

POG 10 + DSL

Encoder with integrated programmable, digital speed switch

Solid shaft with EURO flange B10 and/or housing foot B3 / 512...2500 pulses per revolution

Overview

- Freely programmable on and off switching speed
- Programming via included software (RS485 interface)
- TTL or HTL, 512...2500 pulses per revolution
- EURO flange B10 and/or housing foot B3 / solid shaft $\varnothing 11$ mm
- DSL.R: 3 outputs speed controlled (independent transistor outputs)
- DSL.E: 2 outputs speed controlled and 1 control output



Technical data

Technical data - electrical ratings

Voltage supply With DSL.R: 15...30 VDC
With DSL.E: 9...30 VDC

Consumption w/o load ≤ 200 mA

Sensing method Optical

Technical data - electrical ratings (encoder)

Pulses per revolution 512 ... 2500

Phase shift $90^\circ \pm 20^\circ$

Duty cycle 40...60 %

Reference signal Zero pulse, width 90°

Output frequency ≤ 120 kHz

Output signals K1, K2, K0 + inverted

Output stages HTL
TTL/RS422

Technical data - electrical ratings (speed switch)

Interface RS485

Switching accuracy ± 2 % (or Digit)

Switching outputs With DSL.R: 3 outputs, speed control
With DSL.E: 2 outputs, speed control and
1 control output

Output switching capacity With DSL.R: 12 VDC; ≤ 40 mA
With DSL.E: 5...230 VAC/VDC; 5...250
mA
(EAC: < 50 VAC / 75 VDC)

Switching delay time ≤ 40 ms

Technical data - mechanical design

Size (flange) $\varnothing 115$ mm

Shaft type $\varnothing 11$ mm solid shaft

Admitted shaft load ≤ 300 N axial
 ≤ 450 N radial

Technical data - mechanical design

Flange EURO flange B10
Housing foot B3

Protection EN 60529 IP 66

Speed (n) ≤ 6000 rpm

Range of switching speed (ns) Pulses = 512: ± 16 ...6000 rpm
Pulses = 1024: ± 8 ...6000 rpm
Pulses = 2048: ± 4 ...3500 rpm
Pulses = 2500: ± 3 ...2900 rpm

Operating torque ≤ 2 Ncm

Rotor moment of inertia 290 gcm²

Material Housing: aluminium
Shaft: stainless steel

Operating temperature -30 ... $+85$ °C

Resistance IEC 60068-2-6
Vibration 20 g, 10-2000 Hz
IEC 60068-2-27
Shock 200 g, 6 ms

Corrosion protection IEC 60068-2-52 Salt mist
for ambient conditions C4 according to
ISO 12944-2

Explosion protection II 3 G Ex ec IIC T4 Gc (gas)
II 3 D Ex tc IIIC T135°C Dc (dust)
(only with option ATEX)

Connection Terminal box

Weight approx. 3.3 kg

Interference immunity EN 61000-6-2

Emitted interference EN 61000-6-3

Approval CE

Optional

- Relay module DS 93 R (DSL.R version only)

POG 10 + DSL

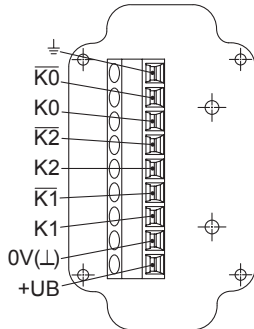
Encoder with integrated programmable, digital speed switch

Solid shaft with EURO flange B10 and/or housing foot B3 / 512...2500 pulses per revolution

Terminal assignment

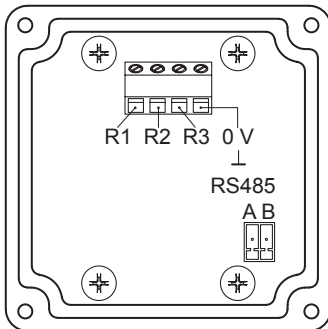
View A (see dimension)

Connecting terminal terminal box encoder



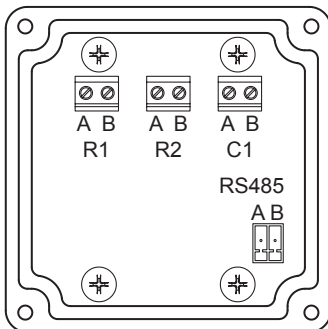
View B (see dimension)

