

Combination

Encoder with integrated programmable, digital speed switch

Blind hollow shaft $\varnothing 16$ mm

512...2500 pulses per revolution

HOG 10 + DSL



HOG 10 + DSL

Technical data - electrical ratings

Consumption w/o load ≤ 200 mA

HOG 10 + DSL.E

Voltage supply 9...30 VDC

HOG 10 + DSL.R

Voltage supply 15...30 VDC

Technical data - electrical ratings (encoder)

Pulses per revolution 512...2500

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

Scan ratio 40...60 %

Reference signal Zero pulse, width 90°

Output frequency ≤ 120 kHz

Output signals K1, K2, K0 + inverted

Output stages HTL
TTL/RS422

Sensing method Optical

Technical data - electrical ratings (speed switches)

Interface RS485

Switching accuracy ± 2 % (or Digit)

Switching delay time ≤ 40 ms

HOG 10 + DSL.E

Switching outputs 2 outputs, speed control
1 control output

Output switching capacity 5...230 VAC/VDC; 5...250 mA

HOG 10 + DSL.R

Switching outputs 3 outputs, speed control

Output switching capacity 12 VDC; ≤ 40 mA

Features

- Freely programmable on and off switching speed
- Programming via included software (RS485 interface)
- Logic level HTL or TTL
- 512...2500 pulses per revolution
- Blind hollow shaft $\varnothing 16$ mm
- DSL.R: 3 outputs speed controlled (independent transistor outputs)
- DSL.E: 2 outputs speed controlled and 1 control output

Optional

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

Technical data - mechanical design

Size (flange) $\varnothing 105$ mm

Shaft type $\varnothing 16$ mm (blind hollow shaft)

Admitted shaft load ≤ 450 N axial
 ≤ 600 N radial

Protection DIN 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 340 gcm²

Materials Housing: aluminium
Shaft: stainless steel

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

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

Explosion protection II 3 G Ex nA IIC T4 Gc (gas)
II 3 D Ex tc IIIC T135°C Dc (dust)

Connection Terminal box

Weight approx. 3.1 kg

Interference immunity EN 61000-6-2

Emitted interference EN 61000-6-3

Approval CE

Combination

Encoder with integrated programmable, digital speed switch

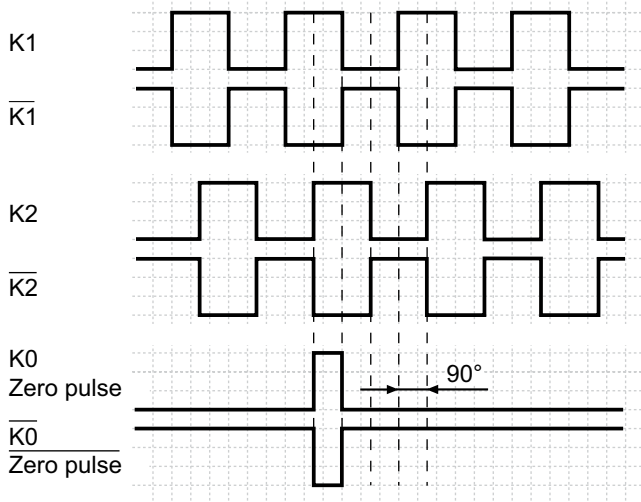
Blind hollow shaft $\varnothing 16$ mm

512...2500 pulses per revolution

HOG 10 + DSL

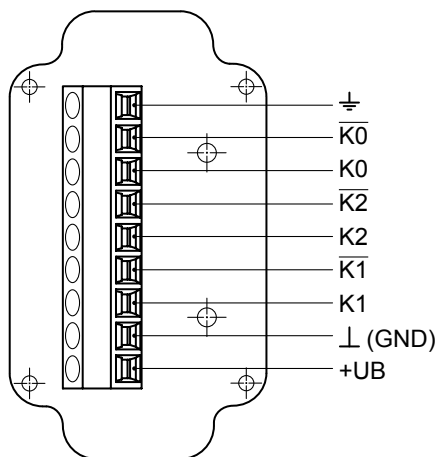
Output signals

At positive rotating direction

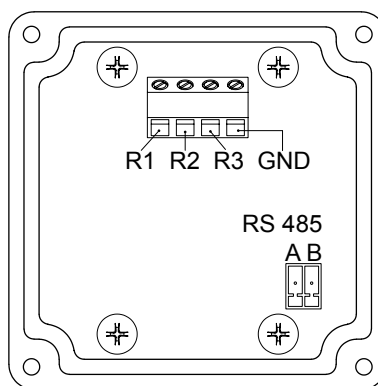


Terminal assignment

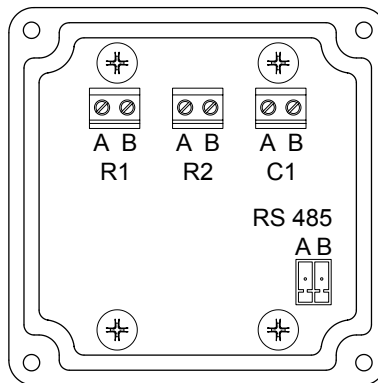
View A - Connecting terminal in terminal box



View B - Connecting terminal speed switch Version DSL.R



View B - Connecting terminal speed switch Version DSL.E



Terminal significance

Speed switch version 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
RS 485	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 version 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
RS 485	Interface for PC or Laptop (adapter required). Programming of the DSL via the included software.

