

Incremental encoders

Blind hollow shaft $\varnothing 16$ mm or cone shaft $\varnothing 17$ mm (1:10)

1024...10000 pulses per revolution

HOG 100



HOG 100 with radial terminal box

Features

- High resolution
- Blind hollow shaft $\varnothing 16$ mm or cone shaft $\varnothing 17$ mm (1:10)
- Optical sensing method
- Output stage HTL or TTL
- Output stage with regulator 9...26 VDC
- Hybrid bearing for extended lifetime
- Big terminal box, turn by 180° or axial terminal cover

Technical data - electrical ratings

Voltage supply	9...30 VDC 5 VDC ± 5 % 9...26 VDC
Consumption w/o load	≤ 100 mA
Pulses per revolution	1024...10000
Phase shift	$90^\circ \pm 8^\circ$
Scan ratio	44...56 %
Reference signal	Zero pulse, width 90°
Sensing method	Optical
Output frequency	≤ 250 kHz
Output signals	K1, K2, K0 + inverted
Output stages	HTL TTL/RS422
Interference immunity	EN 61000-6-2
Emitted interference	EN 61000-6-3
Approvals	CE, UL approval / E256710

Technical data - mechanical design

Size (flange)	$\varnothing 105$ mm
Shaft type	$\varnothing 16$ mm (blind hollow shaft) $\varnothing 17$ mm (cone shaft 1:10)
Shaft loading	≤ 450 N axial ≤ 600 N radial
Protection DIN EN 60529	IP 66
Operating speed	≤ 10000 rpm (mechanical)
Operating torque typ.	6 Ncm
Rotor moment of inertia	320 gcm ²
Materials	Housing: aluminium die-cast Shaft: stainless steel
Operating temperature	$-30...+85$ °C
Resistance	IEC 60068-2-6 Vibration 20 g, 10-2000 Hz IEC 60068-2-27 Shock 300 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 Terminal cover
Weight approx.	1.5 kg

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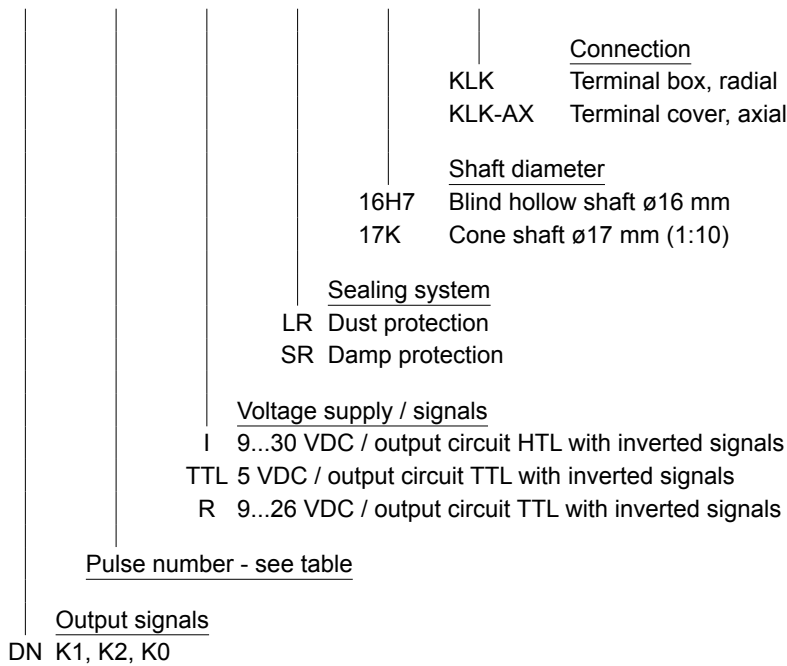
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Part number

Incremental encoder

HOG 100 DN



Pulse number

1024	2048	2500	4096	10000
2000	2160	3072	5000	

Other pulse numbers on request.

