

Combination

Encoder with integrated centrifugal switch

Solid shaft with EURO flange B10

300...5000 pulses per revolution

POG 11 + FSL



POG 11 + FSL

Features

- Offshore and salt water firm, high protection IP 67
- TTL output driver for cable length up to 500 m
- Mechanical speed monitoring based on centrifugal force
- EURO-flange B10 / solid shaft \varnothing 11 mm
- Terminal boxes, turn by 180°

Optional

- Function control with EMS (Enhanced Monitoring System)
- Redundant sensing with two terminal boxes
- Housing foot (B3)

Technical data - electrical ratings

Interference immunity	EN 61000-6-2
Emitted interference	EN 61000-6-3
Approval	CE

Technical data - electrical ratings (encoder)

Voltage supply	9...30 VDC 5 VDC \pm 5 %
Consumption w/o load	\leq 100 mA
Pulses per revolution	300...5000
Phase shift	90° \pm 20°
Scan ratio	40...60 %
Reference signal	Zero pulse, width 90°
Output frequency	\leq 120 kHz \leq 300 kHz (on request)
Output signals	K1, K2, K0 + inverted Error output (only EMS)
Output stages	HTL-P (power linedriver) TTL/RS422
Sensing method	Optical

Technical data - electrical ratings (centrifugal switch)

Switching accuracy	\pm 4 % ($\Delta n = 2$ rpm/s); = +20 % ($\Delta n = 1500$ rpm/s)
Switching deviation	\leq 3 % (cw-ccw rotation)
Switching hysteresis	\sim 40 % of switching speed
Switching outputs	1 output, speed control
Output switching capacity	\leq 6 A / 230 VAC \leq 1 A / 125 VDC
Minimum switching current	50 mA

Technical data - mechanical design

Size (flange)	\varnothing 115 mm
Shaft type	\varnothing 11 mm solid shaft
Admitted shaft load	\leq 300 N axial \leq 450 N radial
Flange	EURO flange B10
Protection DIN EN 60529	IP 67
Speed (n)	\leq 1.25 · ns
Range of switching speed (ns)	850...4500 rpm ($\Delta n = 2$ rpm/s)
Operating torque typ.	3 Ncm
Rotor moment of inertia	220 gcm ²
Materials	Housing: aluminium die-cast Shaft: stainless steel
Operating temperature	-40...+100 °C -25...+100 °C (>3072 pulses per revolution)
Resistance	IEC 60068-2-6 Vibration 10 g, 10-2000 Hz IEC 60068-2-27 Shock 100 g, 6 ms
Corrosion protection	IEC 60068-2-52 Salt mist Complies to ISO 12944-5:1998 Protective paint systems (C5-M)
Connection	2x terminal box 3x terminal box (with option M)
Weight approx.	2.3 kg, 2.5 kg (with option M)

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Part number

Incremental encoder with centrifugal force switch FSL

POG11

		DN				+ FSL			
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					<p>Mounting type EURO flange B10 B3 Housing foot</p> <p>Switching speed (ns)</p> <p>6 850...949 rpm ($\Delta n = 2$ rpm/s)*</p> <p>5 950...1099 rpm ($\Delta n = 2$ rpm/s)*</p> <p>4 1100...1299 rpm ($\Delta n = 2$ rpm/s)*</p> <p>3 1300...1799 rpm ($\Delta n = 2$ rpm/s)*</p> <p>2 1800...2499 rpm ($\Delta n = 2$ rpm/s)*</p> <p>1 2500...4500 rpm ($\Delta n = 2$ rpm/s)*</p> <p>Voltage supply / signals</p> <p>I 9...30 VDC / output stage HTL with inverted signals</p> <p>TTL 5 VDC / output stage TTL with inverted signals</p> <p>R 9...30 VDC / output stage TTL with inverted signals</p> <p>Pulse number - see table</p> <p>Output signals</p> <p>DN K1, K2, K0</p> <p>Redundant sensing</p> <p>Without redundant sensing</p> <p>M With redundant sensing (not possible at version with housing foot B3)</p> <p>EMS - Enhanced Monitoring System</p> <p>Without EMS</p> <p>.2 With EMS</p>

Pulse number

300	1000	2048	4096
500	1024	2500	5000
512	1200	3072	

Other pulse numbers on request.
 * Please specify the exact switching speed in addition to the part number (factory setted threshold).

