

CIO90P – INCREMENTAL OPTICAL ENCODER Ø90 – SOLID SHAFT

Technical characteristics

Output	Push-Pull (HTL), RS422 (TTL) compatible
Power supply	5Vdc
	4.75 ... 32 Vdc
Resolution	1 to 100 000 PPR
Max. admissible rotational speed	9 000 rpm
Max. continuous rotational speed	6 000 rpm
Max. axial load	100N
Max. radial load	200N
Material	Body and cover: aluminum (RohS)
	Shaft: stainless steel
Protection	IP65 (IP67 optional)
Connection	M23 – 12 pins CW
	PVC cable 8 wires (standard length : 2m)
Weight	~ 900 g
Operating temperature	-20°C ... +100°C
Storage temperature	-40°C ... +100°C



Ordering reference

	CIO90P_12	PPCA	000512	GR1/03	A00
Model					
CIO90P					
Shaft diameter					
11 = Ø11mm					
12 = Ø12mm					
Other dimensions on demand					
Output stage					
PP = Push-Pull (HTL) - RS422 (TTL) compatible					
Power supply					
A = 5Vdc					
C = 4.75 ... 32Vdc					
Output signals					
A = A, B, 0, /A, /B, /0 (A & B gated)					
Other output signals on demand					
Resolution					
1 à 100 000 PPR					
Connections					
A = M23 – 12 pins CW					
G = PVC cable - 8 wires					
Other connections on demand					
Orientation					
A = Axial					
R = Radial					
Connection type					
1 = Standard (please refer to the connection table page 2)					
Other connection types on demand					
Cable length for G connection					
/xx = example /03 for 3m long cable (standard 2m)					
Mechanical options					
A = None					
B = IP67 protection					
Electronic options					
00 = None					



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Electrical characteristics

PPCA electronics

Output stage: Push-Pull – compatible RS422

Power supply: 4.75 ... 32Vdc

Consumption without load:

at 5Vdc = 250 mA

at 12Vdc = 55 mA

at 24Vdc = 30 mA

at 32Vdc = 25 mA

Protected against over-voltage, polarity inversion and overcurrent

PPAA electronics

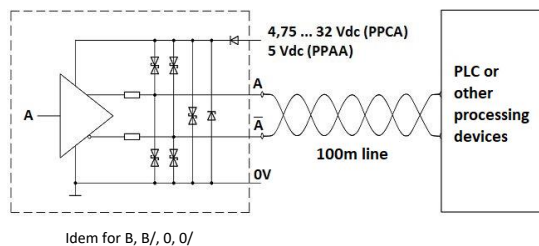
Output stage: Push-Pull – compatible RS422

Power supply: 5Vdc

Consumption without load: at 5Vdc = 50 mA

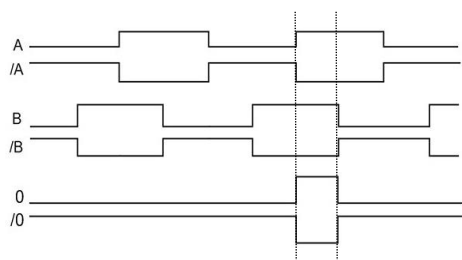
Protected against over-voltage, polarity inversion and overcurrent

Encoder

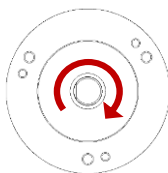


Output signals

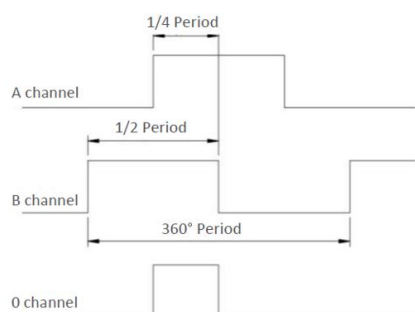
A & B gated (standard)



B channel (rising edge) before A channel in CW direction, view on axis.



