

# Combination

Encoder with integrated centrifugal switch

Solid shaft with EURO flange B10

300...5000 pulses per revolution

POG 10 + FSL



POG 10 + FSL

## Features

- 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)
- With heating up to -50°C

## 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 66
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 <sup>2</sup>
Materials	Housing: aluminium die-cast Shaft: stainless steel
Operating temperature	-40...+100 °C -25...+100 °C (>3072 pulses per revolution) -50...+100 °C (optional)
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 (C4)
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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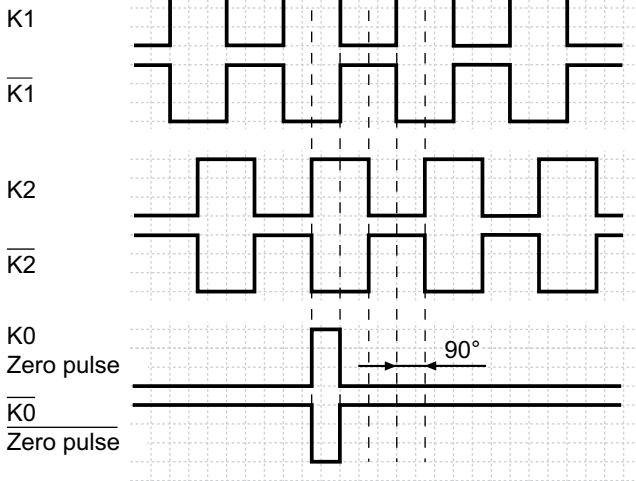
Solid shaft with EURO flange B10

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## POG 10 + FSL

### Output signals

At positive rotating direction



### Option EMS: LED status / Error output

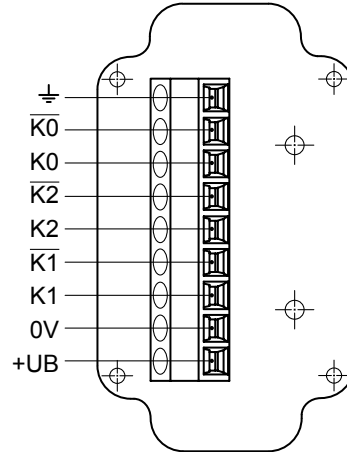
Flash light red*	Error of signal sequence, zero pulse or pulses (Error output = HIGH-LOW alternation)
Red	Overload output driver (Error output = LOW)
Flash light green	Encoder o.k., rotating (Error output = HIGH)
Green	Encoder o.k., stopped (Error output = HIGH)
No light	No output voltage connection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

\* Only at rotating encoder

### Terminal assignment

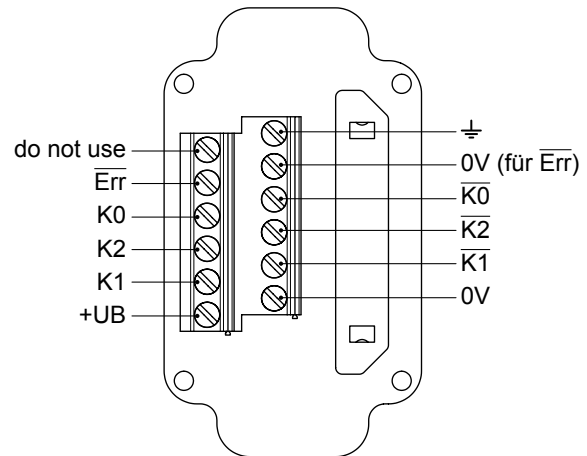
#### View A

Connecting terminal in terminal box POG 10



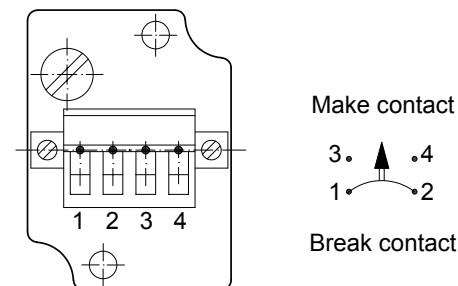
#### Option EMS: View A

Connecting terminal in terminal box POG 10.2



#### View B

Connecting terminal mechanical centrifugal switch FSL



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## Accessories

### Connectors and cables

HEK 8	Sensor cable for encoders
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### Mounting accessories