Connecting terminal speed switch DSL.R



View B (see dimension)

Connecting terminal speed switch DSL.E



Terminal significance

Encoder incremental

+UB	Voltage supply
0V (⊥)	Ground
⊥	Earth ground (housing)
K1	Output signal channel 1
K1	Output signal channel 1 inverted
K2	Output signal channel 2 (offset by 90° to channel 1)
K2	Output signal channel 2 inverted
K0	Zero pulse (reference signal)
K0	Zero pulse inverted

Terminal significance

Speed switch DSL.R

R1*	Transistor switching output 1, individually adjustable switching speed, High (12 V), Low (0 V), max. 20 mA
R2*	Transistor switching output 2, individually adjustable switching speed, High (12 V), Low (0 V), max. 20 mA
R3*	Transistor switching output 3, individually adjustable switching speed, High (12 V), Low (0 V), max. 20 mA
GND*	Ground connection
RS485	Interface for PC or Laptop (adapter required). Programming of the DSL via the included software.

* Connection to relay module, for example DS 93 R (accessory)

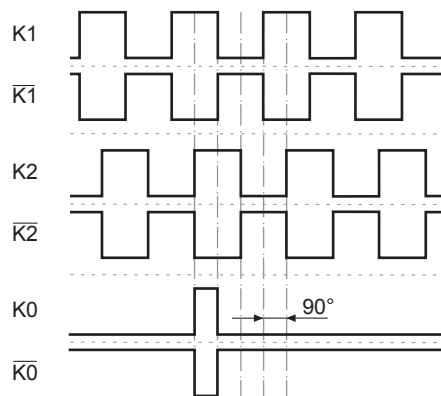
Speed switch DSL.E

R1 (A+B)	Electronic relay output 1, individually adjustable switching speed, 5...230 V AC/DC
R2 (A+B)	Electronic relay output 2, individually adjustable switching speed, 5...230 V AC/DC
C1 (A+B)	Electronic relay output as a control output, 5...250 mA
RS485	Interface for PC or Laptop (adapter required). Programming of the DSL via the included software.

Output signals

HTL/TTL

At positive rotating direction (see dimension)

