

CIO58T - Optical Incremental Encoder Ø58 mm - Through shaft

Technical characteristics

|                          |   |
|--------------------------|---|
| Supply and output signal | 4.75 to 32 Vdc – Push-Pull (RS422 compatible)                   |
| Resolution               | 1 to 100 000 PPR  |
| Max. admissible velocity | 12000 turns/min   |
| Max. continuous velocity | 9000 turns/min  |
| Material                 | Body and cover - Aluminum (RohS)<br>Shaft - stainless steel     |
| Protection class         | IP65 (IP67 optional)  |
| Connection               | Male connector M23 – 12 pins (clockwise)<br>PVC cable - 8 wires |
| Weight                   | approx. 300 g   |
| Operating temperature    | -20°C ... +100°C  |
| Storage temperature      | -40°C ... +100°C  |



Ordering reference

CIO58T\_14A – PPCA – 001024 – AA1 – A0

Model

CIO58T\_

Shaft diameter

|    |                        |
|----|------------------------|
| 06 | = Through shaft Ø6 mm  |
| 08 | = Through shaft Ø8 mm  |
| 10 | = Through shaft Ø10 mm |
| 12 | = Through shaft Ø12 mm |
| 14 | = Through shaft Ø14 mm |
| 15 | = Through shaft Ø15 mm |

Other : please consult us

Clamp orientation

|   |                      |
|---|----------------------|
| A | = Clamp on the front |
| B | = Clamp on the rear  |

Output signals

|    |                                       |
|----|---------------------------------------|
| PP | = Push-Pull output - RS422 compatible |
|----|---------------------------------------|

Supply

|   |                 |
|---|-----------------|
| C | = 4.75 to 32Vdc |
|---|-----------------|

Channel options

|   |  |
|---|--|
| A | = A, B, 0, /A, /B, /0 (A & B gated) (standard) |
|---|--|

Other : please consult us

Resolution

1 to 100 000 PPR

Connection

|   |                             |
|---|-----------------------------|
| A | = M23 - 12 pins (clockwise) |
| G | = PVC cable - 8 wires       |

Other : please consult us

Orientation

|   |          |
|---|----------|
| R | = Radial |
|---|----------|

Connection type

|   |   |
|---|---|
| 1 | = Standard (please refer to the connection table) |
|---|---|

Other : please consult us

Cable length (for G type connection)

|     |                                     |
|-----|-------------------------------------|
| /xx | = for example /03 for 3m long cable |
|-----|-------------------------------------|

Mechanical options

|   |                   |
|---|-------------------|
| A | = None            |
| B | = IP67 protection |

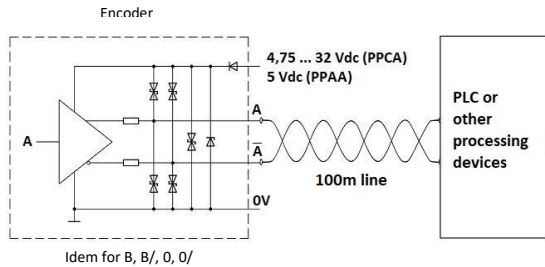
Electronical options

|   |        |
|---|--------|
| 0 | = None |
|---|--------|

Electrical characteristics

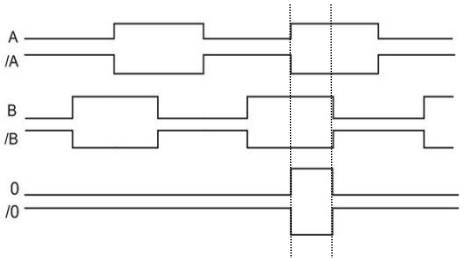
PPCA electronics

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

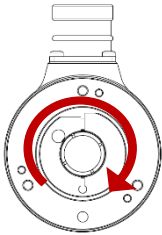


Output signals

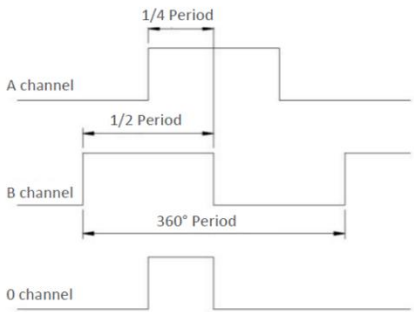
A & B gated (standard)



B channel (rising edge) before A channel in CW direction, seen on the axis on the threaded side of the base.



