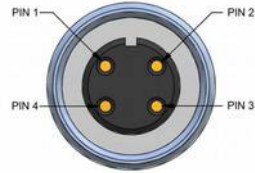




ACCESSORIES

Cable with mating connector M12, 4 pole, shielded

| | |
|---------------|--------------------------------|
| K4P2M-S-M12 | 2 m, straight connector, IP67 |
| K4P5M-S-M12 | 5 m, straight connector, IP67 |
| K4P10M-S-M12 | 10 m, straight connector, IP67 |
| K4P2M-SW-M12 | 2 m, angular connector, IP67 |
| K4P5M-SW-M12 | 5 m, angular connector, IP67 |
| K4P10M-SW-M12 | 10 m, angular connector, IP67 |



| PIN No. | Colour | PIN No. | Colour |
|---------|--------|---------|--------|
| PIN 1 | brown | PIN 3 | blue |
| PIN 2 | white | PIN 4 | black |

DECLARATION OF EC-CONFORMITY

Manufacturer WayCon Positionsmesstechnik GmbH
Mehlbeerenstrasse 4
82024 Taufkirchen / Germany

This is to certify that the products

Classification rotary angle transducer
Product series WP, WP-M

fulfill the current request of the following EC-directives:
EMC-directive 2004/108/EU (until April 19th, 2016)
2014/30/EU (from April 20th, 2016)
applied harmonized standards:
EN 61326-1: 2013

The declaration of conformity loses its validity if the product is misused or modified without proper authorisation.

Taufkirchen, 24.02.2016


Andreas Träger
CEO

INSTALLATION GUIDE

Rotary angle transducers, series WP, WP-M

For further information please see the data sheet at www.waycon.biz/products/encoders

FIRST STEPS

WayCon Positionsmesstechnik GmbH would like to thank you for the trust you have placed in us and our products. This manual will make you familiar with the installation and operation of our rotary angle transducers. Please read this manual carefully before initial operation!

Unpacking and checking:

Carefully lift the device out of the box by grabbing the housing. After unpacking the device, check it for any visible damage as a result of rough handling during the shipment. Check the delivery for completeness. If necessary consult the transportation company, or contact WayCon directly for further assistance.

MOUNTING OF THE SENSOR

Rotary transducers with 3, 5, 10 Turn Potentiometers

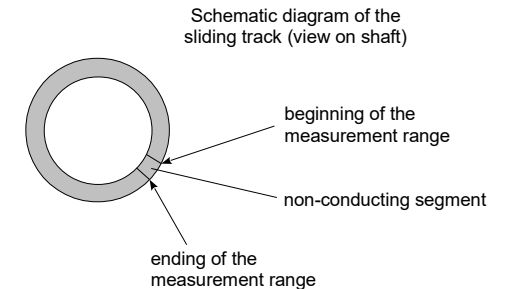
This type of Potentiometer has a start and a end stop (no continuous rotation). With view on shaft the signal increases when the shaft is turned counter clock wise. Before installing the rotary transducer it is very important to manually turn the shaft clockwise (view on the shaft) until the start stop is reached and then a few degrees back again. After this procedure the sensor can be installed (without turning the shaft). This is the only way to make sure that the beginning of the measurement range corresponds with the start of the sliding track and an over-winding at the end of the measurement range is avoided.

Rotary transducers with 1 Turn Potentiometer (WP-M-90/180/320, WP-90/180/320)

This type of Potentiometer is used to measure angles smaller than 360°. The sliding track has a circular shape. A certain segment of the sliding track is non-conducting.

This way the beginning and the end of the measurement range is defined. With view on shaft the signal increases when the shaft is turned counter clock wise. The output signal drops to zero as soon as the cursor reaches the non-conducting part of the sliding track. If turned further, the signal starts to increase again as soon as the beginning of the measurement range is reached. A continuous rotation is possible.

Generally spoken the 1 Turn Potentiometer is made for use within the measurement range. If the sensor is used in a continuous rotation mode the cursor gets dragged over the non-conducting segment of the sliding track which leads to an increased wear.

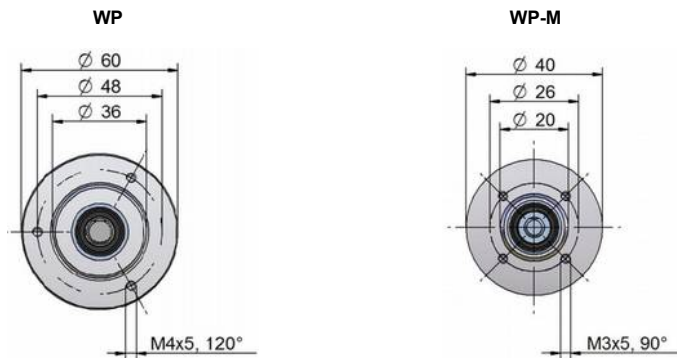


INSTALLATION GUIDE

Rotary angle transducers, series WP, WP-M

For further information please see the data sheet at www.waycon.biz/products/encoders

MOUNTING OF THE SENSOR



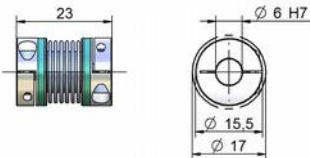
COUPLINGS

Rotary transducers should never be connected to shafts or drives in an inflexible, stiff way. For this reason always use a coupling between the rotary transducer and the shaft.

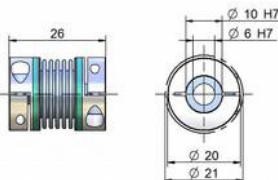
Bellows couplings are used for the free of backlash connection between an encoder and a shaft. The couplings are free of wear and compensate lateral, axial and angular shaft misalignment. The mounting on the shaft is done by clamping hubs.

Never use force to align the rotary angle transducer!

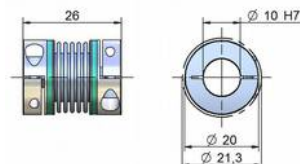
MBK-15.5-23-06-06



MBK-20-26-06-10



MBK-20-26-10-10



ELECTRICAL CONNECTION

General information

- Please use shielded cables for the connection of the sensor (see accessories).
- Strong electromagnetic sources, like frequency converters, solenoid valves, or power lines close to the sensor should be avoided, because they can influence the measured signal.
- It is important to take care that the sensor is supplied with a constant voltage. We recommend to use a high-quality power unit.

Cable output

| | | | |
|-----------------|------------------------------------|--------|--------|
| Cable type | TPE, flexible | | |
| Cable direction | axial | | |
| Length | standard: 2 m, (others on request) | | |
| Diameter | Ø 4.5 mm | | |
| Wire | 0.25 mm ² | | |
| Temperature | fixed installation -30...+85 °C | | |
| | flexible installation -20...+85 °C | | |
| Cable colour | 10 V | 420 mA | 1 kOhm |
| brown | V + | V + | V + |
| white | Signal | n. c. | Cursor |
| blue | GND | Signal | GND |
| black | GND Signal | n. c. | n. c. |

Connector output M12, 4 pole

| | | | |
|-----|------------|--------|--------|
| Pin | 10 V | 420 mA | 1 kOhm |
| 1 | V + | V + | V + |
| 2 | Signal | n. c. | Cursor |
| 3 | GND | Signal | GND |
| 4 | GND Signal | n. c. | n. c. |