Accessories

Connectors and cables

HEK 8 Sensor cable for encoders

Mounting accessories

DMS 6 Torque arm size M6

Diagnostic accessories

HENQ 1100 Analyzer for encoders

Incremental encoders

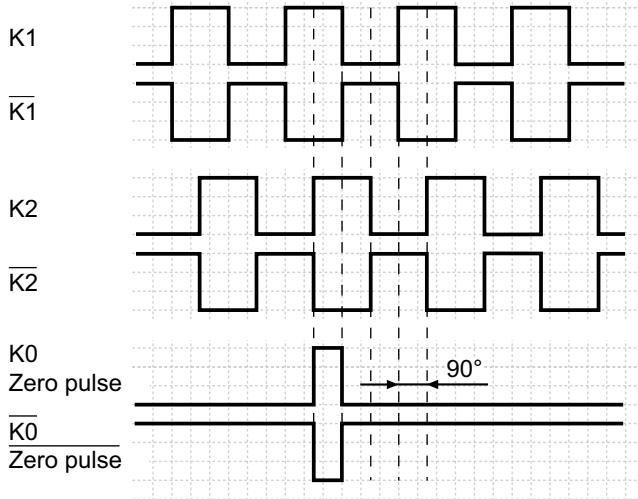
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Output signals

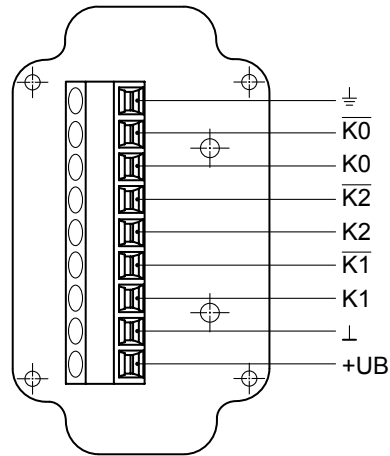
At positive rotating direction



Terminal assignment

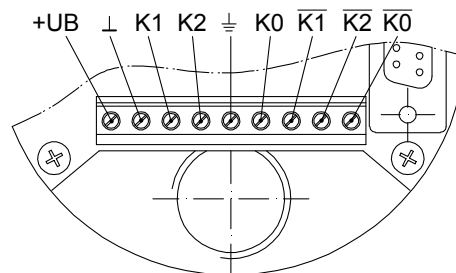
View A

Connecting terminal terminal box, radial



View B

Connecting terminal terminal cover, axial



Terminal significance

+UB	Voltage supply (for the encoder)
\perp ; \downarrow ; GND; 0V	Ground (for the signals)
\perp ; \nearrow	Earth ground (chassis)
K1; A; A+	Output signal channel 1
$\overline{K1}$; \overline{A} ; A-	Output signal channel 1 inverted
K2; B; B+	Output signal channel 2 (offset by 90° to channel 1)
$\overline{K2}$; \overline{B} ; B-	Output signal channel 2 (offset by 90° to channel 1) inverted
K0; C; R; R+	Zero pulse (reference signal)
$\overline{K0}$; \overline{C} ; \overline{R} ; R-	Zero pulse (reference signal) inverted