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Encoder with integrated centrifugal switch

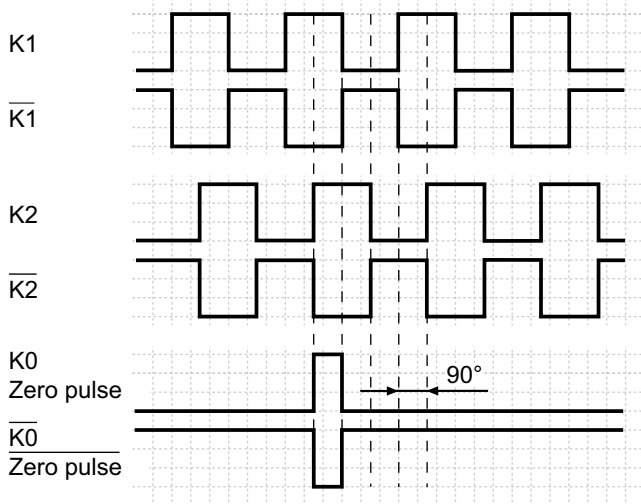
Solid shaft with EURO flange B10

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POG 11 + FSL

Output signals

At positive rotating direction



Option EMS: LED status / Error output

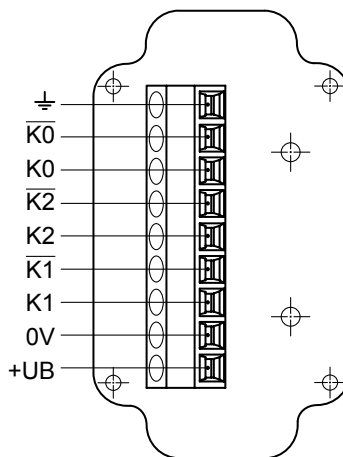
Flash light red*	Error of signal sequence, zero pulse or pulses (Error output = HIGH-LOW alternation)
Red	Overload output driver (Error output = LOW)
Flash light green	Encoder o.k., rotating (Error output = HIGH)
Green	Encoder o.k., stopped (Error output = HIGH)
No light	No output voltage connection or wrong connection (Error output = LOW)

* Only at rotating encoder

Terminal assignment

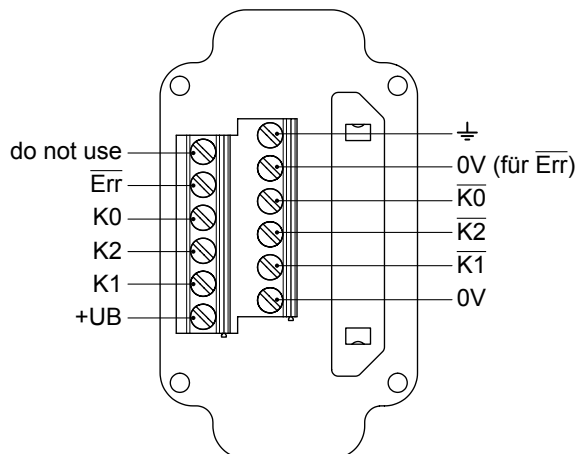
View A

Connecting terminal in terminal box POG 11



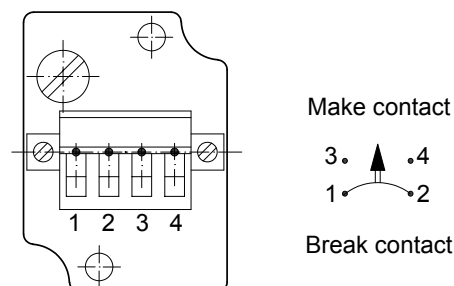
Option EMS: View A

Connecting terminal in terminal box POG 11.2



View B

Connecting terminal mechanical centrifugal switch FSL



Accessories

Connectors and cables

HEK 8	Sensor cable for encoders
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Mounting accessories

Spring washer K 35, shaft $\varnothing 6 \dots 12$ mm	Spring washer coupling for solid shaft $\varnothing 6 \dots 12$ mm
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Spring washer K 50, shaft $\varnothing 11 \dots 16$ mm	Spring washer coupling for solid shaft $\varnothing 11 \dots 16$ mm
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Spring washer K 60, shaft $\varnothing 11 \dots 22$ mm	Spring washer coupling for solid shaft $\varnothing 11 \dots 22$ mm
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Diagnostic accessories

