

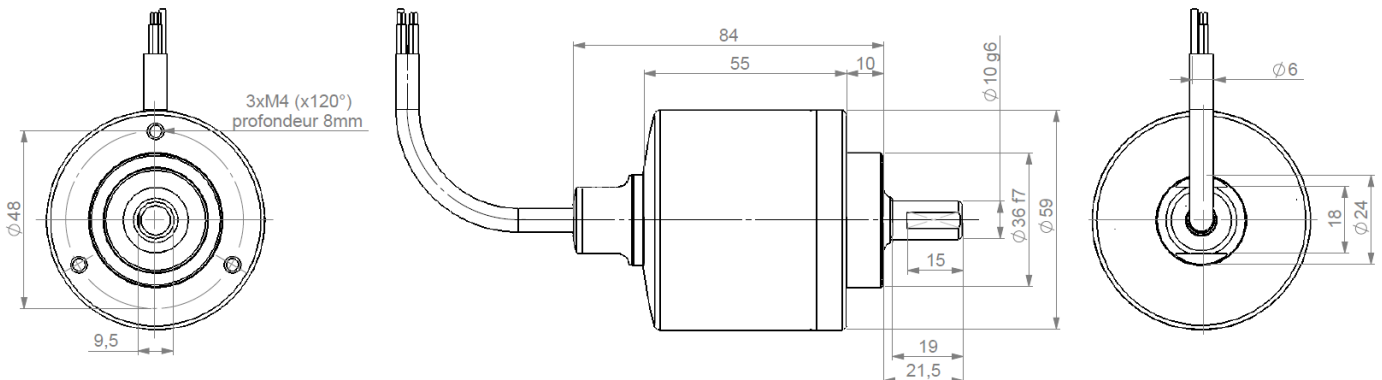
## OPTICAL PARALLEL SINGLE-TURN ENCODERS, CXM5S – STAINLESS STEEL 316 - IP69K



- 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  $\varnothing 6$  to 10mm,
- High protection level IP69K,
- Universal electronic circuits from 5 to 30Vdc,
- Isolated SSI interface, clock from 100 to 1MHz,
- Standard DIRECTION entry, LATCH option Digital or sine incremental outputs option,
- High performances in temperature  $-20^{\circ}\text{C}$  to  $90^{\circ}\text{C}$  (option  $-40^{\circ}\text{C}$  to  $100^{\circ}\text{C}$ ),
- Optical technology, contactless,
- High resolutions possibility: up to 15 bits (Gray or binary),
- Adapted axial cable gland output.



### CXM5S10 DIMENSIONS



### MECHANICAL CHARACTERISTICS

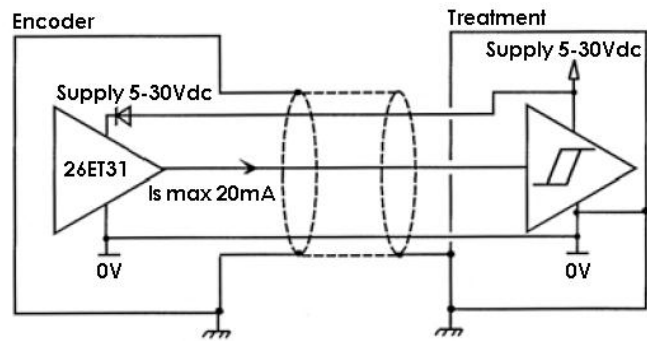
Material	Shaft: Stainless steel 316	Shaft inertia	$\leq 1,2 \cdot 10^{-6} \text{ kg.m}^2$
	Cover: Stainless steel 316	Torque	$\leq 90 \cdot 10^{-3} \text{ N.m}$
	Body: Stainless steel 316	Shocks (EN60068-2-27)	$\leq 500 \text{ m.s}^{-2}$ (during 6 ms)
Bearings	Double ball bearings	Vibrations (EN60068-2-6)	$\leq 100 \text{ m.s}^{-2}$ (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 $\text{min}^{-1}$	Isolation	1 000 $V_{\text{eff}}$
Continuous max. speed	3 000 $\text{min}^{-1}$	Operating temperature	$-20 \dots +90^{\circ}\text{C}$ (encoder T°)
		Storage temperature	$-40 \dots +100^{\circ}\text{C}$

### CONNECTION

	color	13 bits + DIRECTION CP or C3	14 bits + DIRECTION C1
1	white WH	0V	0V
2	brown BN	+Vcc	+Vcc
3	green GN	D0	D0
4	yellow YE	D1	D1
5	grey GY	D2	D2
6	pink PK	D3	D3
7	blue BU	D4	D4
8	red RD	D5	D5
9	black BK	D6	D6
10	violet VT	D7	D7
11	white/brown WH/BN	D8	D8
12	white/green WH/GN	D9	D9
13	white/yellow WH/YE	D10	D10
14	white/grey WH/GY	D11	D11
15	white/pink WH/PK	D12	D12
16	white/blue WH/BU	DIRECTION	D13
17	White/red WH/RD	/	DIRECTION

Example, 10 bits encoder : only MSB will be supplied (D3 to D12)

### ELECTRONICS



Power supply : 5 to 30Vdc  
Consumption without load : 100mA max  
Current output per channel : Is=20mA max  
Level '0' (Is=20mA) max :  $V_{ol} = 0,5Vdc$   
Level '1' (Is=20mA) min :  $V_{oh} = Vcc - 2,5Vdc$

Protection against short circuits and inversion of polarity

#### DIRECTION

CW increasing code: DIRECTION pin to +Vcc  
CCW increasing code : DIRECTION pin to 0Vdc

#### LATCH (option)

Active data on the outputs : LATCH pin to 0V  
Frozen data on the outputs: LATCH pin to +Vcc

Consult us for the connection of an encoder with this option

### ORDERING REFERENCE (Contact the factory for special versions, ex: special flanges, connections, electronics...)

Range	Shaft Ø	Mechanics	Supply	Output stage	Code	Resolution	Connection	Orientation
<b>CXM5S</b> Magnetic – stainless steel 58mm encoder	<b>10</b> 10mm	<b>AA</b> 316 stainless steel  IP69K  Hygienic design	<b>P</b> 5 to 30Vdc	<b>C5</b> push pull 5 to 30Vdc	<b>B</b> Binary  <b>G</b> Gray	Power of 2:  <b>1</b> : 1 bit to <b>14</b> : 14 bits  Max: <b>15</b> bits Consult us	<b>C3</b> cable gland + 16 wires cable	Example :  <b>A020</b>  axial cable 2m
Ex:CXM5S	10 /	AA /	P	C5	G //	13 //	C3	A050

#### Monitoring function available as option :

- of the code coherence
- of the LED internal regulated current loop
- of temperature range with 2 limits

Consult us

#### Entry / output available as option:

- LATCH entry
- ERROR output for monitoring functions

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