

MAGNETIC CANopen SINGLE-TURN ENCODERS, AXM5S – STAINLESS STEEL 316 - IP69K

- Adapted to food and beverage – pharmaceutical – river – offshore applications,
- Stainless steel encoder (316) with hygienic design,
- Flanges and shaft adapted to the market needs,
- Robustness and excellent resistance to shocks / vibrations,
- Double ball bearings with safety lock system,
- High protection level IP69K,
- Universal electronic circuits from 5 to 30Vdc,
- CANopen interface,
- High performances in temperature -40°C to $+85^{\circ}\text{C}$,
- Magnetic technology, Hall effect contactless,
- Available resolution up to 12 bits per revolution,
- Adapted axial cable gland output.

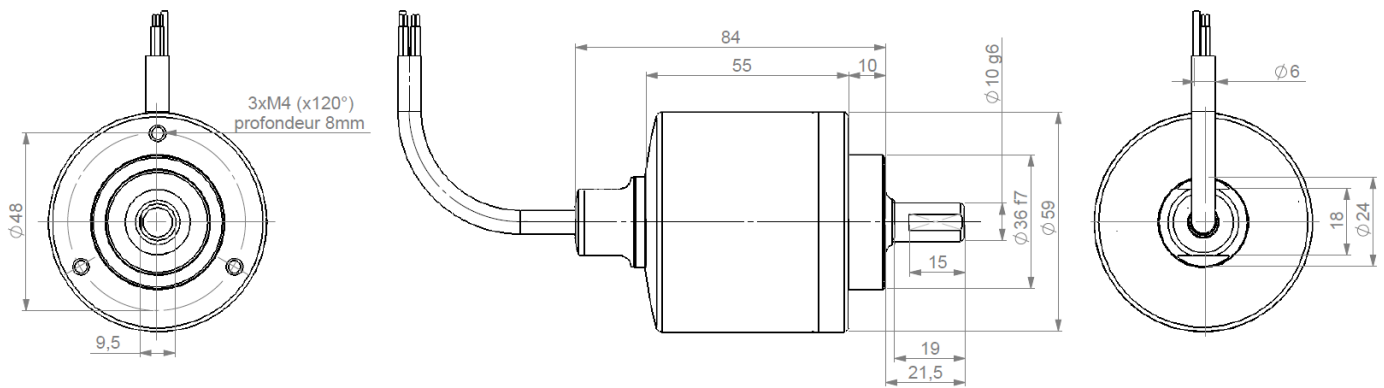


CANopen

DS 301 V4.02

DS 406 V3.1

AXM5S10 DIMENSIONS



MECHANICAL CHARACTERISTICS

Material	Shaft: Stainless steel 316	Shaft inertia	$\leq 1,2 \cdot 10^{-6} \text{ kg.m}^2$
	Cover: Stainless steel 316	Torque	$\leq 90 \cdot 10^{-3} \text{ N.m}$
	Body: Stainless steel 316	Shocks (EN60068-2-27)	$\leq 2000 \text{ m.s}^{-2}$ (during 6 ms)
Bearings	Double ball bearings	Vibrations (EN60068-2-6)	$\leq 200 \text{ m.s}^{-2}$ (55 ... 2 000 Hz)
Maximal loads	Axial : 250 N	Encoder weight (approx.)	0,600 kg
	Radial : 500 N	Protection(EN 60529)	IP 69K
Theoretical mechanical lifetime	10 ⁹ turns ($F_{\text{axial}} / F_{\text{radial}}$) 50 N / 100 N : 12 250 N / 500 N : 0,5	EMC	EN 61000-6-4, EN 61000-6-2
Permissible max. speed	4 000 min ⁻¹	Isolation	500 Veff
Continuous max. speed	3 000 min ⁻¹	Operating temperature	- 40... + 85 °C (T° encoder)
		Storage temperature	- 40... + 85 °C

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ELECTRICAL DATA

Power supply	5-30Vdc	Repeatability	± 0.1 %
Consumption without load	< 40mA (at 24Vdc)	Introduction	< 1s
Resolution	4096 (2 ¹²)	Refresh rate	< 400µs
Accuracy	± 0.3 %		

PROGRAMMABLE PARAMETERS

Resolution: defines the resolution per revolution (0 à 4 096).

Transmission speed : programmable from 10kbaud (1 000m) to 1 Mbaud (25 m) ; value per default : 20 Kbaud.

Address : defines the software address of the encoder on the bus (1 à 127, Value per default : id = 1).

Direction : defines the direction of count of the encoder.

RAX : define the value of the current position (stationary shaft).

Codes : high and low limits.

COMMUNICATION MODES

Encoder configuration : Reading/Writing of the encoder objects dictionary (SDO mode).

3 modes are available to interrogate the encoder position/speed :

CYCLIC mode : the encoder transmits its position in an asynchronous manner. The frequency of the transmission is defined by the programmable cyclic timer register from 0 to 65 535 ms,

SYNCHRO mode : the encoder transmits its position on a synchronous demand by the master.

POOLING mode (Answer to a RTR signal) : the encoder only answers to a request.

CONNECTION

Type	Cable	Green – Grey GN - GY	Blue – Red BU - RD	Yellow – Pink YE - PK	Brown BN	White WH	Green – Grey GN - GY
BX	8230/020 PVC Cable	CAN LOW	CAN GND	CAN HIGH	0V	+ 5/30Vdc	CAN LOW

Nota : Refer to the bus standards for the maximal derivation length.

ORDERING REFERENCE (Contact the factory for special versions, ex : stainless steel version, connections...)

Range	Shaft Ø	Mechanics	Supply	Output	Code	Resolution	Cable	Orientation
AXM5S Magnetic – stainless steel 58mm encoder	10 10mm	AA 316 stainless steel IP69K Hygienic design	P 5 to 30Vdc	BB CANopen	B Binary	12 4096 points per revolution (2 ¹²)	BX 8230/020 PVC cable	Example A020 Axial Cable 2m
Ex:AXM5S	10 /	AA /	P	BB	B //	12 //	BX	A050

Made in France