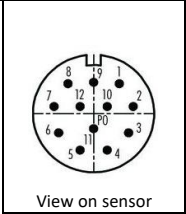
Signal tolerances



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

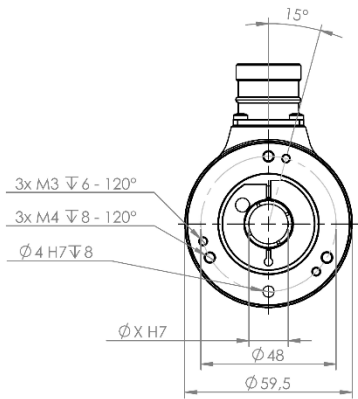
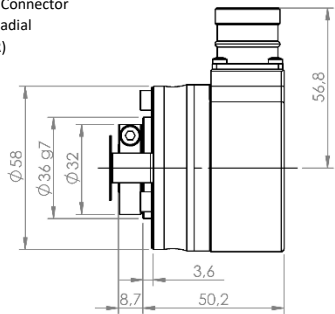
Standard connection (Type 1)

| Standard connection | M23 12 pins<br>(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              | /               |

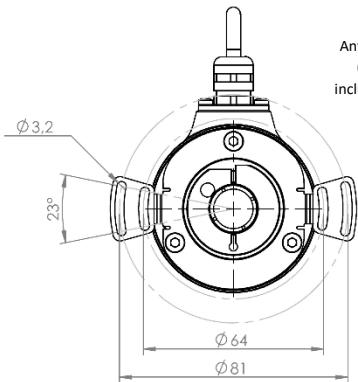
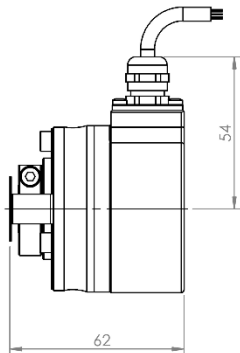




M23-12 pins Connector  
CW – Radial  
(AR)

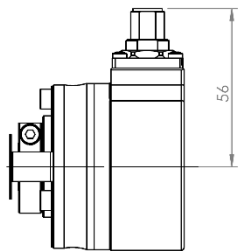


Radial PVC Cable  
8 wires  
(GR)

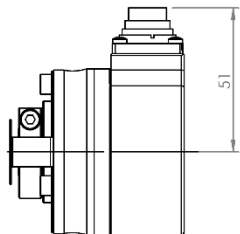


Anti-rotation flexible  
(Ref. 1500-001)  
included with encoder

Radial M12 – 8 pins  
Connector (A coding)  
(FR)



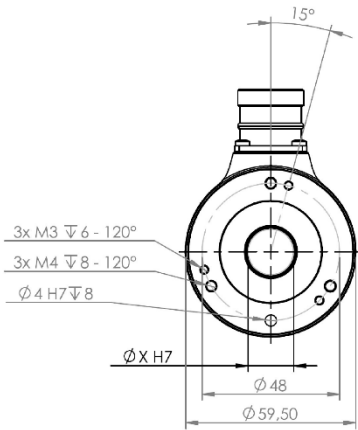
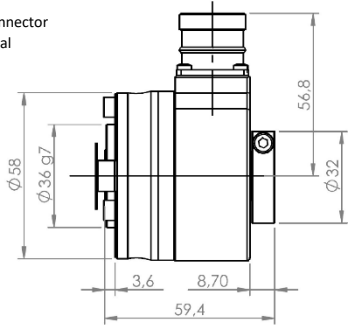
Radial M16 – 8 pins  
(DIN) Connector  
(DR)



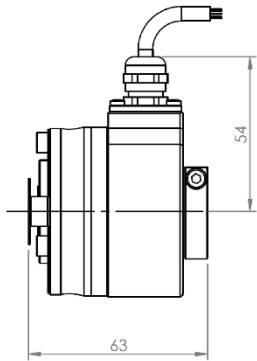
| Ref       | ØX |
|-----------|----|
| CIO58T_06 | 6  |
| CIO58T_08 | 8  |
| CIO58T_10 | 10 |
| CIO58T_12 | 12 |
| CIO58T_14 | 14 |
| CIO58T_15 | 15 |



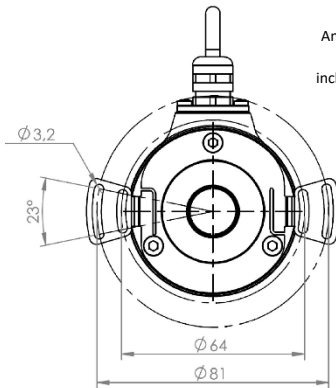
M23-12 pins Connector  
CW – Radial  
(AR)



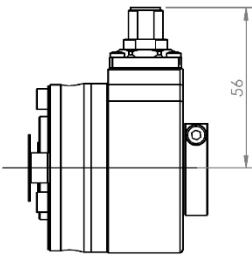
Radial PVC Cable  
8 wires  
(GR)



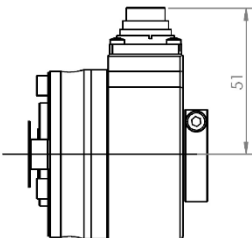
Anti-rotation flexible  
(Ref. 1500-001)  
included with encoder



Radial M12 – 8 pins  
Connector (A coding)  
(FR)



Radial M16 – 8 pins  
(DIN) Connector  
(DR)



| Ref       | ØX |
|-----------|----|
| CIO58T_06 | 6  |
| CIO58T_08 | 8  |
| CIO58T_10 | 10 |
| CIO58T_12 | 12 |
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