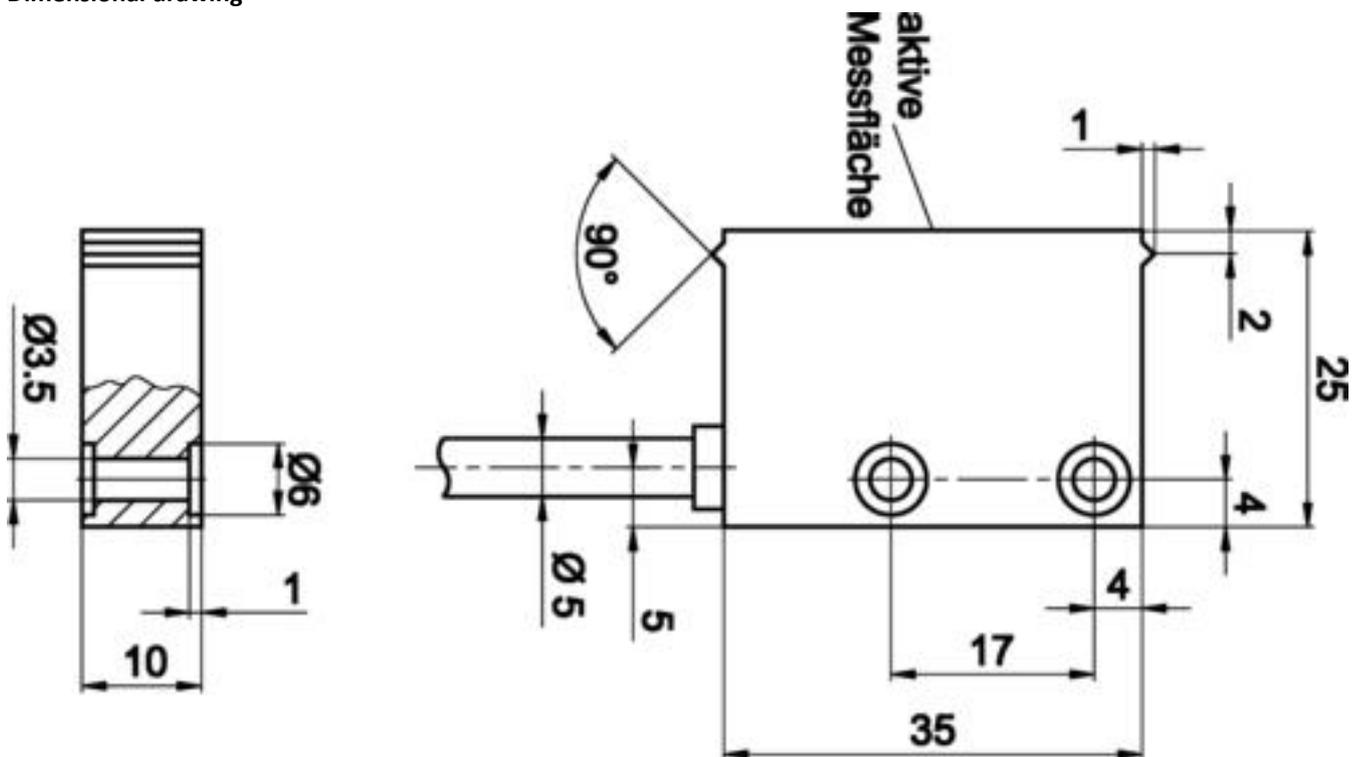
**Classification**

eClass 7.0	27270790
eClass 7.1	27270790
eClass 8.0	27270790
eClass 9.0	27270790
eClass 9.1	27270790
ETIM 8	EC001852 Wegsensor

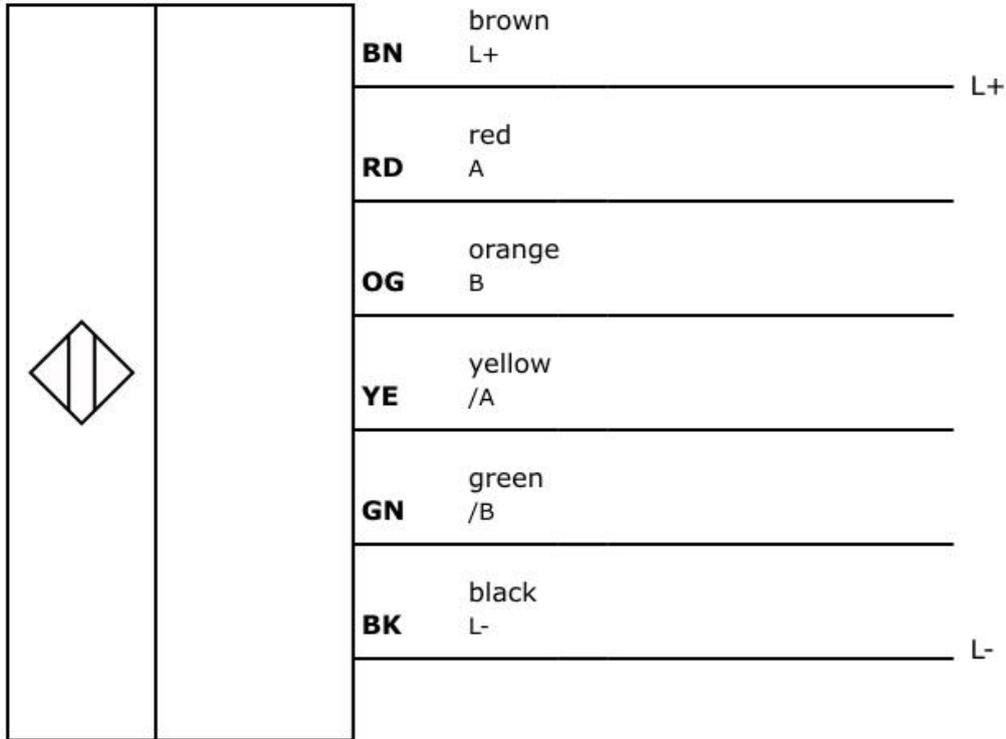
**More**

IPF Product Group	235 magnetic linear measurement systems
packaging dimensions	149 x 124 x 35 mm
gross weight	230 g
Customs tariff number	90318020
WEEE number	40951076

**Dimensional drawing**



**Connection**



**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.

For suitable connection and mounting accessories, please refer to our website [www.ipf-electronic.com](http://www.ipf-electronic.com).