Combination

Encoder with integrated programmable, digital speed switch

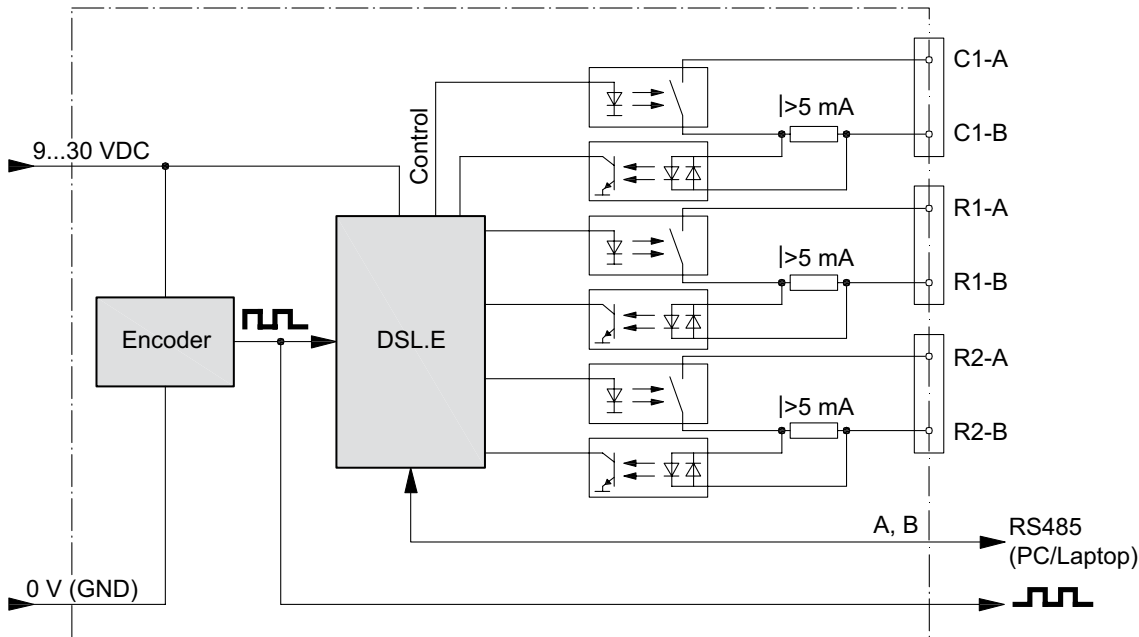
Blind hollow shaft $\varnothing 16$ mm

512...2500 pulses per revolution

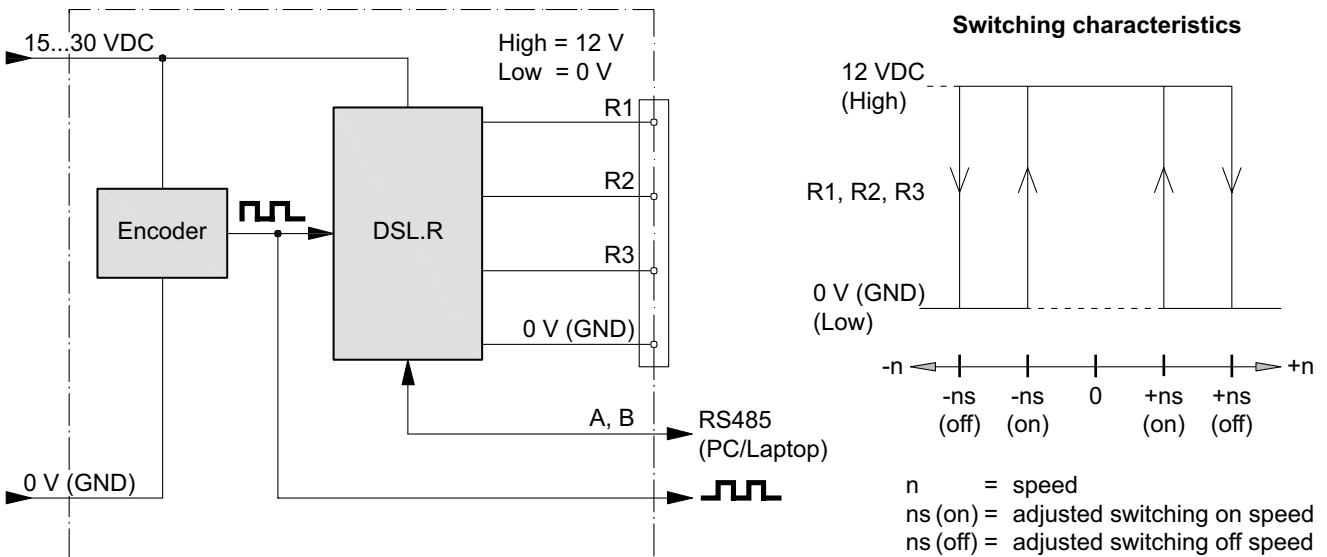
HOG 10 + DSL

Block circuit diagram

Version with DSL.E



Version with DSL.R



Combination

Encoder with integrated programmable, digital speed switch

Blind hollow shaft $\varnothing 16$ mm

512...2500 pulses per revolution

HOG 10 + DSL

Dimensions

