

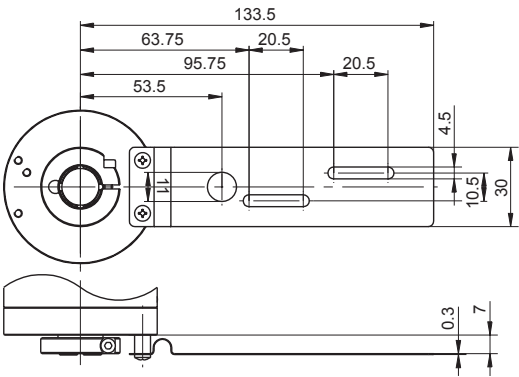
GB Assembly Instructions

G0P5H, GBP5H
Absolute encoder – CANopen

9-16

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Spring coupling



All movable adjusting elements need tolerance in both axial and radial direction in order to equalize shifts by temperature and of mechanical nature. Tighten both fixing and clamping ring screws firmly.

Starting torque

Spring coupling mounting max. 1.2 Nm
Clamping ring mounting max. 1.2 Nm

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Danger
Warnings of possible danger.



General instructions
Information on appropriate product handling.



General remarks

Additional information

The assembly instruction is supplementary to further existing documentation (e.g. catalog, data sheet, manual).



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.

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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.

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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

- Open clamping ring completely before mounting the encoder.
- Avoid punches or shocks on case and shaft.
- Avoid case distortion.
- Do not open or modify encoder in any mechanical way.
- The spring arm of the spring coupling has to be free movable.



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

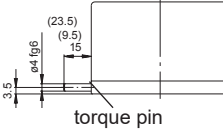
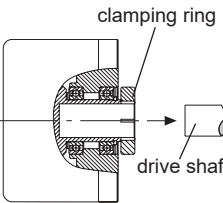
Hollow shaft mounting

Mounting with clamping ring

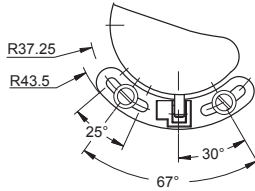
Plug encoder completely onto drive shaft (ISO-fit f7) and tighten clamping ring firmly (max. 1.2 Nm). The drive shaft must penetrate the encoder's hollow shaft to a depth of at least 35 mm.

Mechanical assembly

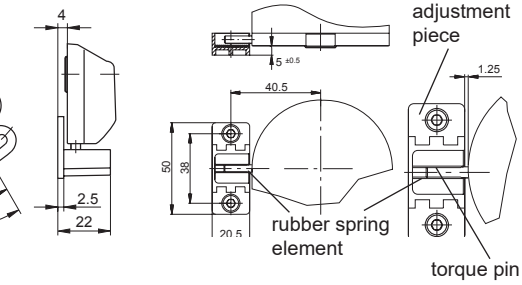
Slide encoder onto the drive shaft and insert torque pin into the adjusting element provided by customer or insert pin into the mounted adjusting part (with rubber spring element) provided by customer.



adjustment piece with torque pin 9.5 mm



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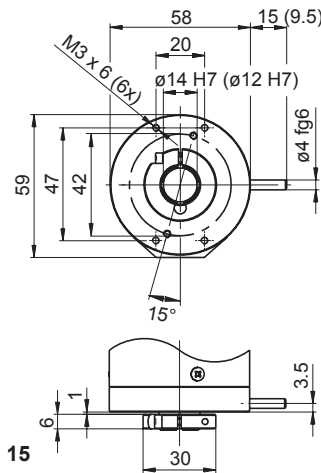


- Press mating connector softly onto the connector.
- Turn mating connector carefully until the code-mark is interlocking the corresponding space provided by the connector.
- Insert bushing completely and tighten the nut as far as possible.

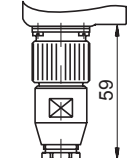
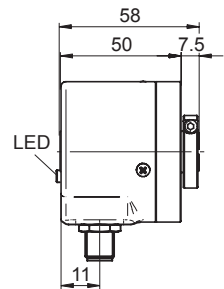
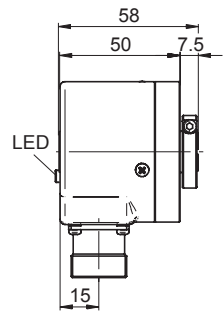


An optimized connection between encoder case and the braided shield of the connection cable is only achieved by the braided shield being placed generously onto the connector and the nut being secured firmly.

Dimensions



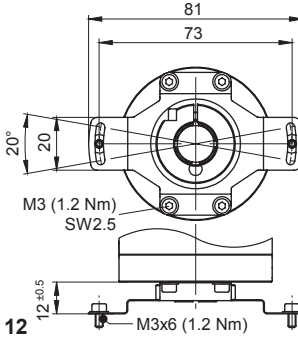
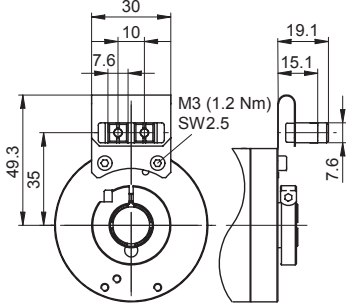
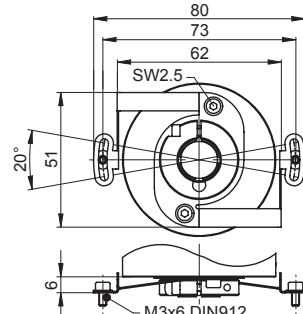
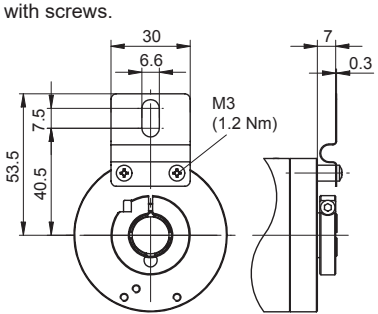
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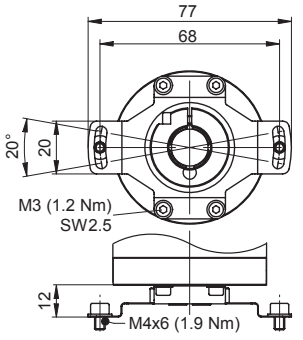
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Spring coupling

Fasten spring coupling at the fixing holes provided on housing by means of screws. Slide encoder onto the drive shaft and fasten spring coupling at the surface provided with screws.



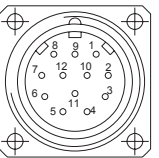
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Terminal assignment

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 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.