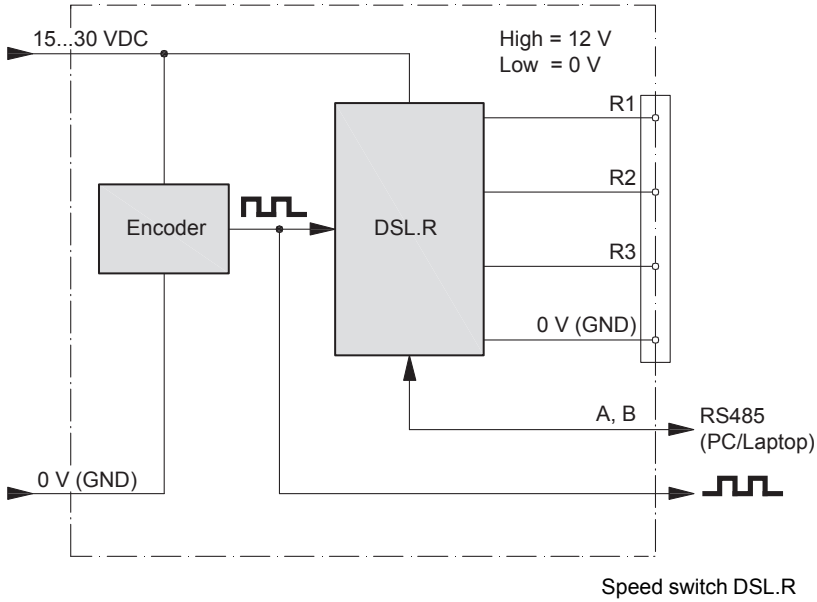


POG 10 + DSL

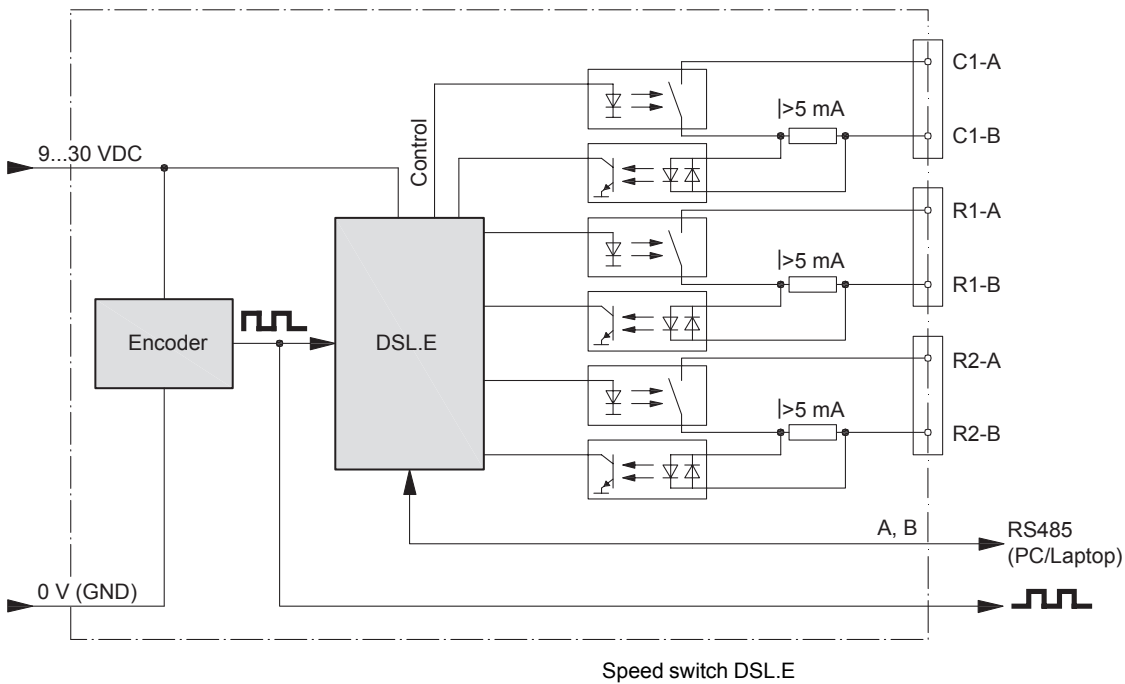
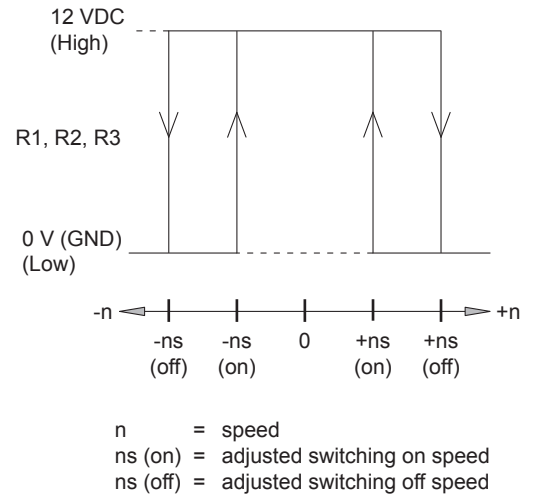
Encoder with integrated programmable, digital speed switch

Solid shaft with EURO flange B10 and/or housing foot B3 / 512...2500 pulses per revolution

