

Combination

Encoder with integrated centrifugal switch

Solid shaft with EURO flange B10

300...5000 pulses per revolution

POG 11 + FSL



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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°
Duty cycle	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 (option 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 for ambient conditions C5-M (CX) according to ISO 12944-2
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

POG11

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

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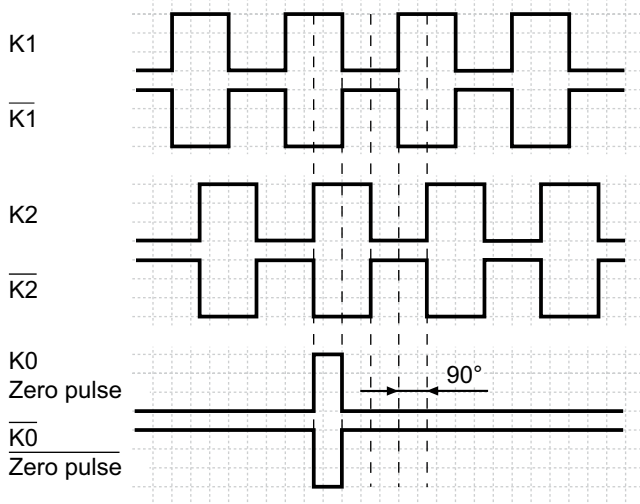
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Output signals

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	Device o.k., rotating (Error output = HIGH)
Green	Device o.k., stopped (Error output = HIGH)
No light	No voltage supply connection or wrong connection (Error output = LOW)

