

Absolute encoders - CANopen

Shaft with clamping or synchro flange
Single turn 12...19 bit,
Multi turn 4...32bit



FNC AC 58B & 58S & 58E & 58H Series



Features

- Encoder single - or multiturn / CANopen
- Magnetic Sensing
- Optical Single turn Resolution: 12...19 bit (optional)
- Magnetic Single turn Resolution: 9...13bit
- Multi turn 4...32bit
- Clamping flange or synchro flange
- Extreme resistance to shock and vibration
- Permanent check of code continuity
- Resolution end zero point programmable

Technical data - electrical ratings

Voltage supply	
Protection:	Output short circuit protection. Reverse polarity protection (except 5V version)
Consumption w/o load	≤100 mA (24 VDC)
Resolution (steps/turn)	CANopen CiA DSP 301 V4.01, DSP 305 V1.0, DSP 406 V3.1 Magnetic: 14 bit Optic: 21 bit
Absolute accuracy	Magnetic: ±0,1° Optic: ±0,01°
Sensing method	Magnetic
	Binary
	CW default, programmable
Programmable	Operating modes Total resolution Scaling Rotation speed monitoring
Interference immunity	DIN EN 61000-6-2
Emitted interference	DIN EN 61000-6-4

Accessories

Connectors and cables
CRM2312R M23 12 poles female connector or see page 206

Mounting coupling
PF481010 metal coupling or see page 204

Mounting accessories
YY TEO spring or see page 202-203

Technical data - mechanical design

Dimensions (flange)	ø58 mm
Shaft loading	≤40 N axial ≤60 N radial
Protection	DIN EN 60529
Operating speed	≤
Starting torque	≤0.025 Nm (IP 65)
Materials	Housing, Flange : Aluminium Shaft : Stainless steel
Shaft diameter:	6, 8, 10, 12 mm (other diameters on request)
Bearings lifetime:	⁹ at 100% of full rated shaft load (minimum)
Operating temperature	-40...+110 °C -40 °C up to +120 °C (Storage)
	eight approx.

Terminal assignment

Connector M12	
Pin	Description
Pin 1	Signals
Pin 2	Supply voltage
Pin 3	
Pin 4	Bus (dominant High)
Pin 5	Bus (dominant Low)

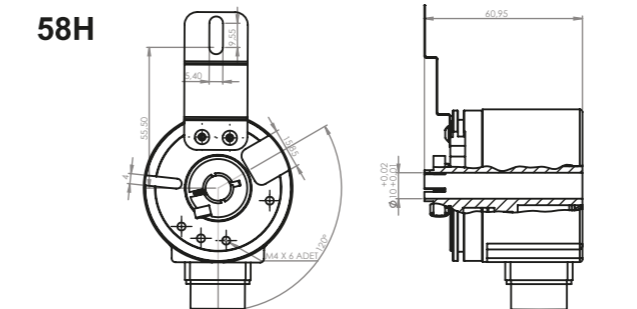
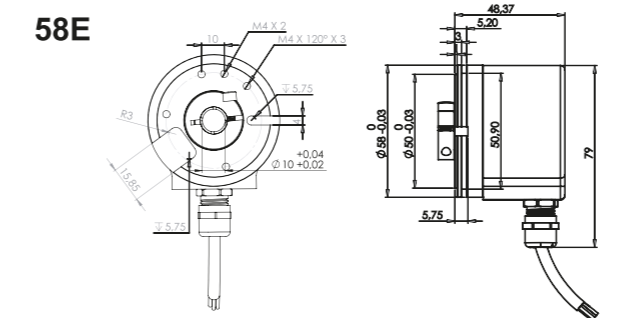
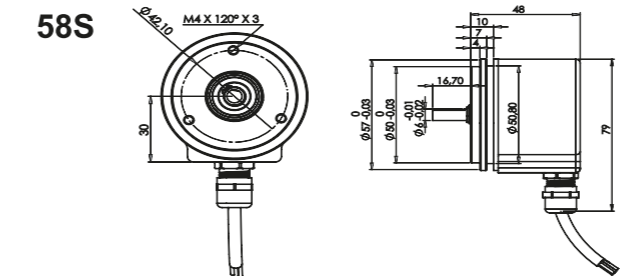
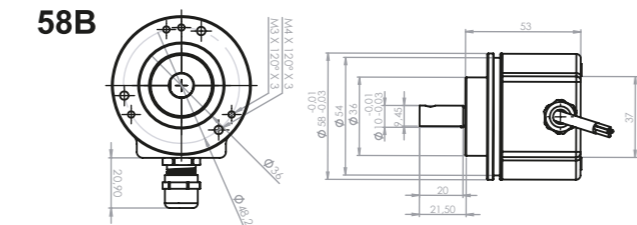


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Mechanical Dimensions
Cable/Connector Wiring, Part Number

FNC AC 58B & 58S & 58E & 58H Series

Mechanical Dimensions



CANopen® features

Bus protocol	CANopen
Device profile	CANopen - CiA DS 406
Operating modes	- Event-triggered / Time-triggered - Sync (cyclic)
Preset	Parameter for setting the encoder to a requested position value assigned to a defined shaft position of the system. The offset of encoder zero point and mechanical zero point is stored in the encoder.
Rotating direction	The rotating direction in which there have to be ascending or descending position values can be defined. Default setting: Ascending position values when looking at the flange and rotating the shaft clockwise.
Scaling	Parameter defining the steps per turn as well as the total resolution.
Diagnosis	The encoder supports the following error warnings: - Position error - Lithium battery voltage (multiturn)
Node Monitoring	Heartbeat
Default	125 kbit/s, Node ID 1

Cable

Core colour	Signals	Description
white	0 V	Supply voltage
brown	+Vs	Supply voltage
green	CAN_H	Bus (dominant High)
yellow	CAN_L	Bus (dominant Low)

Encoder Part Number

