

Combination

Encoder with integrated centrifugal switch

Solid shaft with EURO flange B10

1024...10000 pulses per revolution

POG 90 + FSL



POG 90 + FSL

Features

- Up to 10000 pulses per revolution
- Mechanical speed monitoring based on centrifugal force
- EURO-flange B10 / solid shaft \varnothing 11 mm
- Terminal boxes, turn by 180°

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	1024...10000
Phase shift	90° \pm 8°
Scan ratio	44...56 %
Reference signal	Zero pulse, width 90°
Output frequency	\leq 250 kHz
Output signals	K1, K2, K0 + inverted
Output stages	HTL TTL/RS422
Sensing method	Optical

Technical data - electrical ratings (centrifugal switch)

Switching accuracy	\pm 4 % ($\Delta n = 2$ rpm/s); \leq +20 % ($\Delta n = 1500$ rpm/s)
Switching deviation cw-ccw rotation	\leq 3 %
Switching hysteresis	\approx 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 250 N axial \leq 350 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	320 gcm ²
Materials	Housing: aluminium die-cast Shaft: stainless steel
Operating temperature	-20...+85 °C
Resistance	IEC 60068-2-6 Vibration 5 g, 10-2000 Hz IEC 60068-2-27 Shock 50 g, 11 ms
Connection	2x terminal box
Weight approx.	2.6 kg

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Part number

Incremental encoder with centrifugal force switch FSL

POG90

DN					+ FSL	
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					<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)*
					<u>Voltage supply / signals</u>
					I 9...30 VDC / output circuit HTL with inverted signals
					TTL 5 VDC / output circuit TTL with inverted signals
					R 9...30 VDC / output circuit TTL with inverted signals
					<u>Pulse number - see table</u>
					<u>Output signals</u>
					DN K1, K2, K0

Pulse number

1024	2048	3072	4096	10000
2000	2500	3600	5000	

Other pulse numbers on request.

* Please specify the exact switching speed in addition to the part number (factory setted threshold).

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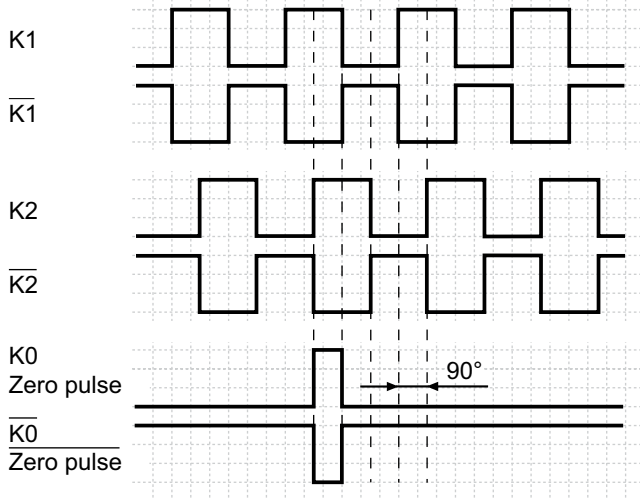
Solid shaft with EURO flange B10

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Output signals

At positive rotating direction



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

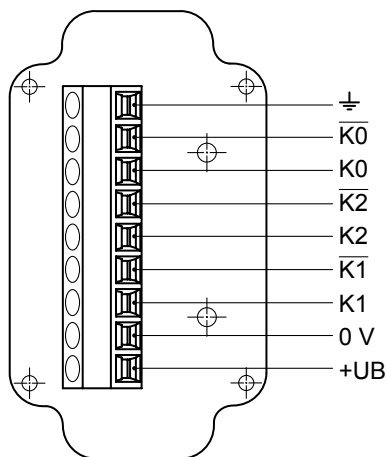
Diagnostic accessories

HENQ 1100 Analyzer for encoders

Terminal assignment

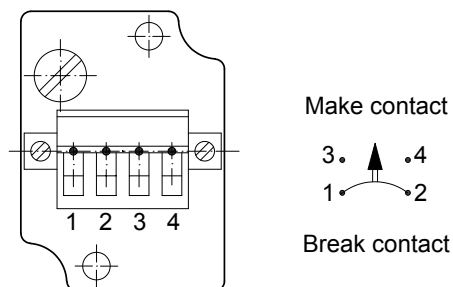
View A

Connecting terminal in terminal box POG 90



View B

Connecting terminal mechanical centrifugal switch FSL



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Dimensions

