

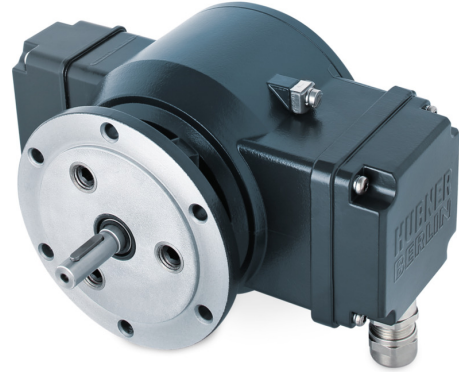
POG 10 + DSL

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 ° ±20°
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)	∅115 mm
Shaft type	∅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 gcm ²
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)

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Terminal assignment

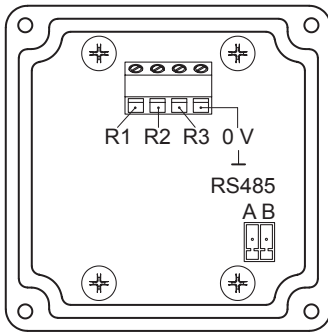
View A (see dimension)

Connecting terminal terminal box encoder



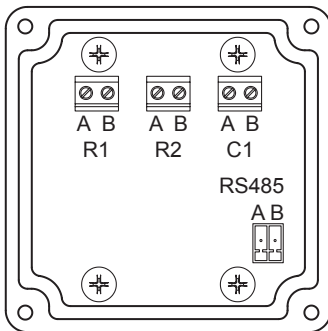
View B (see dimension)

Connecting terminal speed switch DSL.R



View B (see dimension)

Connecting terminal speed switch DSL.E



Terminal significance

Encoder incremental

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

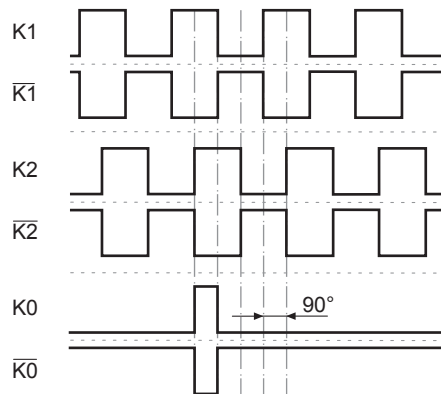
Speed switch DSL.E

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)

