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## PXM5S

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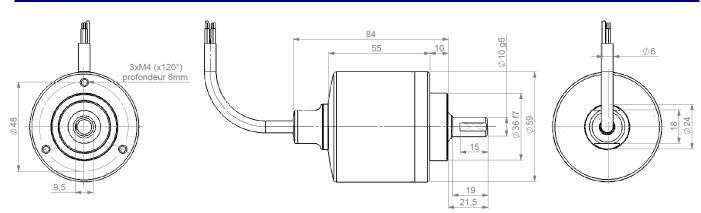
## OPTICAL SSI MULTI-TURN ENCODERS, PXM5S - STAINLESS STEEL 316 - IP69K

- 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,
- Isolated SSI interface, clock from 100 to 500 kHz,
- Protection against short-circuits and inversion of polarity,
- Available with incremental channels 2048 points 5 to 30 Vdc,
- 2 inputs : DIRECTION and RAZ,
- High performances in temperature -20°C to +85°C
- Optical technology, contactless,
- High resolutions available: 8192 (13 bits) per turn,
- Turn counting up to 65 536 (16 bits),
- Adapted axial cable gland output.





### **PXM5S10 DIMENSIONS**



#### MECHANICAL CHARACTERISTICS

	Shaft: Stainless steel 316				
Material	Cover: Stainless steel 316				
	Body: Stainless steel 316				
Bearings	Double ball bearings				
Maximal loads	Axial : 250 N				
Maximai lodas	Radial : 500 N				
Theoretical mechanical lifeti 50 N / 100 N : 12	ime 10° turns (F <sub>axial</sub> / F <sub>radial</sub> ) 250 N / 500 N : 0,5				
Permissible max. speed	4 000 min <sup>-1</sup>				
Continuous max. speed	3 000 min-1				

Shaft inertia	≤ 1,2.10-6 kg.m <sup>2</sup>
Torque	≤ 90.10 <sup>-3</sup> N.m
Shock (EN60068-2-27)	≤ 500 m.s <sup>-2</sup> (during 6 ms)
Vibration (EN60068-2-6)	≤ 100 m.s <sup>-2</sup> (10 2 000 Hz)
Encoder weight (approx.)	0,600 kg
Protection(EN 60529)	IP 69K
EMC	EN 61000-6-4, EN 61000-6-2
Isolation	100V (1 min.)
Operating temperature	- 20 + 85 °C (encoder T°)
Storage temperature	- 20 + 85 °C



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# PXM5S

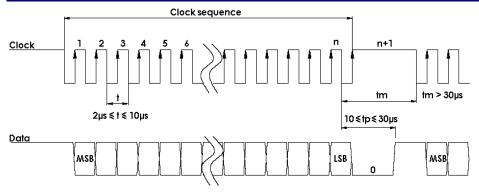
## OPTICAL SSI MULTI-TURN ENCODERS, PXM5S – STAINLESS STEEL 316 - IP69K

## **ELECTRICAL CHARACTERISTIC**

Input signal clock CLK	per opto-coupleur				
Output signal DATA	line - driver selon RS422				
Clock frequency CLK	100kHz – 500kHz				
Precision	± ½ LSB (13 bits)				

	_
Power supply	5 – 30Vdc
Introduction	< 1 s
Cons. without load	< 100mA (typically 50-60mA at 24Vdc)
Position refresh	< 200µs

#### SSI TRANSMISSION



Transmission	Transmission up to 400m* at 100kHz in function of the cable characteristics
Cable	High security of transmission by using shielded cable and twisted pairs

\*Consult us for length > 100m

#### CONNECTION

Туре	Vcc	Gnd	Clk+	Data+	RAZ	Data-	Clk-	DIRECTION
\$5	Red	Black	Green	Brown	Blue	Orange	Yellow	Violer
	RD	BK	GN	BN	BU	OR	YE	VT

Nota: Do not connect other pinouts, connect DIRECTION and RAZ to a potential (RAZ at 0V if not used)

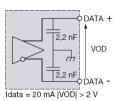
#### Data output RS422

## Isolated Clk input Power supply: 5 to 30 V

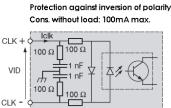
Max ond.: 500mV for 11 to 30Vdc power supply

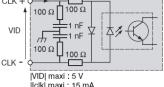
#### **DIRECTION** input

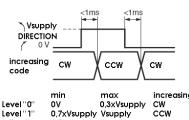
#### RAZ / RAX input

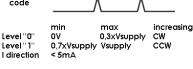


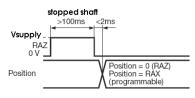
Protection against short circuits











0.3xVsupply Level"0 0 V 0,7xVsupply Vsupply IRAZ/RAX < 5mA

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

Range	Shaft Ø	Mechanics	Supply	Output	Code	Resolution			Cable	Orientation	
PXM5S	10	AA	P S	ss	B 13 B12 D5 \$5	SS B 13 B12 D5	13 B12 D5			\$5	Example
Optical – stainless	10mm	316 stainless steel	5 to 30Vdc	SSI without	binary	Resolution	Turn	Data	Cable output	A020 :	
steel 58mm IP69 encoder	IP69K		parity	G	13	B12	D5		axial 2 meters		
		Hygienic design			Gray	13 bits	12 bits	25 bits frame			
Ex: PXM5S	10 /	AA /	P	SS	G //	13	B12	D5 //	\$5	A050	

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