

POG 83

Solid shaft $\varnothing 11$ mm with EURO flange B10

512...4096 pulses per revolution

Overview

- Encoder in stainless steel
- Offshore and salt water firm
- Protection IP 66, IP 67 and IP 69K
- Specially designed for deck machinery and cranes in offshore and marine environment
- M23 flange connector in stainless steel



Technical data

Technical data - electrical ratings

| | |
|-----------------------|--|
| Voltage supply | 4.75...30 VDC (HTL/TTL) |
| Consumption w/o load | ≤ 70 mA |
| Pulses per revolution | 512 ... 4096 |
| Phase shift | $90^\circ \pm 10^\circ$ |
| Duty cycle | 40...60 % |
| Reference signal | Zero pulse, width 90° |
| Sensing method | Optical |
| Output frequency | ≤ 300 kHz (TTL) ≤ 160 kHz (HTL) |
| Output signals | A+, A-, B+, B-, R+, R- |
| Output stages | Universal HTL/TTL ($V_{in} = V_{out}$) |
| Interference immunity | EN 61000-6-2 |
| Emitted interference | EN 61000-6-3 |
| Approval | CE UL approval / E217823 |

Technical data - mechanical design

| | |
|---------------------|---|
| Size (flange) | $\varnothing 115$ mm |
| Shaft type | $\varnothing 11$ mm solid shaft |
| Admitted shaft load | ≤ 250 N axial ≤ 350 N radial |

Technical data - mechanical design

| | |
|-------------------------|---|
| Flange | EURO flange B10 |
| Protection EN 60529 | IP 66 IP 67 IP 69K |
| Operating speed | ≤ 6000 rpm (mechanical) |
| Operating torque typ. | 6.5 Ncm |
| Rotor moment of inertia | 450 gcm ² |
| Material | Housing: stainless steel Shaft: stainless steel |
| Operating temperature | -40...+85 °C |
| Resistance | IEC 60068-2-6 Vibration 20 g, 10-2000 Hz IEC 60068-2-27 Shock 300 g, 1 ms |
| Corrosion protection | IEC 60068-2-52 Salt mist for ambient conditions CX (C5-M) according to ISO 12944-2 |
| Connection | Flange connector M23 |
| Weight approx. | 3.5 kg |

Optional

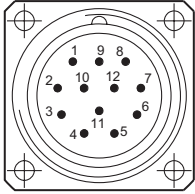
- Approval DNV GL optional (POG 83 - DNV GL)

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Terminal assignment

View A (see dimension)
Assignment flange connector



Flange connector M23, male, 12-pin, counter-clockwise (CCW)

| Pin | Assignment |
|-----|----------------|
| 1 | B- |
| 2 | dnu |
| 3 | R+ |
| 4 | R- |
| 5 | A+ |
| 6 | A- |
| 7 | dnu |
| 8 | B+ |
| 9 | dnu |
| 10 | 0V (\perp) |
| 11 | dnu |
| 12 | +UB |

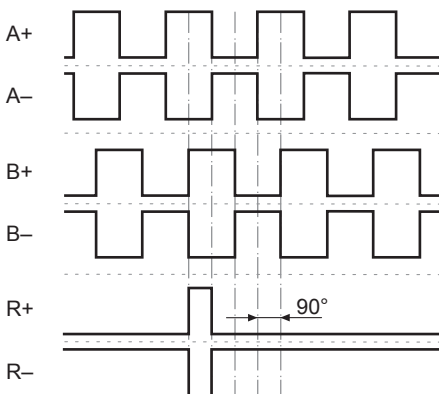
Terminal significance

| | |
|----------------|--|
| +UB | Voltage supply |
| 0V (\perp) | Ground |
| A+ | Output signal channel 1 |
| A- | Output signal channel 1 inverted |
| B+ | Output signal channel 2 (offset by 90° to channel 1) |
| B- | Output signal channel 2 inverted |
| R+ | Zero pulse (reference signal) |
| R- | Zero pulse inverted |
| dnu | Do not use |

Output signals

HTL/TTL

At positive rotating direction (see dimension)



