



## ACCESSORIES

### Connection cables and connectors

#### Cable with connector M12, 8 poles, shielded

K8P2M-S-M12	2 m, connector straight
K8P5M-S-M12	5 m, connector straight
K8P10M-S-M12	10 m, connector straight
K8P2M-SW-M12	2 m, connector angular
K8P5M-SW-M12	5 m, connector angular
K8P10M-SW-M12	10 m, connector angular

#### Cable with connector M23, 8 poles, shielded

K8P2M-S-M23	2 m, connector straight
K8P5M-S-M23	5 m, connector straight
K8P10M-S-M23	10 m, connector straight

#### Mating connector M12, 8 poles, shielded

D8-G-M12-S	mating connector straight
D8-W-M12-S	mating connector angular
	protection class: IP67
	temperature: -25...+90 °C
	cable passage: $\varnothing$ 4...8 mm
	wire diameter: 0.14...0.34 mm <sup>2</sup>

#### Mating connector M23, 12 poles

CON012-S	straight, metal housing
	wire diameter: AWG 16...26 mm <sup>2</sup>
	cable diameter: $\varnothing$ 5.5...10 mm

## DECLARATION OF EC-CONFORMITY

WayCon Positionsmesstechnik GmbH  
Mehlbeerenstrasse 4  
82024 Taufkirchen / Germany

This is to certify that the products

Classification incremental encoder  
Product series A36, A58

fulfill the current request of the following EC-directives:  
EMC-directive 2004/108/EC  
applied harmonized standards:  
EN 55011 class B: 2009 + A1: 2010,  
EN 61000-6-3:2007 + A1:2011, EN 61000-6-2:2005

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

Taufkirchen, 13.03.2013

  
Andreas Täger  
CEO

# INSTALLATION GUIDE

## Incremental encoder, series A36, A58

For further information please see the data sheet at [www.waycon.biz/products/encoders](http://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 incremental 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.

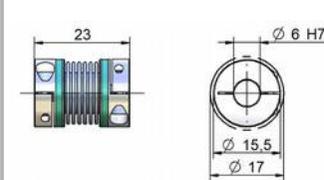
## MOUNTING OF THE SENSOR

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.

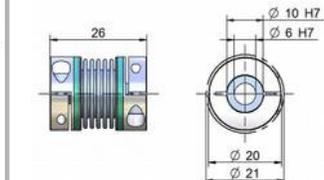
Bellows couplings are used for the free of backlash connection between an encoder and a shaft. The couplings are free of wear and compensate lateral, axial and angular shaft misalignment. The mounting on the shaft is done by clamping hubs.

Never use force to align the rotary angle transducer!

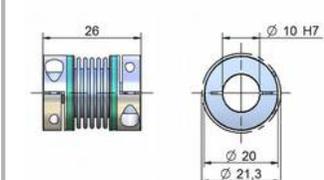
### MBK-15.5-23-06-06



### MBK-20-26-06-10



### MBK-20-26-10-10



### Mounting by clamping excentrics

The A36 and A58 encoders can be mounted with excentrics. The BX36 and BX58 kits include 3 excentrics and 3 screws.

#### Required drill holes:

BX36: M2.5-screw thread, depth 5 mm,  
 $\varnothing$  screw-hole circle 42 mm

BX58: M3-screw thread, depth 6 mm,  
 $\varnothing$  screw-hole circle 65 mm



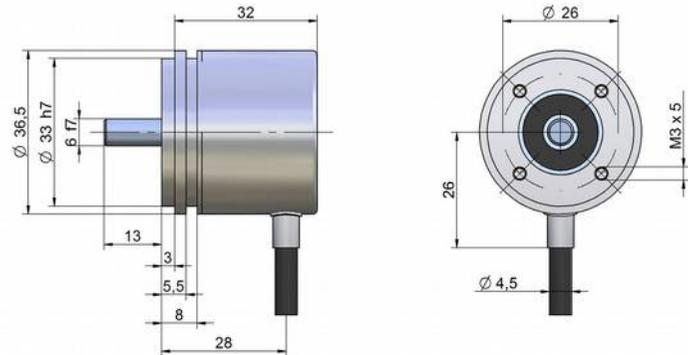
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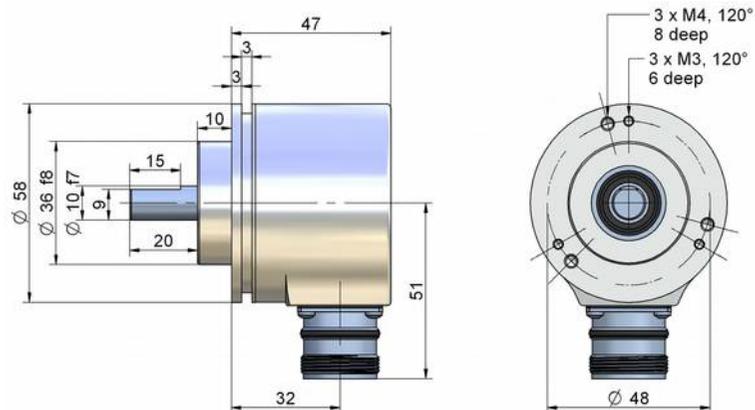
### TECHNICAL DRAWING

#### A36: solid shaft, radial cable output



Please see the data sheet for the technical drawings of other A36 versions.

#### A58: solid shaft, radial connector output, M23, 12 poles



Please see the data sheet for the technical drawings of other A58 versions.



### ELECTRICAL CONNECTION

#### General information

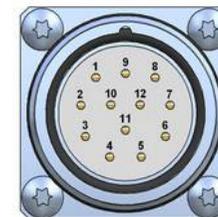
- Please use shielded cables for the connection of the sensor (see accessories).
- Strong electromagnetic sources, like frequency converters, solenoid valves, or power lines close to the sensor should be avoided, because they can influence the measured signal.
- It is important to take care that the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

#### Output Type

Signal	0 V	+V	0 V <sub>sens</sub> *	+V <sub>sens</sub> *	A	A <sub>not</sub>	B	B <sub>not</sub>	Z	Z <sub>not</sub>	screen
Connector M23, 12 poles	10	12	11	2	5	6	8	1	3	4	housing
Connector M12, 8 poles	1	2	-	-	3	4	5	6	7	8	housing
Cable output	white	brown	black	violet	green	yellow	grey	pink	blue	red	housing

\* For Linedriver L only. For long cable lengths it may occur that the operating voltage at the sensor does not suffice due to the output resistance. With the sensor lines 0 V<sub>sens</sub> and +V<sub>sens</sub> the operating voltage can be checked and, if necessary, be readjusted at the input connection.

#### Connector output, M23 12 poles (only A58)



#### Connector output, M12 8 poles



#### Cable output

Cable type	PVC, flexible
Diameter	$\varnothing 4.5$ mm
Wires	8 (push-pull) and 10 (linedriver) x 0.14 mm <sup>2</sup>
Temperature	fixed installation -30...+85 °C flexible installation -20...+85 °C