

# Combination

Encoder with integrated centrifugal switch

Solid shaft with EURO flange B10

300...5000 pulses per revolution

POG 10 + FSL



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## 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° $\pm 20$ °
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 66
Speed (n)	$\leq 1.25 \cdot ns$
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 for ambient conditions C4 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**

POG10 

		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 (<math>\Delta n = 2</math> rpm/s)* 5 950...1099 rpm (<math>\Delta n = 2</math> rpm/s)* 4 1100...1299 rpm (<math>\Delta n = 2</math> rpm/s)* 3 1300...1799 rpm (<math>\Delta n = 2</math> rpm/s)* 2 1800...2499 rpm (<math>\Delta n = 2</math> rpm/s)* 1 2500...4500 rpm (<math>\Delta n = 2</math> 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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Encoder with integrated centrifugal switch

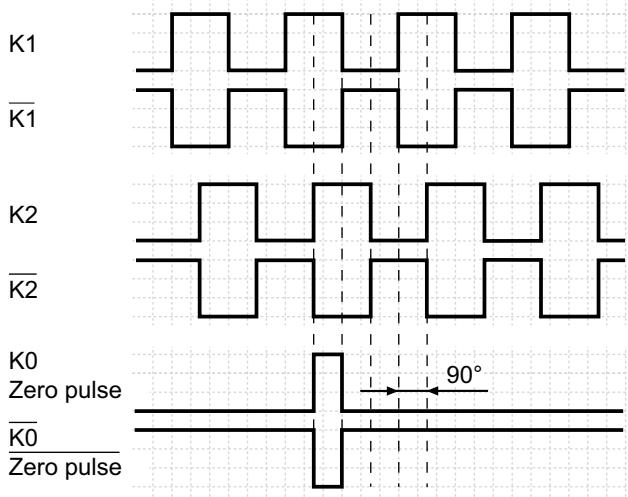
Solid shaft with EURO flange B10

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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	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

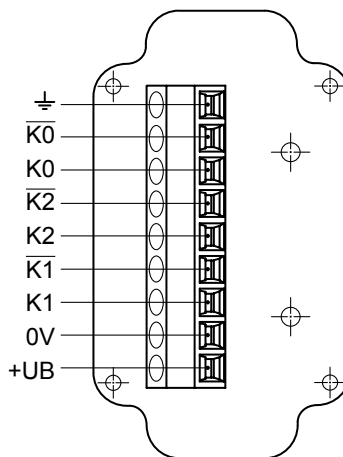
11075858 Analyzer for encoders HENQ 1100

