

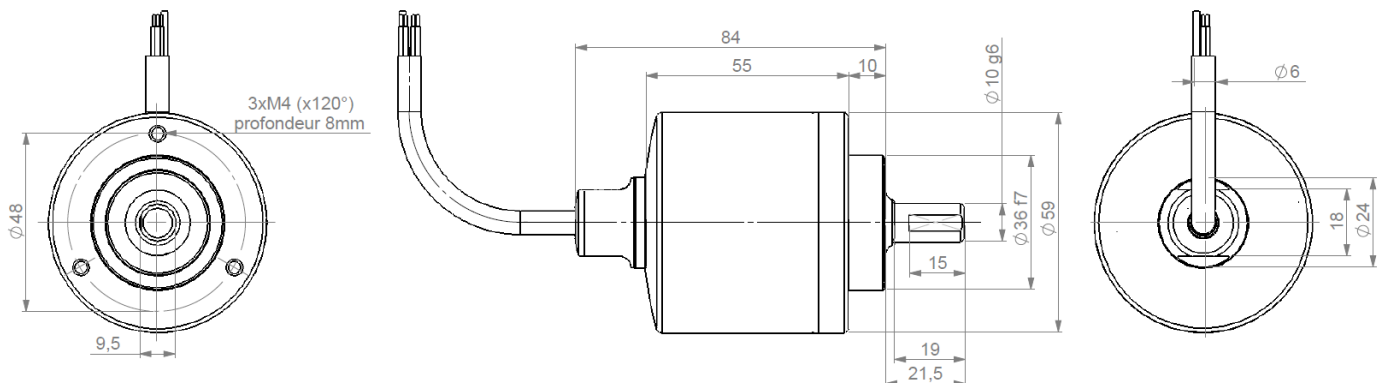
OPTICAL CANopen SINGLE-TURN ENCODERS, CXM5S – STAINLESS STEEL 316 - IP69K

- 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,
- Solid shaft version 10mm,
- High protection level IP69K,
- Universal electronic circuits from 5 to 30Vdc,
- CANopen interface,
- High performances in temperature -20°C to 85°C (-30°C option),
- Optical technology, contactless,
- High resolutions up to 4 096 points pre turn (2^{13}).
- Adapted axial cable gland output.



CANopen
DS 301 V4.02
DS 406 V3.1

CXM5S10 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)	$\leq 500 \text{ m.s}^{-2}$ (during 6 ms)
Bearings	Double ball bearings	Vibrations (EN60068-2-6)	$\leq 100 \text{ m.s}^{-2}$ (10... 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	500V (1min)
Continuous max. speed	3 000 min^{-1}	Operating temperature	$-20 \dots +85^{\circ}\text{C}$ (Encoder T°)
		Storage temperature	$-40 \dots +85^{\circ}\text{C}$

ELECTRICAL CHARACTERISTICS

Power supply	5 – 30Vdc
Introduction	< 1 s
Consumption (without load)	< 50mA (at 24Vdc)
Accuracy	± ½ LSB (13 bits)

PROGRAMMABLE PARAMETERS

Resolution: defines the resolution per revolution (0 to 8 192),

Transmission speed : programmable from 10kbaud (1000m) to 1 Mbaud (40 m) ; value per default: 20 Kbaud,

Address: define the software address of the encoder on the bus (1 to 127, value by default: id = 1),

Direction : define the direction of count of the encoder,

RAX : defines the value of its preset position (non turning shaft),

CAM: Low and High Limits.

COMMUNICATION MODES

3 modes are available to interrogate the encoder :

POLLING mode: (Response to a RTR message): The position value is only given upon request (SDO mode),

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

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

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 CODE (Special versions upon request, for ex. special flanges/electronics/connections...)

Range	Shaft Ø	Mechanics	Supply	Output	Code	Resolution	Cable	Orientation
CXM5S Optical – 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	A020 Axial Cable 2m
Ex: CXM5S	10 /	AA /	P	BB	B //	12 //	BX	A050

Made in France