

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

<https://www.micro-epsilon.com/fileadmin/download/manuals/man--wireSENSOR-WPS--en.pdf>

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X9771099.05-A022093HDR

Wire Guide and Fastening

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

- the sensor may not be held by another person,
- the measuring wire may not be further extracted but,
- only to the specified measuring range,
- the surroundings of the sensor have to be protected,
- against snapping of the measuring wire.

➡ Fix the measuring wire to the target using a wire clip.

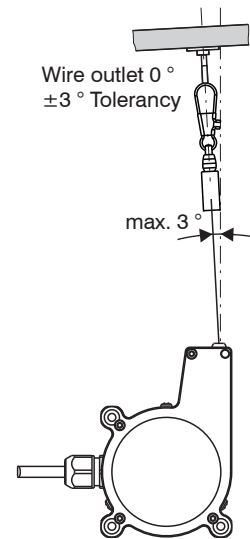
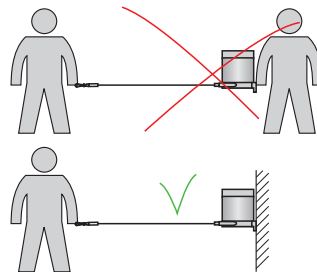
➡ Guide the measuring wire vertically out of the sensor housing.

Misalignment only permissible up to 3 degrees.

Dragging of the measuring wire on the inlet hole or other objects leads to damage and/or breakage of the measuring wire.

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

➡ Keep measuring wire in an area where it cannot be snagged or otherwise be violated.



Wire fastening and misalignment

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

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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



Assembly Instructions
wireSENSOR
WPS Series
WPS MK60



Warnings

- Do not open the sensor housing.
- Do not pull or loop the measuring wire around the unprotected body parts.
- Do not pull out the measuring wire beyond the measuring range listed.
- Do not let the measuring wire snap.

> Risk of injury

- 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

Notes on Product Marking

The product meets the requirements of CE and UKCA. All specifications described in the operating instructions must be observed.

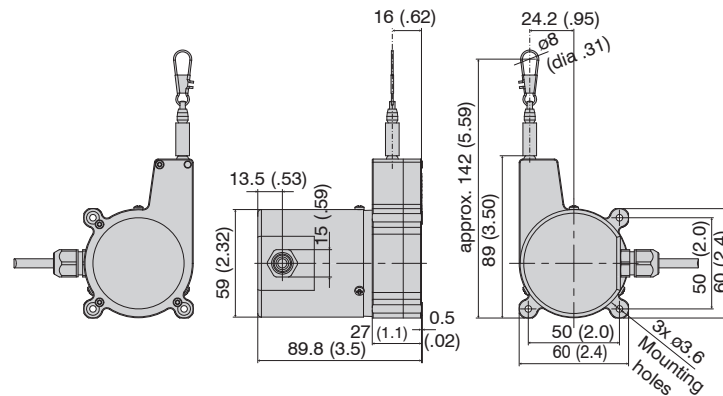
Proper Environment

- Protection class: IP65
- Temperature range:
 - Operation: -20 ... +80 °C (-4 ... +176 °F)
 - Storage: -20 ... +80 °C (-4 ... +176 °F)
- Humidity: 5 ... 95 % (non-condensing)
- Ambient pressure: Atmospheric pressure

Unpacking/Included in Delivery

- 1 Sensor
- 1 Assembly instructions

Dimensional Drawings



Dimensional drawing WPS-XXXX-MK60-CR with potentiometer, voltage, current, TTL01 and TTL02 and integrated cable, dimensions in mm (inches)

Sensor Mounting

- ➔ Mount the sensor using three screws M3.

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.

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

Output Specifications Analog

Electrical connection	Output		
-CR- Integrated cable	-P- Potentiometer	-U- Spannung	-I- Strom
White	Power supply	Power supply	Power supply
Brown	GND	GND	GND
Green	Signal	Signal	-
Yellow	GND	GND	-

Pin assignment WPS-1500-MK60-CR with potentiometer, voltage, current and integrated cable

All potentiometers must only be used in a voltage divider circuit. Using them as a variable resistor, destroys the element. Ensure that the maximum current through the viper is limited.

Pin Assignment Incremental Encoder

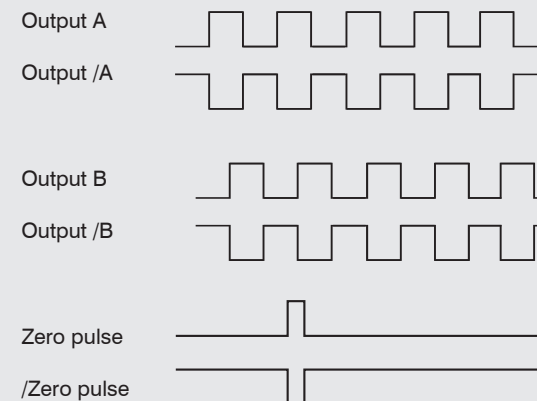
Pin assignment TTL01	
Color	Assignment
Brown	0 V
Gray	V ₊
White	A
Green	B
Yellow	0

Pin assignment TTL01

Pin assignment TTL02	
Color	Assignment
Red	V ₊
Black	0 V
Brown	A
Black	/A
Orange	B
Black	/B
Yellow	0
Black	n.c.

Pin assignment TTL02

Output Signals Incremental Encoder



Output TTL01	NPN (5 VDC ±5 %)
Level High	> 4,5 V
Level Low	< 1,0 V
Load High	≤ 3 mA
Outputs	A, B, 0

Output TTL02	NPN (5 VDC ±5 %)
Level High	> 4,5 V
Level Low	< 1,0 V
Load High	≤ 3 mA
Outputs	A, /A, B, /B, 0

Signal outputs TTL01, TTL02