

INSTALLATION GUIDE

Encoder series WP and WPI

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

INTRODUCTION

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 encoders. 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 WP

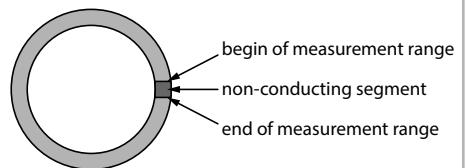
Rotary transducers with 3, 5, 10 Turn Potentiometers

This type of Potentiometer has a start and an 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)

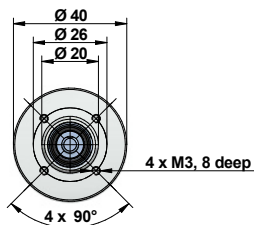
This type of Potentiometer is used to measure angles smaller than 360°. The sliding track has a circular shape. A certain segment of the sliding track is non-conducting.

Schematic diagram of the sliding track (view on shaft)

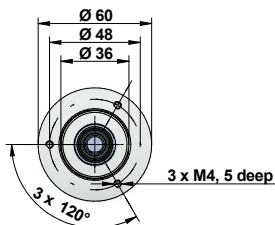


MOUNTING OF THE SENSOR WP & WPI

WP-M/WPI-M



WP/WPI



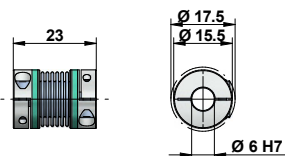
COUPLINGS

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.

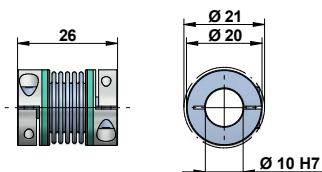
Bellows couplings are used for the free of backlash connection between an encoder and a shaft. The couplings are free of wear and compensate lateral, axial and angular shaft misalignment. The mounting on the shaft is done by clamping hubs.

Never use force to align the rotary angle transducer!

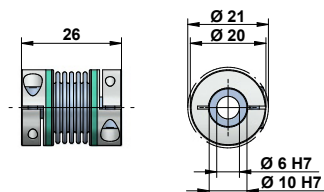
MBK-15.5-23-06-06



MBK-20-26-06-10



MBK-20-26-10-10



ELECTRICAL CONNECTION

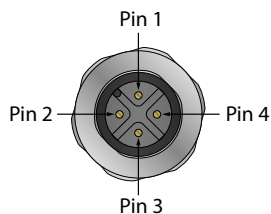
General information

- 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.

Connector output WP/WPI-M

Pin	Potentiometer output	Voltage output	Current output	Connection cable K4P
1	+V	+V	+V	BN
2	Cursor	Signal	n. c.	WH
3	GND	GND	Signal	BU
4	n. c.	GND _{Signal}	n. c.	BK

Connector output, M12, male



ELECTRICAL CONNECTION

Cable output WP/WP-M

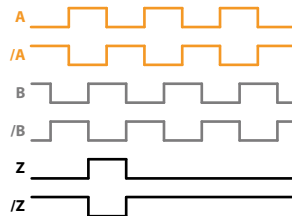
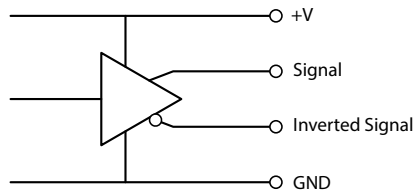
Cable colour	Potentiometer output	Voltage output	Current output
BN	+V	+V	+V
WH	Cursor	Signal	n. c.
BU	GND	GND	Signal
BK	n. c.	GND _{Signal}	n. c.

Cable specifications

Cable type	TPE, flexible
Diameter	ø4.5 mm
Wire	0.25 mm ²
Temperature	fixed installation: -30...+85 °C, flexible installation: -20...+85 °C

Cable output WPI/WPI-M

Cable colour	Function
RD	+V
BK	GND
WH	A
WH/BK	/A
GN	B
GN/BK	/B
YE	Z
YE/BK	/Z
Shield	Shield





DECLARATION OF EU-CONFORMITY

Manufacturer WayCon Positionsmesstechnik GmbH
Mehlbeerenstrasse 4
82024 Taufkirchen / Germany

This is to certify that the products

Classification encoders
Product series WP, WP-M, WPI, WPI-M
fulfil the current request of the following EU-directives
EMC-directive 2014/30/EU

applied harmonized standards:

WP, WP-M: EN 61326-1:2013

WPI, WPI-M: EN 55011 class B:2009 + A1:2010, EN61000-6-3:2007 + A1:2011;
EN 61000-6-2:2005/AC:2005, EN 61326-1:2013; EN 50581:2012

This declaration of conformity loses its validity if the product is misused or modified with out proper authorisation.

Taufkirchen, 24.03.2022

A handwritten signature in blue ink, appearing to read 'Andreas Täger'.

Andreas Täger
CEO