| CXM5S

OPTICAL CANOPEN SINGLE-TURN ENCODERS

Features

- Adapted to food and beverage – pharmaceutic - 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° (-30°C option),
- Optical technology, contactless,
- High resolutions up to 4 096 points pre turn (2^{13})
- Adapted axial cable gland output.

SPECIFICATIONS

Material	**Shaft:** Stainless Steel 316 **Cover:** Stainless Steel 316 **Body:** Stainless Steel 316
Bearings	Double ball bearings
Maximal Loads	**Axial:** 250 N **Radial:** 500 N
Shaft Inertia	≤ $1{,}2.10^{-6}$ kg.m^2
Torque	≤ 90.10^{-3} N.m
Permissable Max. Speed	4,000 min^{-1}
Continuous Max. Speed	3,000 min^{-1}
Shocks (EN60068-2-27)	≤ 500 m.s^{-2} (during 6 ms)
Vibrations (EN60068-2-6)	≤ 100 m.s^{-2} (10… 2 000 Hz)
EMC	EN 61000-6-4, EN 61000-6-2
Isolation	500V (1min)
Encoder Weight (Approx.)	0,600 kg
Operating Temperature	- 20 ... 85°C (encoder T°)
Storage Temperature	- 40 ... + 85°C
Protection (EN 60529)	IP 69K
Theoretical mechanical lifetime 10^9 turns (F_{axial} / F_{radial})	
50 N / 100 N	12
250 N / 500 N	0,5

ELECTRICAL DATA

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.

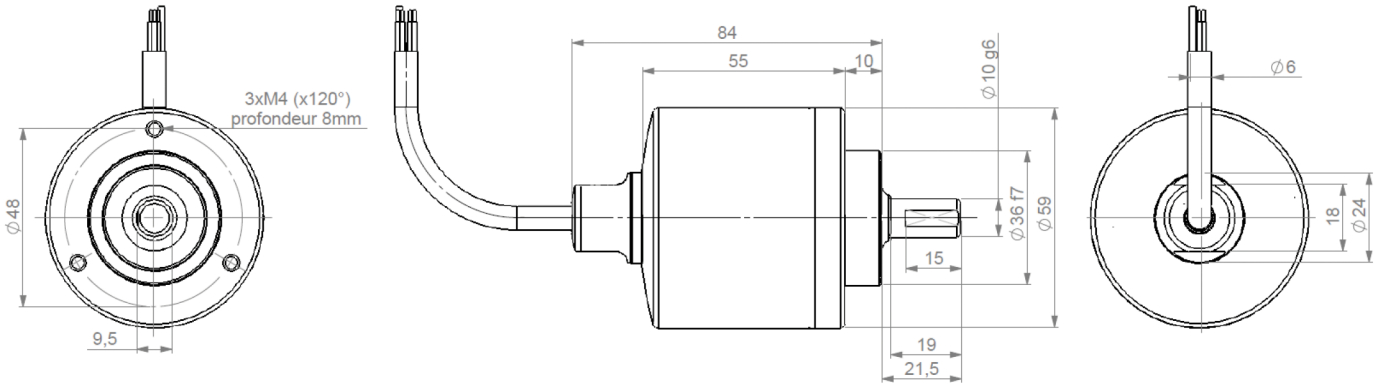
CONNECTION

Type	+Vcc	0V	CAN Low	CAN High	CAN Gnd
00	BN Brown	WH White	YE Yellow	GN Green	GY Grey

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

DIMENSIONS

Dimensions in mm



ORDERING OPTIONS

Example : CXM5S10/AA/PBBB//12//00A-****TF

Contact the factory for special versions, ex: special flanges, electronics, connections…

CXM5S 10 / AA / P BB B // 12 // 00 A-**TF**

Family

CXM5S
Optical – stainless steel 58mm encoder

Shaft Ø

10: 10mm

Mechanics

AA: 316 stainless steel
IP69K
Hygienic design

Supply

P: 5 to 30Vdc

Output

BB: CANopen

Code

B: Binary

Resolution

12: 4096 points per revolution (2^{12})

Cable

BX: 8230/020 PVC cable

Orientation

A020: Axial
Cable 2m

AGENCY APPROVALS & CERTIFICATIONS

CE

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