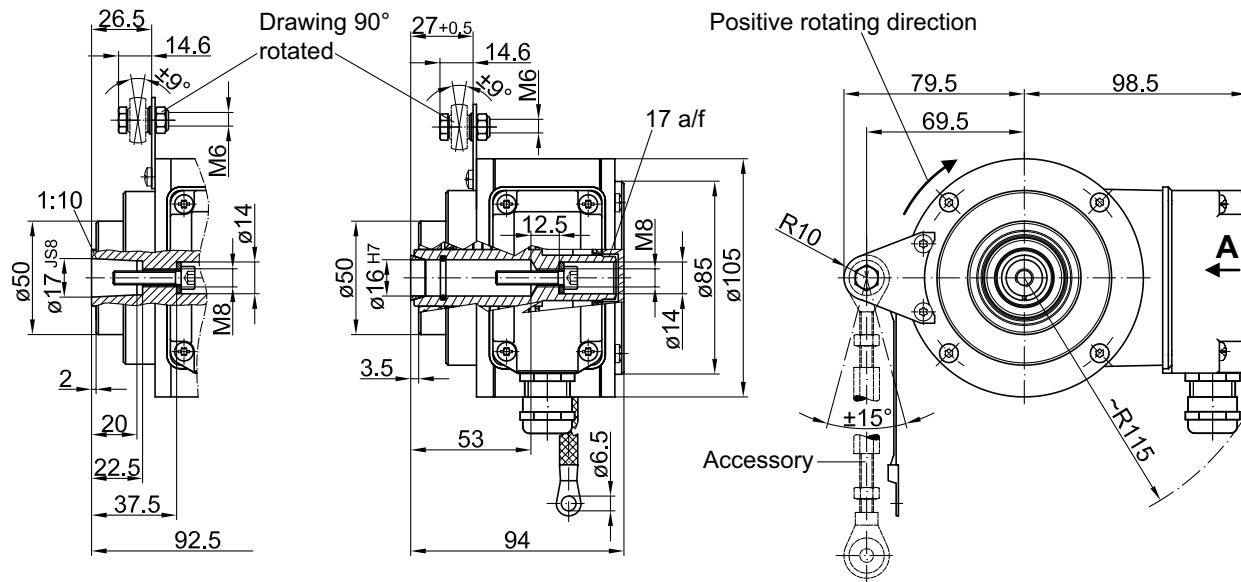
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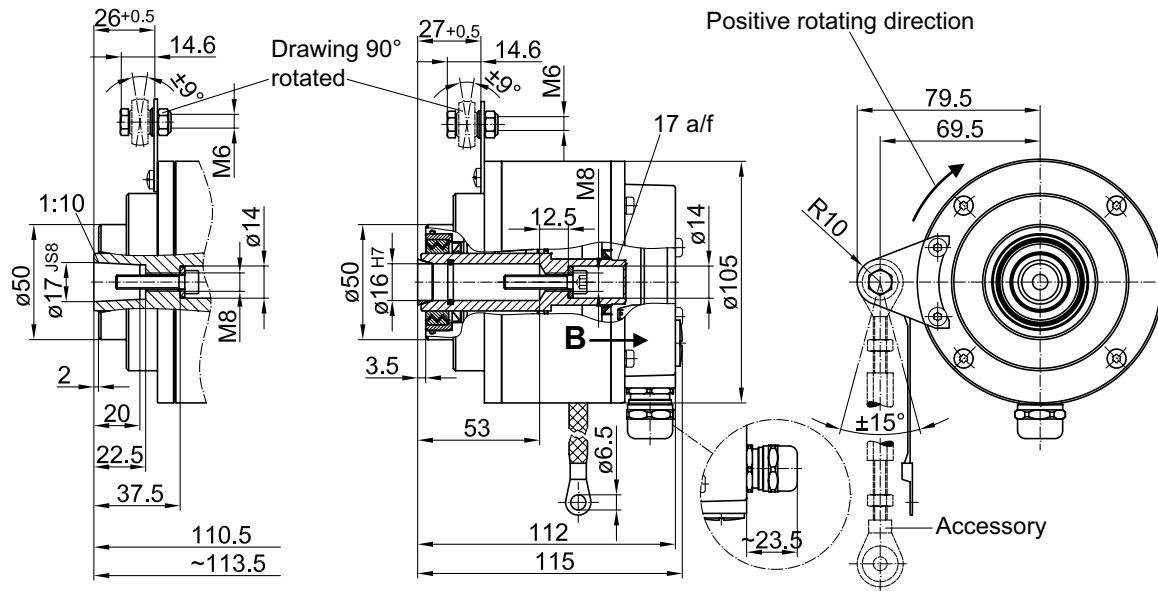
HOG 100

Dimensions

HOG 100 - Version with radial terminal box



HOG 100 - Version with axial terminal cover



Subject to modification in technic and design. Errors and omissions excepted.