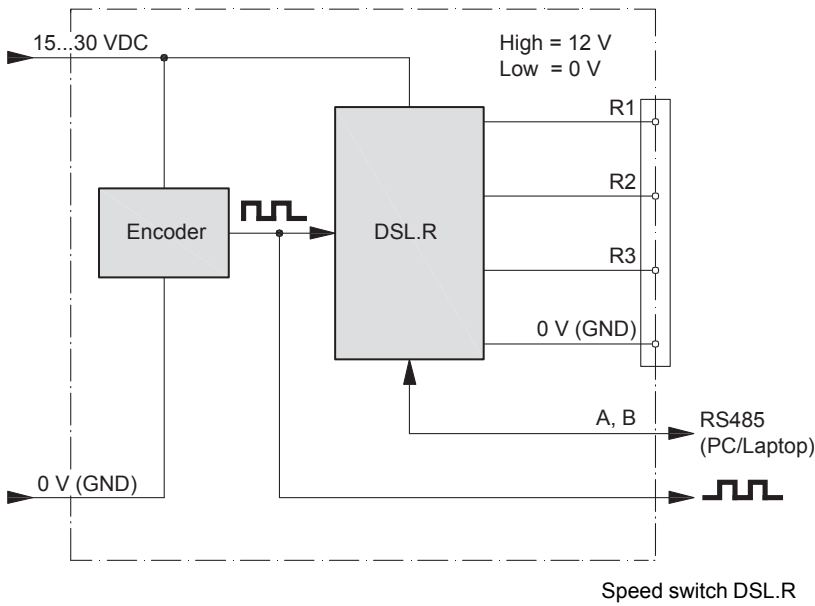


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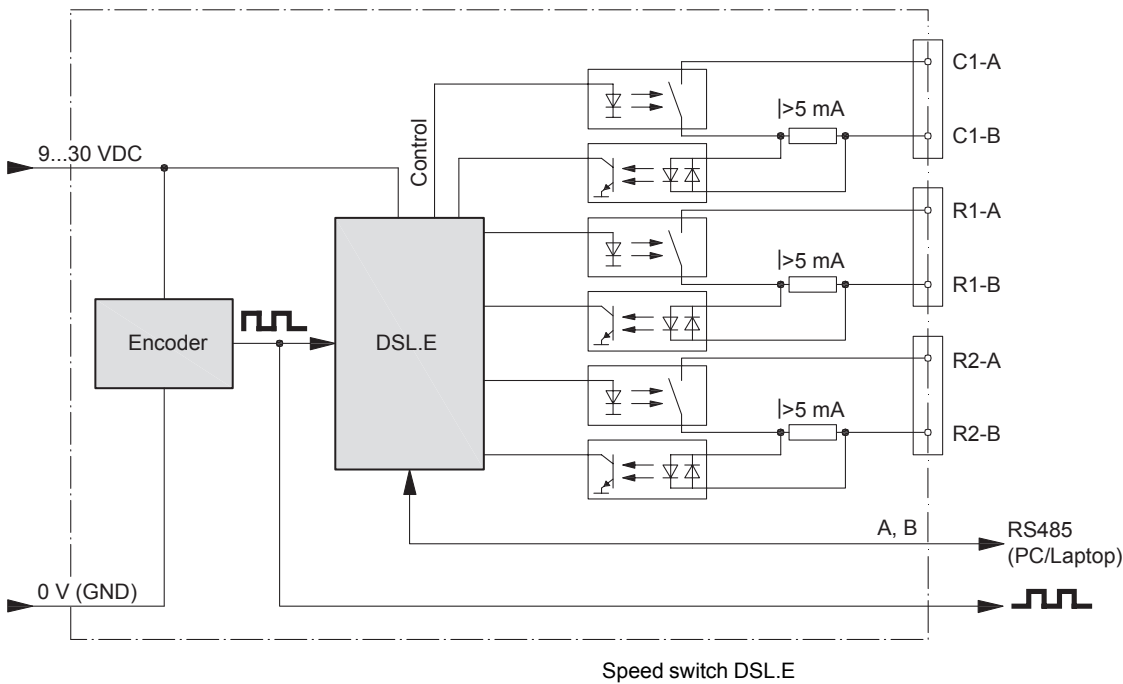
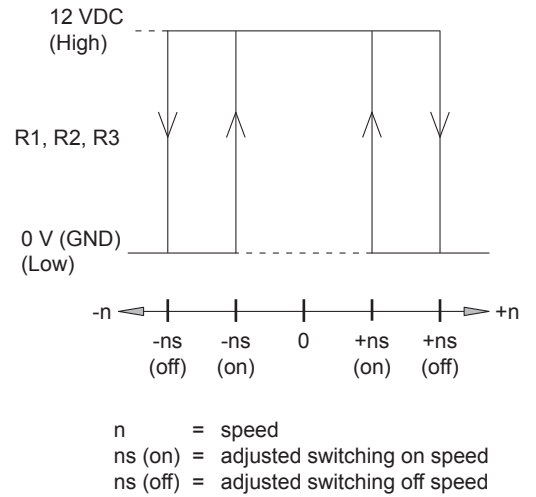
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Block circuit diagram



Switching characteristics

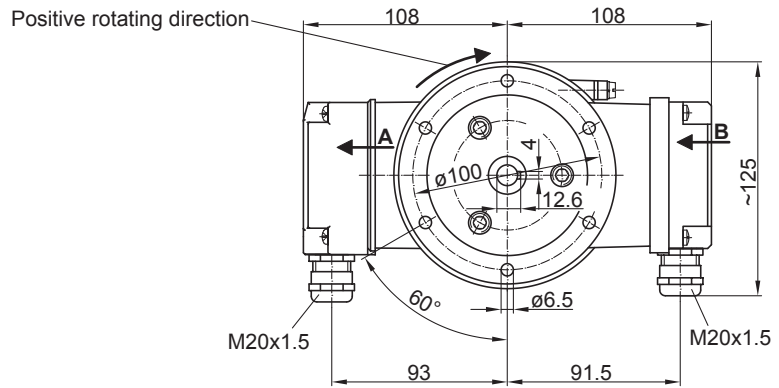
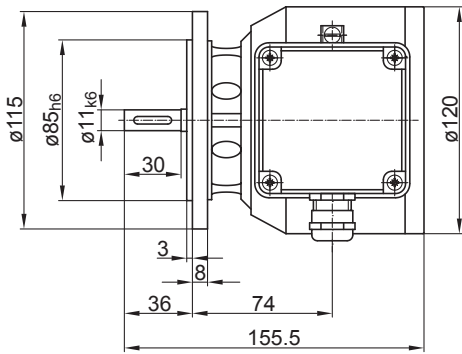