11075880 Analyzer for encoders HENQ 1100 with a power pack

### Terminal assignment

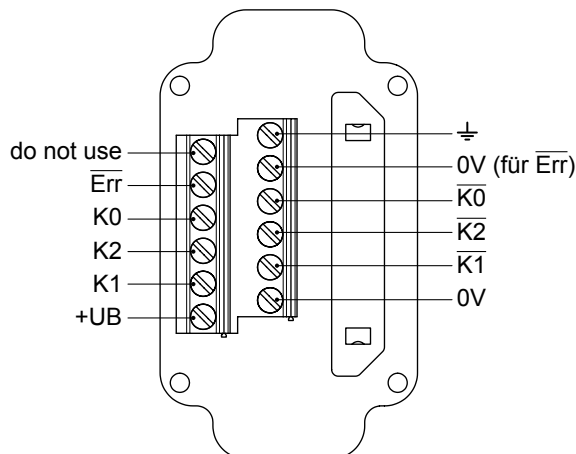
#### View A

Connecting terminal in terminal box POG 10



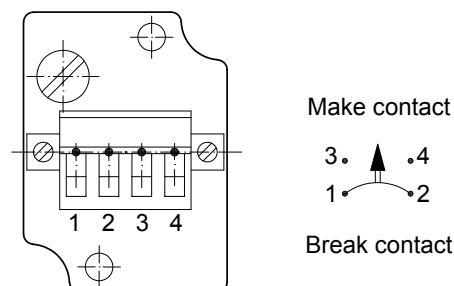
#### Option EMS: View A

Connecting terminal in terminal box POG 10.2



#### View B

Connecting terminal mechanical centrifugal switch FSL



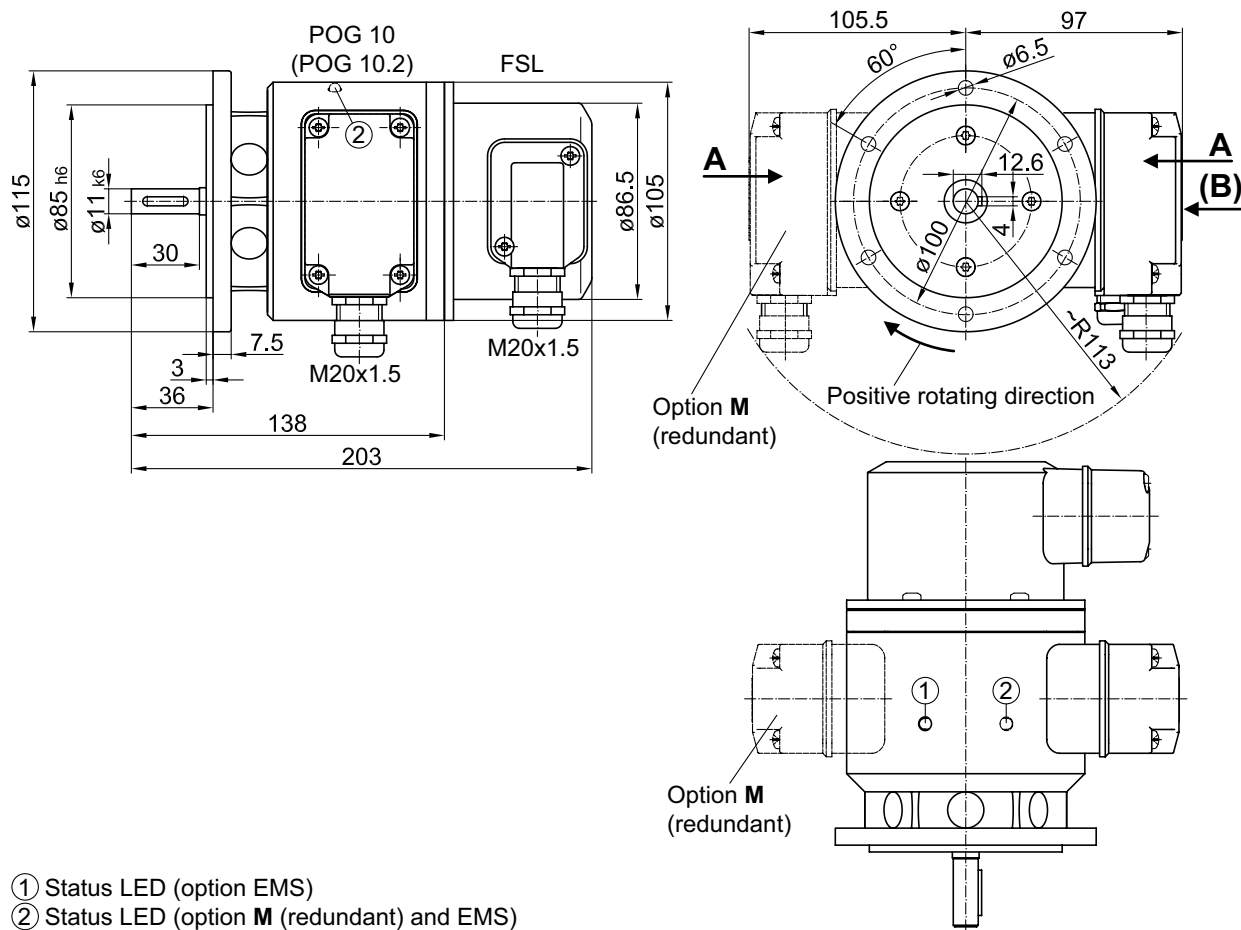
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## Dimensions

### EURO flange B10



### Housing foot B3

