

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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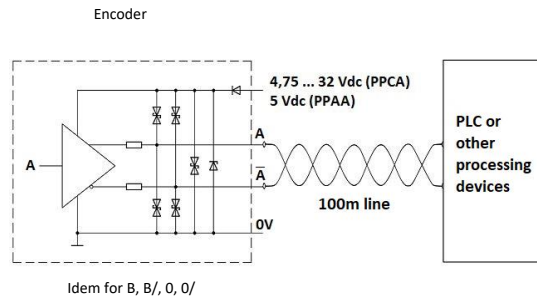
Electrical characteristics

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

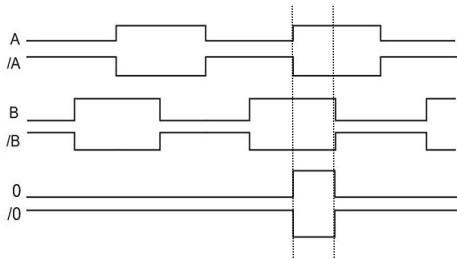
PPAA electronics

Output stage: Push-Pull – compatible RS422
 Power supply: 5Vdc
 Consumption without load: at 5Vdc = 50 mA
 Protected against over-voltage, polarity inversion and overcurrent

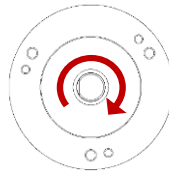


Output signals

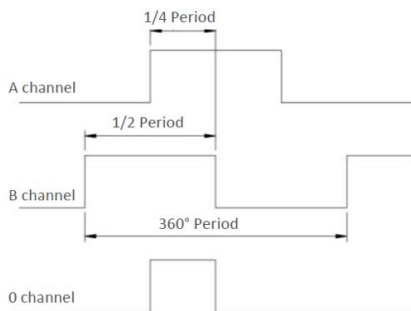
A & B gated (standard)



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



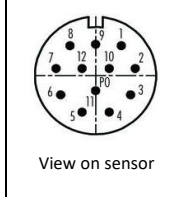
Signal tolerances



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

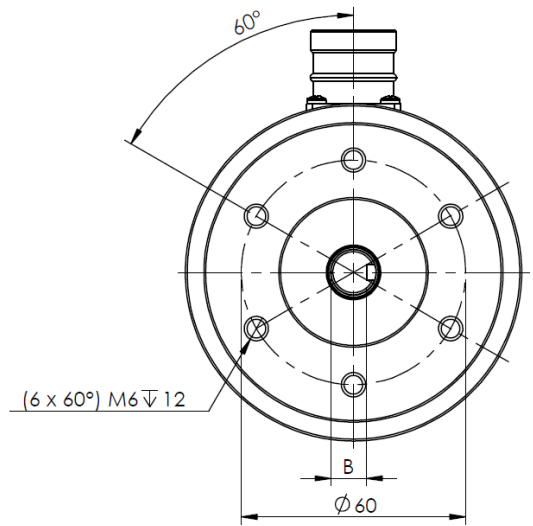
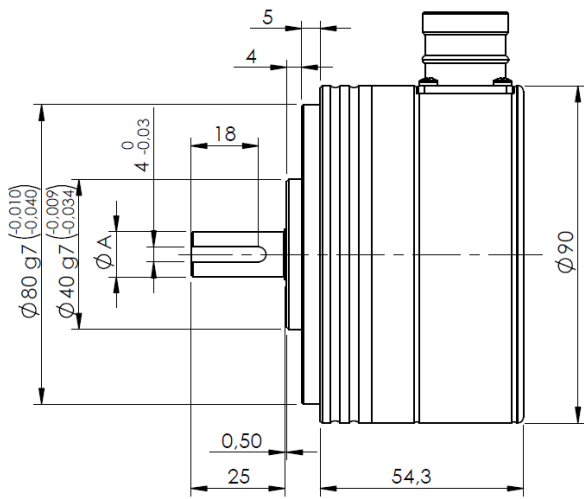
Standard connection (Type 1)

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	/



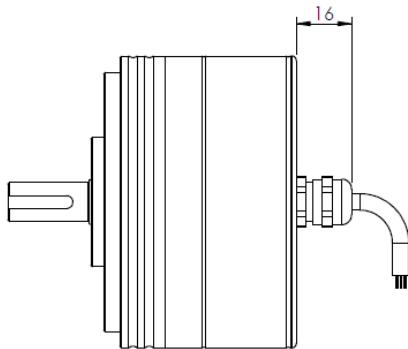
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Technical drawing

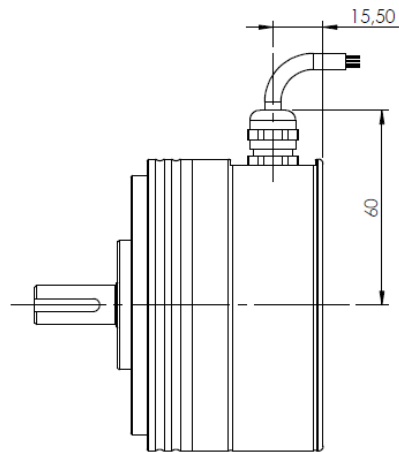


	$\varnothing A$	B
CIO90P_11	$\varnothing 11\text{ g7}$	8,50
CIO90P_12	$\varnothing 12\text{ g7}$	9,50

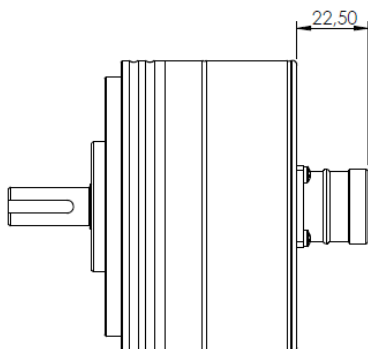
PVC cable
Standard length 2m
Axial output (GA)



PVC cable
Standard length 2m
Radial output (GR)



M23 – 12 pins
CW
Radial output (AR)



M23 – 12 pins
CW
Axial output (AA)