11075858	Analyzer for encoders HENQ 1100
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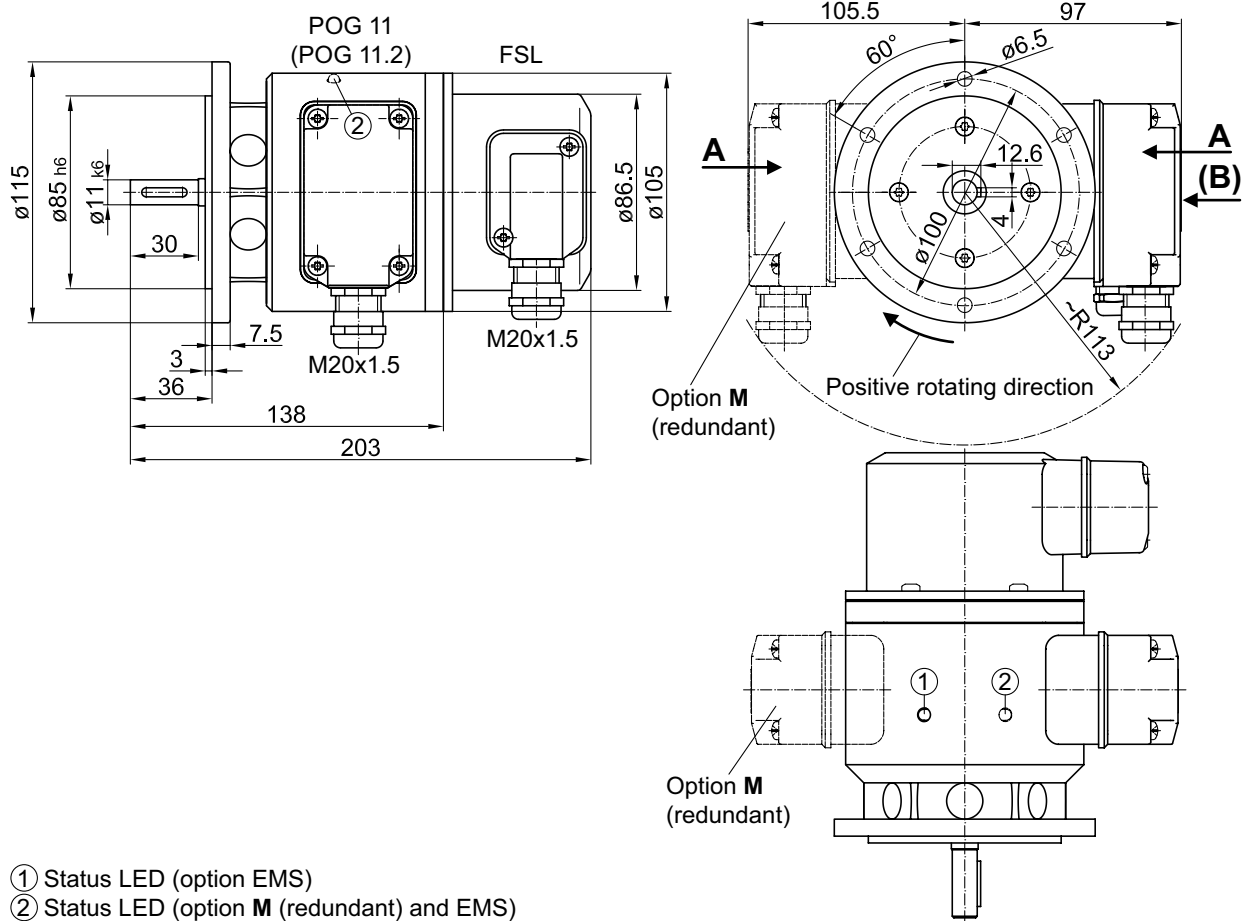
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Dimensions

POG 11 + FSL (POG 11.2 + FSL, POG 11 M + FSL, POG 11.2 M + FSL) - Version with B10 Euro flange



POG 11 + FSL - Version with housing foot