* Only at rotating device

Accessories

Connectors and cables

HEK 8 Sensor cable for encoders

Mounting accessories

K 35 Spring washer coupling for solid shaft $\varnothing 6...12$ mm

K 50 Spring washer coupling for solid shaft $\varnothing 11...16$ mm

K 60 Spring washer coupling for solid shaft $\varnothing 11...22$ mm

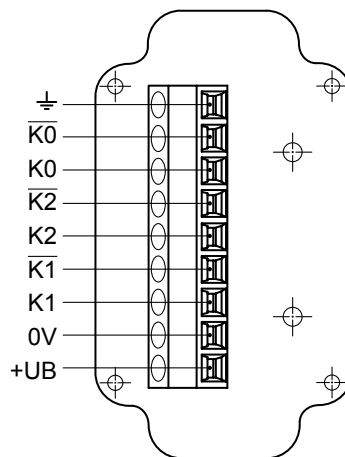
Diagnostic accessories

11075858 Analyzer for encoders HENQ 1100

Terminal assignment

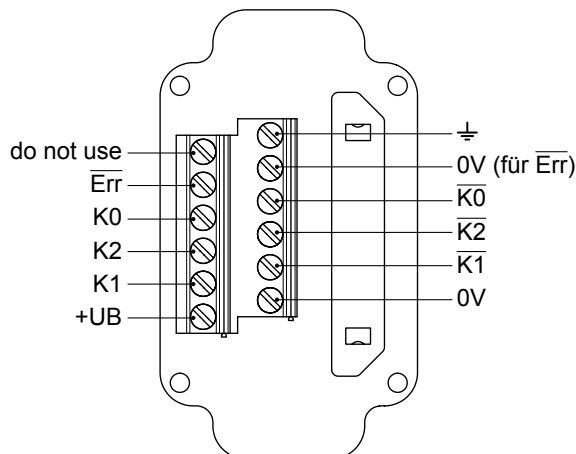
View A

Connecting terminal in terminal box POG 11



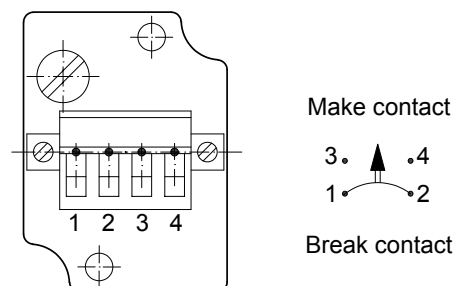
Option EMS: View A

Connecting terminal in terminal box POG 11.2



View B

Connecting terminal mechanical centrifugal switch FSL



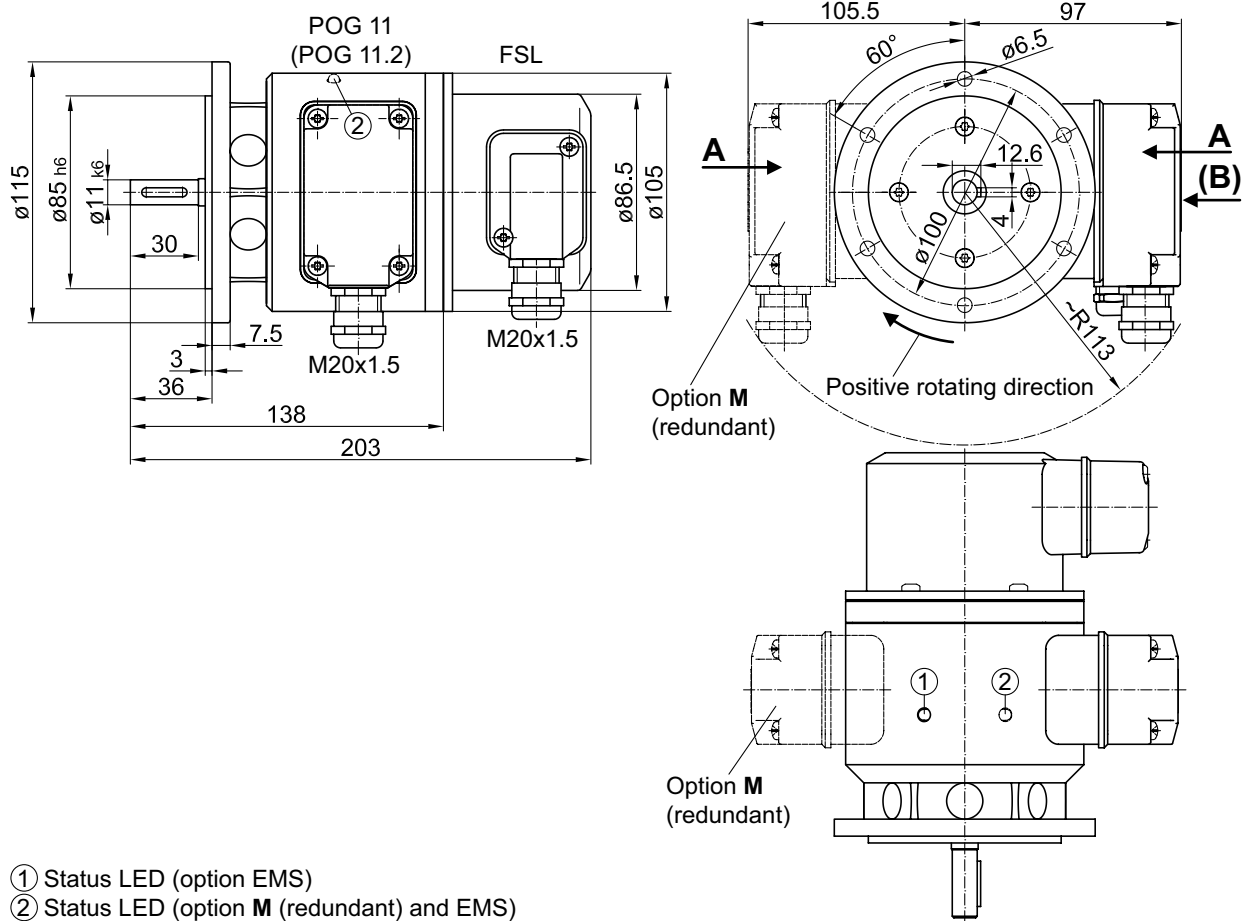
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Dimensions

EURO flange B10



Housing foot B3