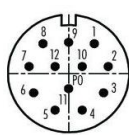
Signal tolerances



Period: electrical 360°
Duty cycle: 180° ± 10%
Phase shift: 90° ± 25%
Starting time: less than 100ms

Standard connection (Type 1)

Standard connection	M23 12 pins (CW direction)	Cable – 8 wires
Supply -	1	White
Supply +	2	Brown
Channel A	3	Green
Channel B	4	Yellow
Channel 0	5	Grey
Channel A/	6	Pink
Channel B/	7	Blue
Channel 0/	8	Red
nc	9 – 10 – 11 – 12	/

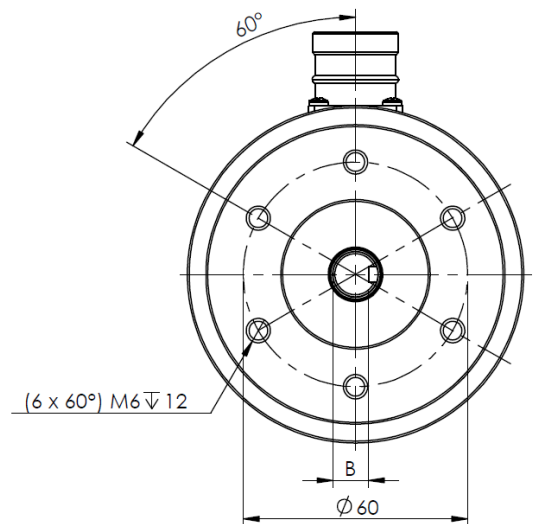
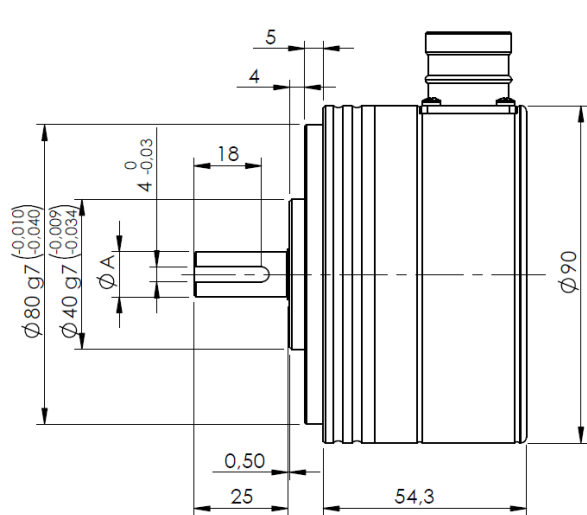


View on sensor



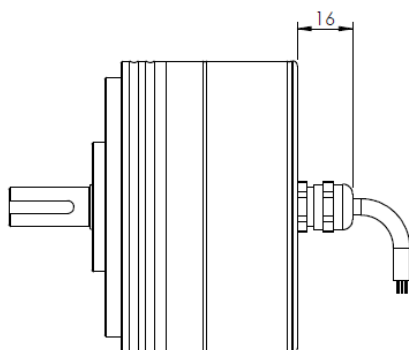
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Technical drawing

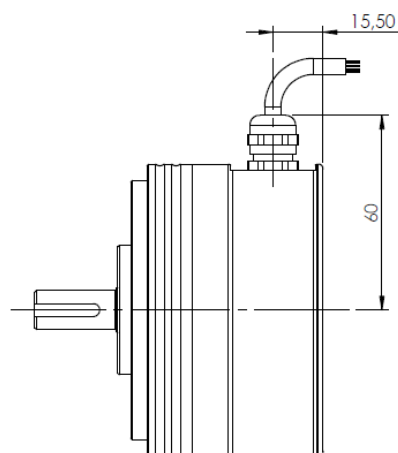


	$\varnothing A$	B
CIO90P_11	$\varnothing 11$ g7	8,50
CIO90P_12	$\varnothing 12$ g7	9,50

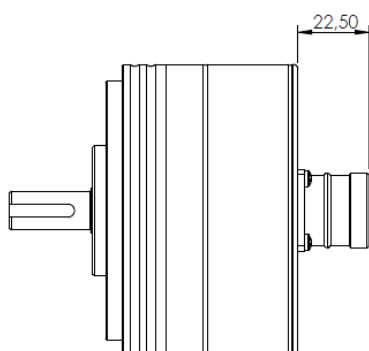
PVC cable
Standard length 2m
Axial output (GA)



PVC cable
Standard length 2m
Radial output (GR)



M23 – 12 pins
CW
Radial output (AR)



M23 – 12 pins
CW
Axial output (AA)