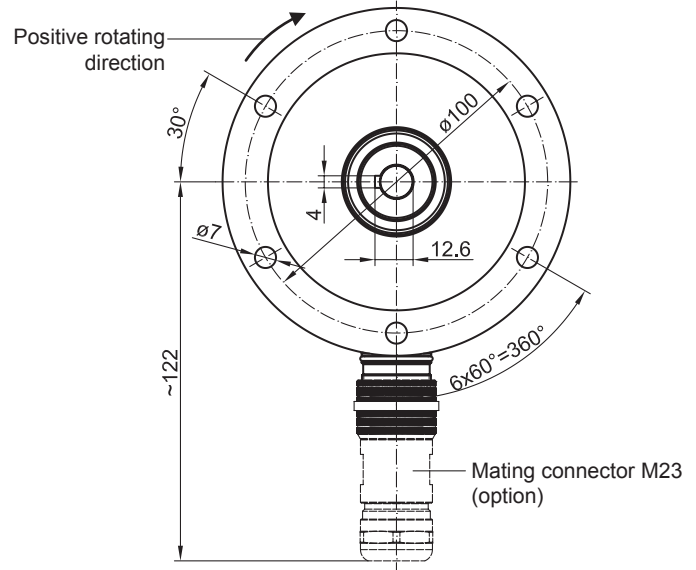
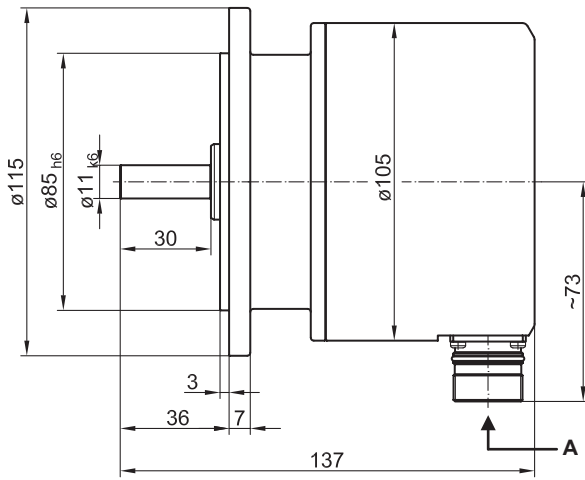
Trigger level

| | |
|----------------------|---------------------------------|
| Trigger level | TTL/RS422 |
| High / Low | ≥ 2.5 V / ≤ 0.5 V |
| Load | ≤ 20 mA |
| Trigger level | HTL/push-pull |
| High / Low | $\geq U_B - 3$ V / ≤ 1.5 V |
| Load | ≤ 20 mA |

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Dimensions



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Ordering reference

| | | | | | | | | | | | |
|---|--------------|---|---|---|---|---|---|---|---|---|------|
| | POG83 | - | S | N | F | . | 1 | F | P | . | #### |
| Product | POG83 | | | | | | | | | | |
| Incremental encoder | | | | | | | | | | | |
| Shaft type | | | | | | | | | | | |
| Solid shaft | | | S | | | | | | | | |
| Flange (Solid shaft) | | | | | | | | | | | |
| EURO flange B10, without shaft isolation | | | | N | | | | | | | |
| Protection class | | | | | | | | | | | |
| IP 66, IP67, IP69K | | | | | F | | | | | | |
| Solid shaft | | | | | | | | | | | |
| \varnothing 11 mm, featherkey 4 mm | | | | | | | 1 | | | | |
| Connection | | | | | | | | | | | |
| Flange connector M23, 12 pin, radial, male contacts, CCW | | | | | | | | F | | | |
| Supply voltage / output stages | | | | | | | | | | | |
| 4,75...30 VDC, HTL/TTL push-pull ($V_{in}=V_{out}$), 6 channels | | | | | | | | | P | | |
| Pulses per revolution | | | | | | | | | | | |
| 512 | | | | | | | | | | | 0512 |
| 1024 | | | | | | | | | | | 1024 |
| 2048 | | | | | | | | | | | 2048 |
| 4096 | | | | | | | | | | | 4096 |

(1) Other pulse numbers on request.

Accessories
Mounting accessories

- Spring disk coupling K 35 (shaft \varnothing 6...12 mm)
- Spring disk coupling K 50 (shaft \varnothing 11...16 mm)
- Spring disk coupling K 60 (shaft \varnothing 11...22 mm)