INSTALLATION GUIDE

Incremental Encoder Series B36 and B58

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 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

- It is not permissible to dismantle the encoder entirely or in part or to modify it.
- Do not alter the shaft (by grinding, sawing, drilling, etc.), otherwise the accuracy of the encoder and the dependability of bearing and gasket will suffer.
- Never align the instrument with a hammer.
- It is imperative to avoid impact loads.
- Radial and axial load capacity as stated in the data sheet have to be observed under any circumstances.
- Do not connect encoder and drive rigidly to one another at shafts and flanges. Always use a coupling (between drive shaft and encoder shaft, or between hollow-shaft encoder flange and drive flange).

ELECTRICAL SAFETY

- To prevent short-circuits, neatly insulate the ends of all strands which are not required
- Our recommendations regarding cable lengths:
  - in case of asymmetrical transmission, i.e. inverted signals are not used, cable length max. 10 m.
  - in case of symmetrical transmission (e.g. to RS 422), cable length max. 50 m (cable with twisted pairs of wires).
- Plug in or pull out mating connector at the encoder only when encoder is deenergized.
- Make certain that the operating voltage is correct and the max. permissible output current is not exceeded (see data sheet).
- The operating voltage for encoder and succeeding device must be turned on and off together.

ELECTRICAL SAFETY

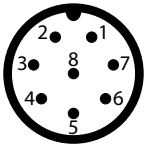
In order to obtain CE-Conformity, EMC installation conformity should be observed.

- Shielded cables should be used or control lines. In case of symmetrical transmission (e.g. RS422) a cable with twisted pairs of wire has to be used. The cable shield should it possible be connected fully enclosed (360º) by shielded connectors or cable bushings. This has to be done at the encoder and transmision end.
- The protection earth should be put with low impedance on both face and back of the encoder and the transmission end.
- In case of earth loop problems, the protection earth of the encoder side has to be removed. On this occasion, the encoder should be placed electrically isolated opposite the actuation.
- The encoder lines should run separately to cables with high noise levels.
- Consumer with high disturbance level, e.g. frequency converters, solenoid valves, contactors etc. should not be connected to the same voltage supply. Otherwise, a suitable voltage filtering has to be installed.

ELECTRICAL CONNECTION

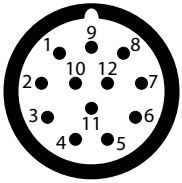
B36, B58: Connector output M12, male, 8 pins

Signal	GND	+V	A	/A	B	/B	Z	/Z
Pin	1	2	3	4	5	6	7	8



B58: Connector output M23, male, 12 pins

Signal	GND	+V	A	/A	B	/B	Z	/Z	GND_{sens}	$+V_{sens}$	n. c.
Pin	10	12	5	6	8	1	3	4	11	2	7, 9



ELECTRICAL CONNECTION

B36: Cable output, 8 poles

Signal	GND	+V	A	/A	B	/B	Z	/Z
Pin	WH	BN	GN	YE	GY	PK	BU	RD

B58: Cable output, 10 poles

Signal	GND	+V	A	/A	B	/B	Z	/Z	GND_{sens}	$+V_{sens}$
Pin	WH	BN	GN	YE	GY	PK	BU	RD	GY-PK	RD-BU

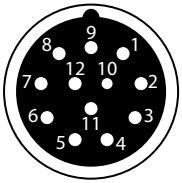
ACCESSORIES CABLES

Cable with mating connector M12 (female), 8 poles	
K8PXM-S-M12	X m, straight connector, IP67, shielded
K8PXM-SW-M12	X m, angular connector, IP67, shielded



Pin	1	2	3	4	5	6	7	8
Cable colour	WH	BN	GN	YE	GY	PK	BU	RD

Cable with mating connector M23 (female), 12 poles	
K12PXM-S-M23	X m, straight connector, IP67, shielded
K12PXM-SW-M23	X m, angular connector, IP67, shielded



Pin	1	2	3	4	5	6	7	8	9	10	11	12
Cable colour	PK	RD-BU	BU	RD	GN	YE	-	GY	-	WH	GY-PK	BN



DECLARATION OF EU-CONFORMITY

WayCon Positionsmesstechnik GmbH
Mehlbeerenstrasse 4
82024 Taufkirchen / Deutschland

This is to certify that the products

Classification	incremental encoders
Product series	B36, B58

fulfil the current request of the following EU-directives

EMC-directive 2014/30/EU
2011/65/EU

applied harmonized standards:
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, 22.03.2019

Andreas Täger
CEO