Warnings

- Do not open the sensor housing.
- The supply voltage must not exceed the specified limits.
- Do not pull or loop the measuring wire around unprotected parts of the body.
- Do not pull out the measuring wire beyond the measuring range listed.
- Do not let the measuring wire snap.

> Risk of injury due to whiplash of the wire with mounting bolts/hooks, destruction of the wire or the sensor

- Do not damage the measuring wire.
- Do not oil or grease the measuring wire.
- Do not kink the measuring wire, do not pull the measuring wire diagonally.
- Do not let the measuring wire drag around objects.
- Attach the measuring wire to the measured object while the wire is retracted.

> Damage to or destruction of the sensor

Sensor Mounting

➡ Mount the sensor with two M4 screws on the two ø 4.3 mm holes (-MP / -MPW), or with two M3 screws on the two ø 3.2 mm holes (-MPM).

The sensor does not have to be oriented in a special way.

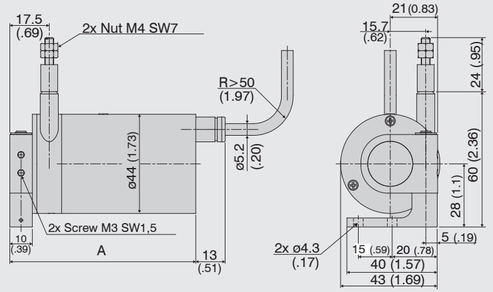
➡ Select the installation position in such a way that damage to or contamination of the measuring wire is avoided.

i If possible, prefer an installation position in which the measuring wire exits downward. This prevents liquids from entering the measuring wire outlet.

Proper Environment

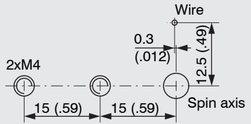
- Protection class: IP65 (MP, MPM); IP67 (MPW)
- Temperature range:
  - Operation: -20 ... +80 °C (-4 ... +176 °F)
  - Storage: -20 ... +80 °C (-4 ... +176 °F)
- Humidity: 5 ... 95 % RH (non-condensing)
- Ambient pressure: Atmospheric pressure
- Vibration: According to DIN EN 60068-2-6
- Shock: According to DIN EN 60068-2-27

Dimensional Drawings

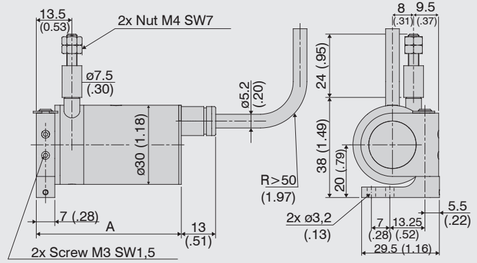


Dimensional drawing WDS - ... - MP / MPW, dimensions in mm (inches, rounded off)

Series WDS-	MP	MPW
A	82.5 (3.25)	86.5 (3.41)

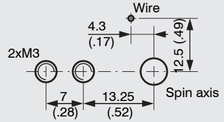


Drilling pattern WDS - ... - MP / MPW, dimensions in mm (inches, rounded off)



Dimensional drawing WDS - ... - MPM, dimensions in mm (inches, rounded off)

Series WDS -	50-MPM	150-MPM	250-MPM	50-MPM-HG	150/250-MPM-HG
A	55 (2.17)	64 (2.52)		61 (2.40)	70 (2.76)

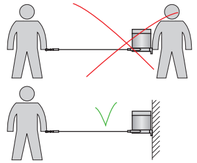


Drilling pattern WDS - ... - MPM, dimensions in mm (inches, rounded off)

Guiding and Attaching the Wire

If the measuring wire has to be extracted from the sensor to guide the wire or to fix it to the target,

- the sensor must not be held by a second person
- do not pull out the measuring wire beyond the measuring range listed
- the area around the sensor must be protected against snapping of the measuring wire.



➡ Fix the measuring wire to the target using a M4 threaded bolt.

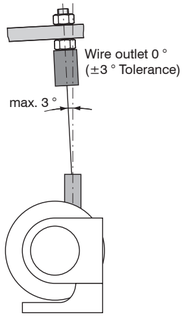
➡ Guide the measuring wire vertically out of the sensor housing.

Diagonal pull is only permitted up to 3 degrees.

If you drag the measuring wire over the insertion hole or other objects, the measuring wire will be damaged and/or tear.

i If the measuring wire cannot be fed vertically out of the housing, it is essential to use a guide pulley, see Optional Accessoires in the Appendix of the Operating Instructions.

➡ Guide the measuring wire in a protected area so that it cannot get caught or otherwise be damaged.



Attachment and maximum diagonal pull of the measuring wire

MICRO-EPSILON

Setup Guide
wireSENSOR
WDS Series
MP / MPW / MPM

Sensor Pin Assignment

Draw-wire displacement sensors with integrated connection cable are connected according to the color assignment.

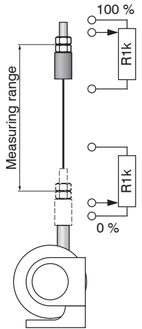
➡ Use any potentiometer only when switched to voltage divider.

