

EN Assembly Instructions

GBP5W
GXP5W
GXU5W
Absolute Encoder – CANopen®

9-16



Danger
Warnings of possible danger.



General instructions
Information on appropriate product handling.



General remarks



It is imperative to read the manual carefully prior to starting the device.

Appropriate use

- The encoder is a precision measuring device. It is explicitly designed for registration of angular positions and revolutions as well as evaluation and supply of measuring values as electric output signals for the subsequently connected device. The encoder must not be used for any other purpose.

Start up

- Installation and assembly of the encoder only by electrically skilled and qualified personnel.
- Consider also the operation manual of the machine manufacturer.



Safety instructions

- All electrical connections are to be revised prior to starting the system.
- Incorrect assembly and electrical connections or any other inappropriate work at encoder and system may lead to malfunction or failure of the encoder.
- Any risk of personal injury, damage of the system or company equipment due to failure or malfunction of the encoder has to be eliminated by corresponding safety measures.
- Do not operate encoder beyond the limit values stated in the data sheet.



Any disregard may lead to malfunctions, material damage and personal injury.

Disposal

Encoder components are to be disposed of according to the regulations prevailing in the respective country.



Transport and storing

- In original packing only.
- Do not drop or expose encoder to major shocks.



Assembly

- Avoid punches or shocks on case and shaft.
- Avoid case distortion.
- Do not use any rigid links between encoder shaft and drive shaft.
- Do not open or modify encoder in any mechanical way.



Shaft, bearing, glass disc or electronic components might be damaged and a secure operation is no longer guaranteed.

Mechanical assembly

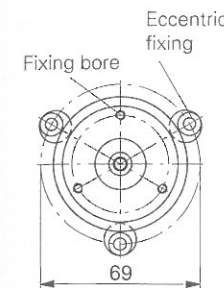
- Mount encoder using three screws using the three fixing bores of the flange. Consider the depth and diameter of the thread.
- Alternative mounting in any angular position is possible by means of three eccentric fixings (accessories).
- Use appropriate coupling to link drive shaft and encoder shaft. For appropriate links please refer to accessories.



The ends of the shafts must not touch each other. Any displacements due to temperature or mechanical tolerances have to be equalized by the coupling. Mind the maximum permitted axial or radial shaft load. Tighten fixing screws firmly.

Electrical installation

- Do not modify encoder in any electrical way and carry out any wiring work under power supply.
- Any electrical connection and plugging-on whilst under power supply is not permitted.
- A separate encoder supply has to be provided with consumers with high interference emission.
- Encoder case and supply cable have to be completely screened.



- Installation of the whole system has to be according to EMC standards. Installation environment as well as wiring have an impact on the encoder's EMC. Encoder and supplying lines are to be in separated locations or remote from lines with high interference emission (frequency transformers, protections, etc.).
- Ground (PE) encoder by using screened cables. The braided shield has to be connected to cable gland or plug. Grounding (PE) on both sides is recommended. Ground the case by the mechanical assembly, if latter is electrically isolated a second connection has to be provided. Ground cable screen by the subsequently connected devices. In case of ground loop problems at least grounding on one side is imperative.



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Electrical connection

Any outputs not used must not be connected. Unused cable cores have to be isolated. Max. bending radius of cables 90 mm. After the reset process the zero input should be grounded (GND) externally for better protection against interferences.

Assignment – connector M12 / M23

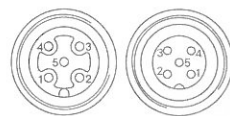
Whilst not connected, the connector is always to be sealed by the plastic cover provided by the manufacturer upon delivery. Appropriate mating connectors available as spare part or with different cable length, please refer to accessories. In case of customer-specific length use only screened cable and connectors corresponding to EMC standards. Consider the wiring instructions of the respective supplier.

- Press mating connector softly onto the connector.
- Turn mating connector carefully until the code-mark is interlocking the corresponding space provided by the connector.
- Insert bushing completely and tighten the nut as far as possible.



