

Combination

Encoder with integrated centrifugal switch

Solid shaft with EURO flange B10

300...5000 pulses per revolution

POG 9 + FSL



POG 9 + 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)

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 ± 5 % |
| Consumption w/o load | ≤ 100 mA |
| Pulses per revolution | 300...5000 |
| Phase shift | 90° ± 20 ° |
| Duty cycle | 40...60 % |
| Reference signal | Zero pulse, width 90° |
| Output frequency | ≤ 120 kHz ≤ 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 | ± 4 % ($\Delta n = 2$ rpm/s); = +20 % ($\Delta n = 1500$ rpm/s) |
| Switching deviation | ≤ 3 % (cw-ccw rotation) |
| Switching hysteresis | ~ 40 % of switching speed |
| Switching outputs | 1 output, speed control |
| Output switching capacity | ≤ 6 A / 230 VAC ≤ 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 | ≤ 250 N axial ≤ 350 N radial |
| Flange | EURO flange B10 |
| Protection DIN EN 60529 | IP 56 |
| 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 ² |
| Materials | Housing: aluminium die-cast Shaft: stainless steel |
| Operating temperature | -30...+100 °C -25...+100 °C (>3072 pulses per revolution) |
| Resistance | IEC 60068-2-6 Vibration 5 g, 10-2000 Hz IEC 60068-2-27 Shock 150 g, 1 ms |
| Corrosion protection | IEC 60068-2-52 Salt mist for ambient conditions C4 according to ISO 12944-2 |
| Connection | 2x terminal box |
| Weight approx. | 1.9 kg |

Combination

Encoder with integrated centrifugal switch
Solid shaft with EURO flange B10
300...5000 pulses per revolution

POG 9 + FSL

Part number

POG9

| | | | | | | |
|--|--|----|--|--|-------|--|
| | | DN | | | + FSL | |
|--|--|----|--|--|-------|--|

| | |
|---|--|
| | <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 stage HTL with inverted signals |
| | TTL 5 VDC / output stage TTL with inverted signals |
| R | 9...30 VDC / output stage TTL with inverted signals |

Pulse number - see table

Output signals
 DN K1, K2, K0

EMS - Enhanced Monitoring System
 Without EMS
 .2 With EMS

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).

Combination

Encoder with integrated centrifugal switch

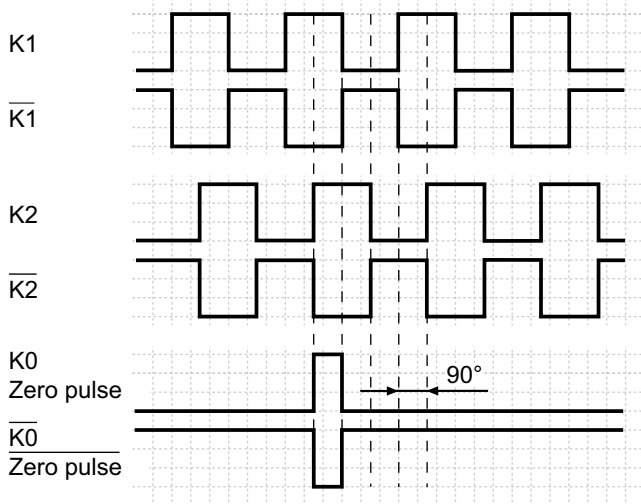
Solid shaft with EURO flange B10

300...5000 pulses per revolution

POG 9 + 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

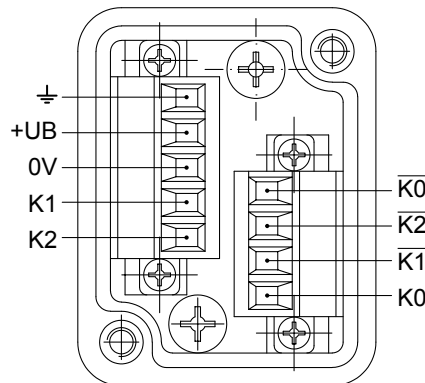
Diagnostic accessories

11075858 Analyzer for encoders HENQ 1100

Terminal assignment

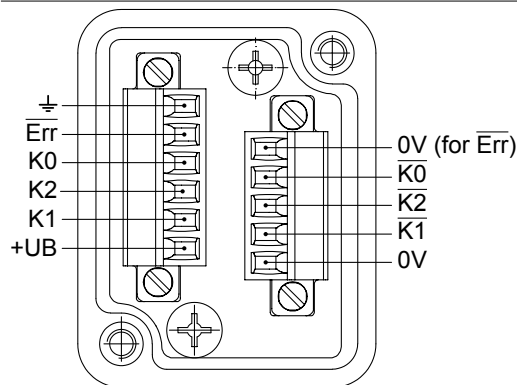
View A

Connecting terminal in terminal box POG 9



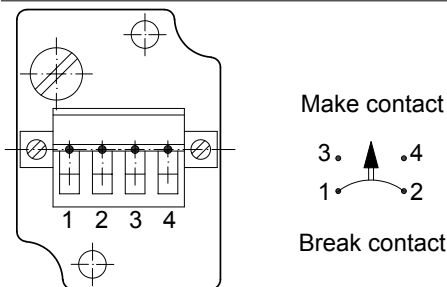
Option EMS: View A

Connecting terminal in terminal box POG 9.2



View B

Connecting terminal mechanical centrifugal switch FSL



Combination

Encoder with integrated centrifugal switch
 Solid shaft with EURO flange B10
 300...5000 pulses per revolution

POG 9 + FSL

Dimensions