Using it as a variable resistor destroys the component.

Max. contact currents:

- < 10 µA with hybrid potentiometer
- ≤ 3 mA with conductive plastic and wire potentiometers

Electrical connection		Output
- C Integrated cable		- P Potentiometer
Color DIN47100		
White	Input +	
Green	Signal	
Brown	Ground	



Pin assignment

i Use potentiometers only as voltage dividers, not as variable series resistors.

Declaration of Incorporation

Declaration of incorporation according to EC Machinery Directive 2006/42/EC, Annex II B

The manufacturer and person authorized to compile the relevant technical documents

MICRO-EPSILON MESSTECHNIK GmbH & Co. KG
Königbacher Straße 15, 94496 Ortenburg / Germany

hereby declare that the machine designated below complies with the relevant fundamental health and safety requirements of the EC Machinery Directive, including modifications to it applicable at the time of this declaration, based on its design and construction and in the version put on the market by us – to the extent that the scope of supply allows.

Machine design: Draw-wire sensor (mechanics and models with potentiometer output)
Type designation: WDS-xxx, WPS-xxx

The following fundamental health and safety requirements according to Annex I of the directive specified above have been applied and complied with:

- No. 1.1.2. Principles of safety integration
- No. 1.7.3. Marking of machinery
- No. 1.7.4. Operating instructions

Furthermore, we declare compliance with the following directives and standards including the modifications applicable at the time this declaration is made:

- Directive 2006/42/EC (machinery)
  - EN ISO 13857:2019 Safety of machinery - Safety distances to prevent hazard zones being reached by upper and lower limbs
  - EN 60204-1:2018 Safety of machinery - Electrical equipment of machines - Part 1: General requirements
- Directive 2011/65/EU (RoHS)
  - EN IEC 63000:2018 Technical documentation for the assessment of electrical and electronic devices with respect to the restriction of hazardous substances

We also declare that the special technical documentation for this partially completed machine has been created in accordance with Annex VII, Part B, and commit ourselves to disclose this to the market surveillance authorities upon request. The commissioning of these partially completed machines is prohibited until the partially completed machine(s) has/have been installed in a machine that meets the requirements of the EC Machinery Directive and for which an EU Declaration of Conformity according to Annex II, Part A exists.

Ortenburg, Germany
July 1, 2021

Dipl.-Ing.(FH) Eduard Huber, MBA
Quality Manager

Declaration of incorporation

Declaration of Incorporation of Partly Completed Machinery according to The Supply of Machinery (Safety) Regulations 2008, No. 1597 Annex II B

The manufacturer and person authorised to compile the relevant technical documentation

MICRO-EPSILON MESSTECHNIK GmbH & Co. KG
Königbacher Straße 15, 94496 Ortenburg / Germany

hereby declare that the machine designated below complies with the essential health and safety requirements of the Supply of Machinery (Safety) Regulations 2008, No. 1597, including modifications to it applicable at the time of this declaration, based on its design and construction and in the version put on the market by us – to the extent that the scope of supply allows.

Machine design: Draw-wire sensor (mechanics and models with potentiometer output)
Type designation: WDS-xxx, WPS-xxx

The following essential health and safety requirements according Annex II of o.g. regulation are applied and fulfilled:

- Nr. 1.1.2 “Principles of safety integration”
- Nr. 1.7.3 “Marking of machinery”
- Nr. 1.7.4 “Instruction”

Furthermore, we declare compliance with the following directives and standards including the modifications applicable at the time this declaration is made:

- SI 2008 No. 1597: The Supply of Machinery (Safety) Regulations 2008
  - EN ISO 13857:2019 Safety of machinery - Safety distances to prevent hazard zones being reached by upper and lower limbs
- SI 2012 No. 3032: The Restriction of the Use of Certain Hazardous Substances in Electrical and Electronic Equipment Regulations 2012
  - EN IEC 63000:2018 Technical documentation for the assessment of electrical and electronic products with respect to the restriction of hazardous substances

We also declare that the special technical documentation for this partially completed machine has been created in accordance with Annex VII, Part B, and commit ourselves to disclose this to the market surveillance authorities upon request.

The partly completed machinery must not be put into service until the final machinery into which it is to be incorporated has been declared in conformity with the provisions of the Directive, where appropriate.

Ortenburg, Germany
June 21, 2023

Dipl.-Ing.(FH) Eduard Huber, MBA
Quality Manager

Notes on Product Marking

Draw-wire displacement sensors with potentiometer output are devices (components) which cannot be operated autonomously and do not carry a CE / UKCA marking. For WPS/WDS draw-wire displacement sensors with potentiometer output, the Directives 2006/42/EC and 2011/65/EU shall apply for CE, or SI 2008 No. 1597 and SI 2012 No. 3032 shall apply for UKCA. Therefore, an EU Declaration of Conformity is not issued. The Declaration of Incorporation shall apply.

You can find more information about the sensor in the operating instructions. They are available online at

https://www.micro-epsilon.com/download-file/man--wireSENSOR-MP-MPW-MPM--de-en.pdf

or with the QR code at right:

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