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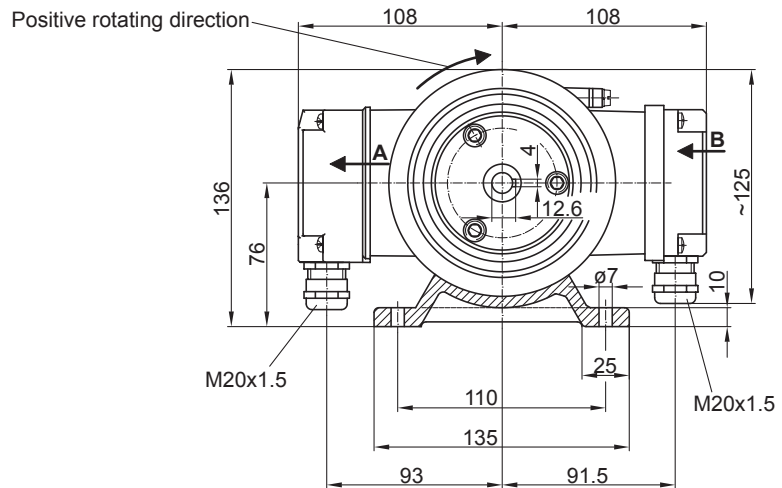
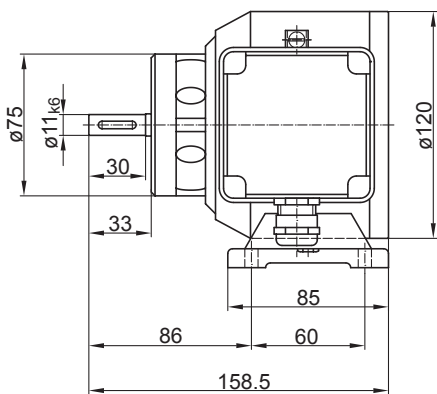
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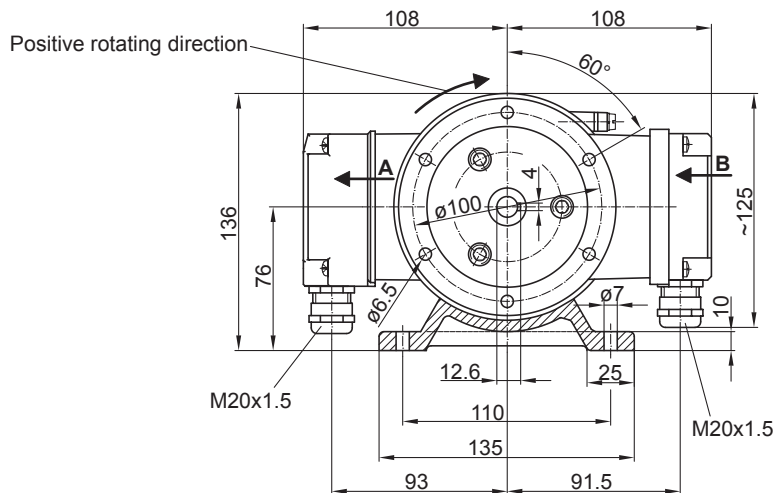
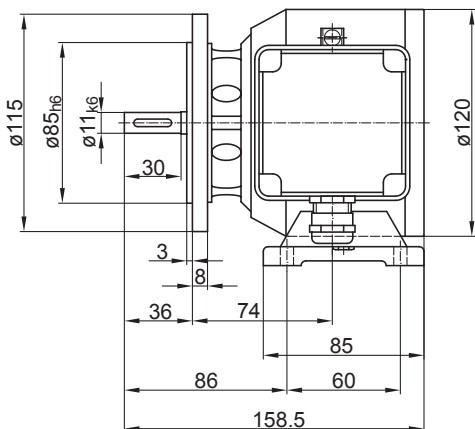
Dimensions



EURO flange B10



Housing foot B3



EURO flange B10 and housing foot B3

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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 \varnothing 6...12 mm)
- Spring disk coupling K 50 (shaft \varnothing 11...16 mm)
- Spring disk coupling K 60 (shaft \varnothing 11...22 mm)