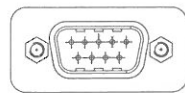
An optimized connection between encoder case and the braided shield of the connection cable is only achieved by the braided shield being placed generously onto the connector and the nut being secured firmly

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Terminal assignment Connector M12

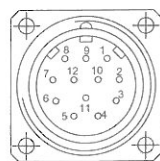
Connector	Core colour	Assignment
Pin 1	brown	GNDB
Pin 2	white	UB
Pin 3	blue	CAN_GND
Pin 4	black	CAN_H
Pin 5	grey	CAN_L



Connector D-SUB

Connector	Assignment
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Pin 1	–
Pin 2	CAN_L
Pin 3	CAN_GND
Pin 4	–
Pin 5	–
Pin 6	GNDB
Pin 7	CAN_H
Pin 8	–
Pin 9	UB



Connector M23

Connector	Core colour	Assignment
Pin 1	brown/green	UB
Pin 2	white/green	GNDB
Pin 3	pink	CAN_L
Pin 4	grey	CAN_H
Pin 5	white	CAN_GND
Pin 6-12	–	–

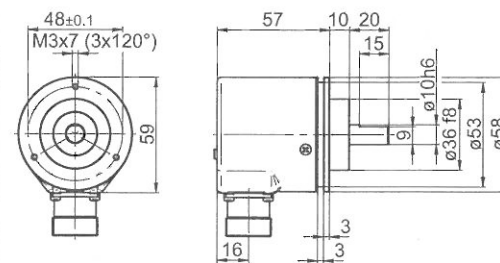
Please use cores twisted in pairs (for example CAN_H/ CAN_L) for extension cables of more than 10 m length.

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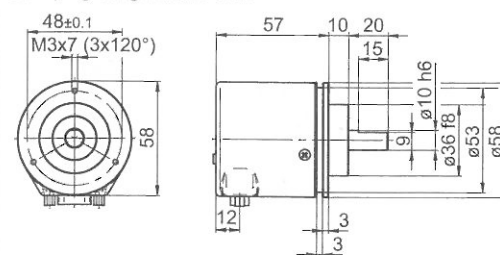
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Dimensions

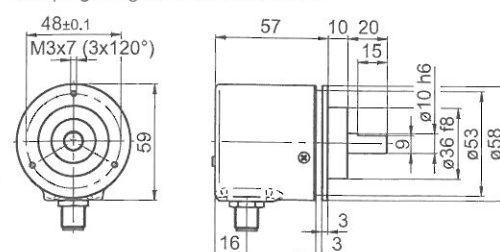
Clamping flange and connector M23



Clamping flange and D-SUB



Clamping flange and connector M12

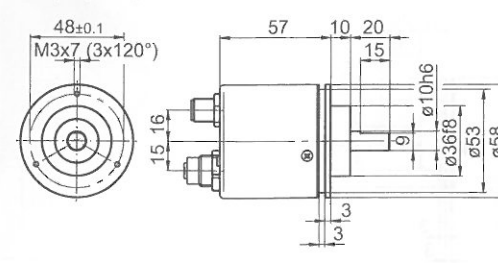


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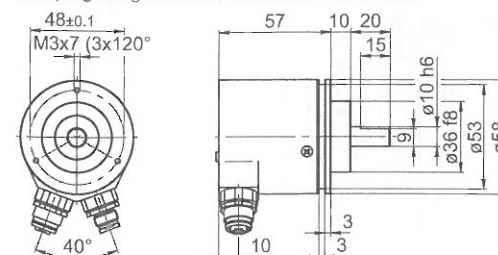
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Dimensions

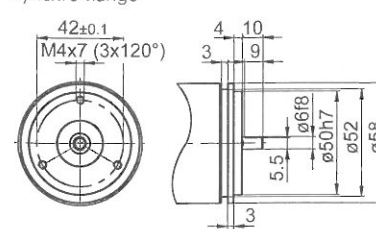
Clamping flange and 2 x connector M12, axial



Clamping flange and 2 x connector M12, radial



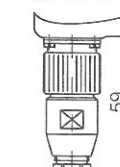
Synchro flange



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Connector dimensions



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