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

11075858	Analyzer for encoders HENQ 1100
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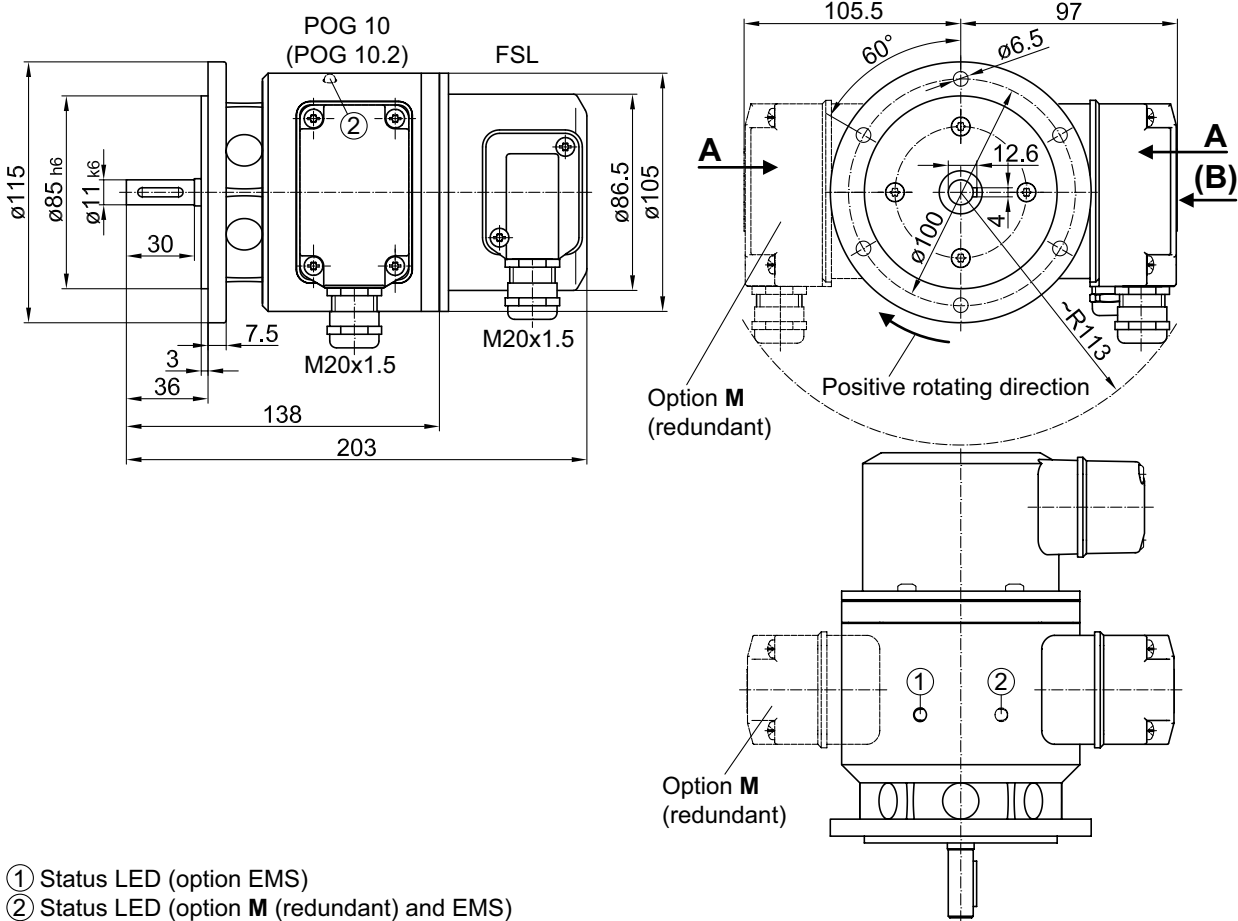
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## Dimensions

POG 10 + FSL (POG 10.2 + FSL, POG 10 M + FSL, POG 10.2 M + FSL) - Version with B10 Euro flange



POG 10 + FSL - Version with housing foot

