MEMBRANE SENSOR MMP

This absolutely measuring, wear-free membrane sensor measures without contact and is hermetically sealed.

The signal is detected contactlessly using a magnet guided at a defined distance from the sensor.

Advantages
– Adjustable measuring range: 50 – 500 mm
– Easy to install
– Particularly flat design, less than 2 mm thick
– Good resolution, precision and measurement accuracy

Application examples
– Seat adjustment with memory function
– Web guiding systems for printing machines
– Cylinder stroke measurement
– Valve control



General data	
Sensor technology	Potentiometric
Type of contact	Non-contact, magnetic
Sensor type	Absolute measuring
Curcuit	As voltage divider

Electrical data	
Measuring range	50 to 500 mm, adjustable
Independent linearity	± 2 %
Resolution	0.1 mm achievable
Resistance range	2.5 kΩ per 100 mm travel
Resistance tolerance	± 30 %
Max. wiper current	5 mA in case of malfunction
Supply voltage	5 VDC typ., 3 to 30 VDC possible
Output signal	Analog 0 to 100 % of supply voltage

Mechanical data	
Dimensions	See drawings
Sensor thickness	< 2 mm
Travel speed	≤ 3 m/sec
Measuring distance magnet – sensor	Up to 2 mm air gap
Mounting	Self-adhesive
Lifetime	50 million cycles

Environmental data	
Operating temperature sensor	-10 °C to +70 °C
Operating temperature magnet	80 °C, optional 150 °C
Protection class acc. to IEC 60529	IP 65*
EMC	Uncritical
ESD	Uncritical

Material	
Basic material	Polyester Other materials on request

Electrical connection	
	Crimp contact Solder pad Connector Pitch 2.54 mm

* except for electrical connection and connector

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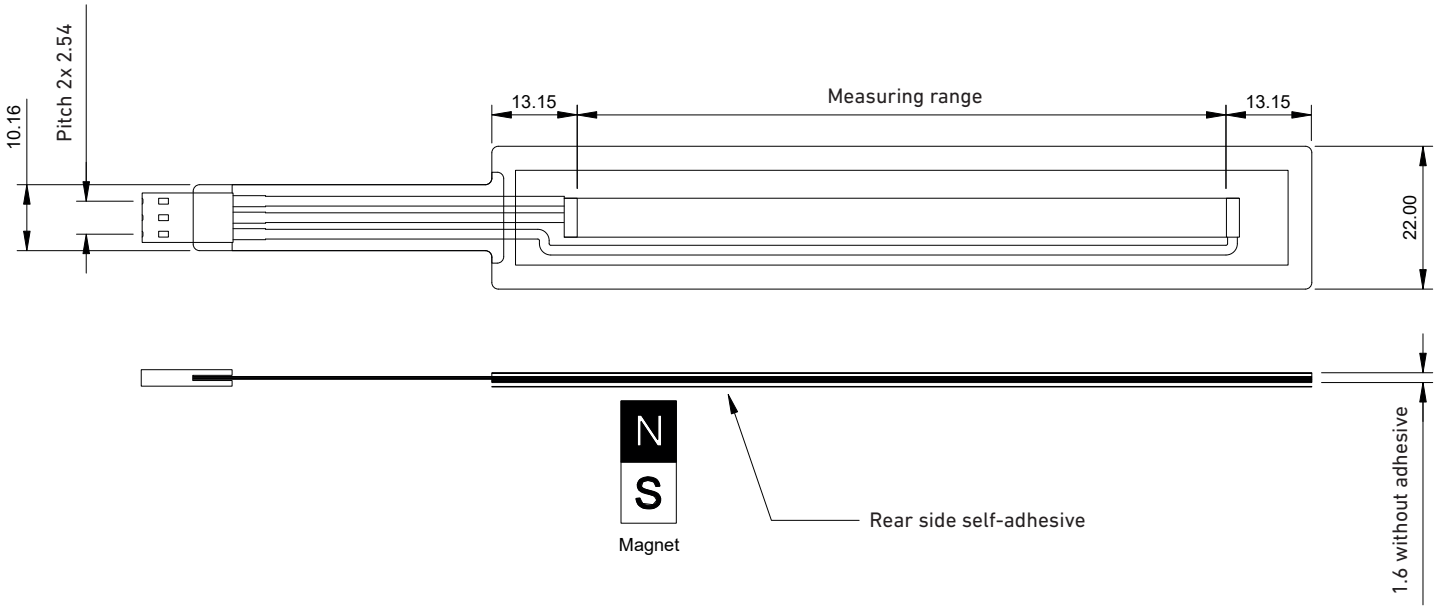
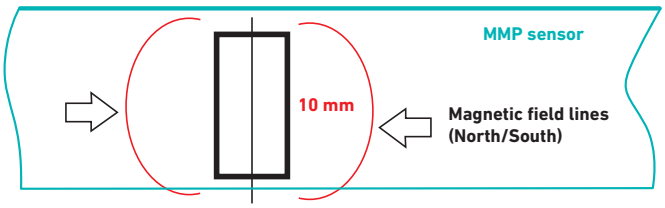


All dimensions in mm

Magnet orientation



Installation instructions

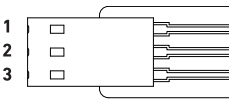
To install the sensor, remove the protective film on the rear side.
To ensure proper installation and function, the surface to which the sensor is to be applied must meet the following properties:
– be flat and smooth
– be free of moisture, oil, grease, and dust

Please use a suitable cleaning agent, for example, isopropanol or MEK, to clean the carrier material. Avoid temperature differences between the sensor and the carrier material.

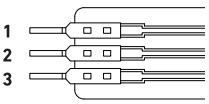
Adhesive tape: The recommended processing temperature is 18°C to 35°C.

Storability is 2 years at room temperature and a humidity of 50 to 70%.

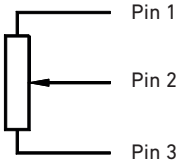
Electrical connection



Connector



Solder pad / Crimp contact



Sample order

Article no.	Product name	Measuring range	Electrical connection
E090100100	MMP	100 mm	Connector
H907040001	Block magnet 10 x 5 x 4 mm, 80 °C		
H907040004	Block magnet 10 x 5 x 4 mm, 150 °C		

Metallux cannot picture the customer's operating and application conditions and the customer's existing environmental influences.
We therefore recommend that you carry out your own investigations into the planned use of the products under the actual operating conditions.

We continuously improve our products and also update our data sheets regularly. In this respect, there may be changes in the specification.
These changes will apply to orders received by us from the time of the update, unless otherwise agreed.

Our products comply with Directive 2011/65/EU (RoHS) including Directive 2015/863/EU and Regulation (EC) No. 1907/2006 (REACH).