Block circuit diagram



Switching characteristics

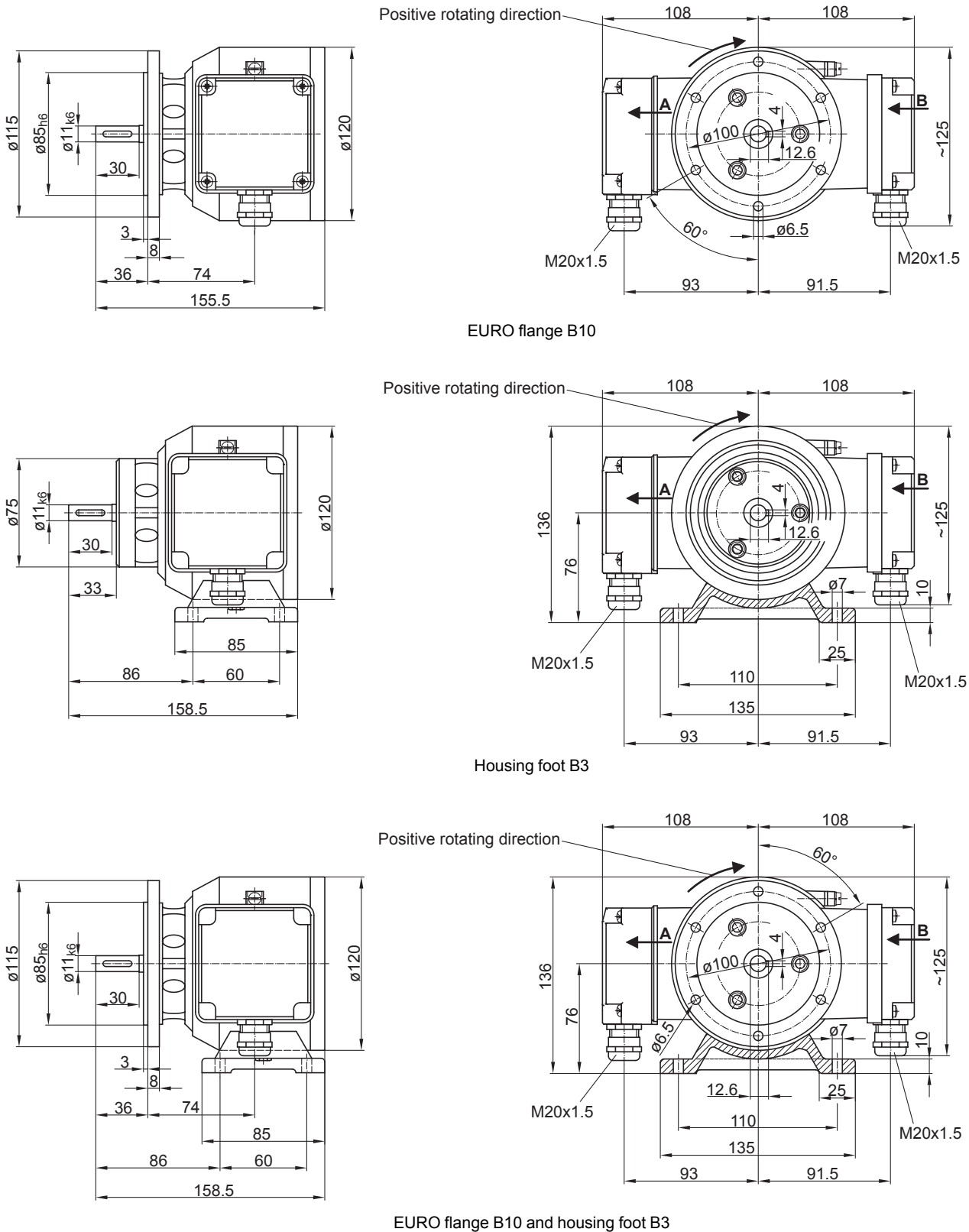


POG 10 + DSL

Encoder with integrated programmable, digital speed switch

Solid shaft with EURO flange B10 and/or housing foot B3 / 512...2500 pulses per revolution

Dimensions



POG 10 + DSL

Encoder with integrated programmable, digital speed switch

Solid shaft with EURO flange B10 and/or housing foot B3 / 512...2500 pulses per revolution

Ordering reference

	POG10	DN	####	#	#####	#####
Product	POG10					
Incremental encoder + Speed switch						
Output signals						
K1, K2, K0		DN				
Pulse number						
512			512			
1024			1024			
2048			2048			
2500			2500			
Incremental output						
Output circuit HTL with inverted signals				I		
Output circuit TTL with inverted signals				R		
Mounting type						
EURO flange B10						
Housing foot B3					B3	
Housing foot B3 + EURO flange B10					B3/B10	
Version speed switch						
2 outputs, speed control and 1 control output						+ DSL.E
3 outputs, speed control						+ DSL.R

Accessories

Mounting accessories

- Spring disk coupling K 35 (shaft ø6...12 mm)
- Spring disk coupling K 50 (shaft ø11...16 mm)
- Spring disk coupling K 60 (shaft ø11...22 mm)