Incremental encoders

Blind hollow shaft ø16 mm or cone shaft ø17 mm (1:10)

1024…10000 pulses per revolution

HOG 100

HOG 100 with radial terminal box

Features

- **High resolution**
- **Blind hollow shaft ø16 mm or cone shaft ø17 mm (1:10)**
- **Optical sensing method**
- **Output stage HTL or TTL**
- **Output stage with regulator 9...26 VDC**
- **Hybrid bearing for extended service life**
- **Large 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° ±8°
Duty cycle	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)	ø105 mm
Shaft type	ø16 mm (blind hollow shaft) ø17 mm (cone shaft 1:10)
Admitted shaft load	≤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 gcm²
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
Corrosion protection	IEC 60068-2-52 Salt mist for ambient conditions C4 according to ISO 12944-2
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

HOG 100

Part number

Incremental encoder

HOG100 **DN** | | | | | | | | | | |

Connection
- KLK Terminal box, radial
- KLK-AX Terminal cover, axial

Shaft diameter
- 16H7 Blind hollow shaft ø16 mm
- 17K Cone shaft ø17 mm (1:10)

Sealing system
- LR Dust protection
- SR Damp protection

Voltage supply / signals
- I 9...30 VDC / output stage HTL with inverted signals
- TTL 5 VDC / output stage TTL with inverted signals
- R 9...26 VDC / output stage TTL with inverted signals

Pulse number - see table

Output signals
- DN K1, K2, K0

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	
11043628	Torque arm M6, length 67-70 mm
11004078	Torque arm M6, length 120-130 mm (shortenable ≥71 mm)
11002915	Torque arm M6, length 425-460 mm (shortenable ≥131 mm)
11054917	Torque arm M6 insulated, length 67-70 mm
11072795	Torque arm M6 insulated, length 120-130 mm (shortenable ≥71 mm)
11082677	Torque arm M6 insulated, length 425-460 mm (shortenable ≥131 mm)
11077197	Mounting kit for torque arm size M6 and earthing strap
11077087	Mounting and dismounting set
Diagnostic accessories	
11075858	Analyzer for encoders HENQ 1100

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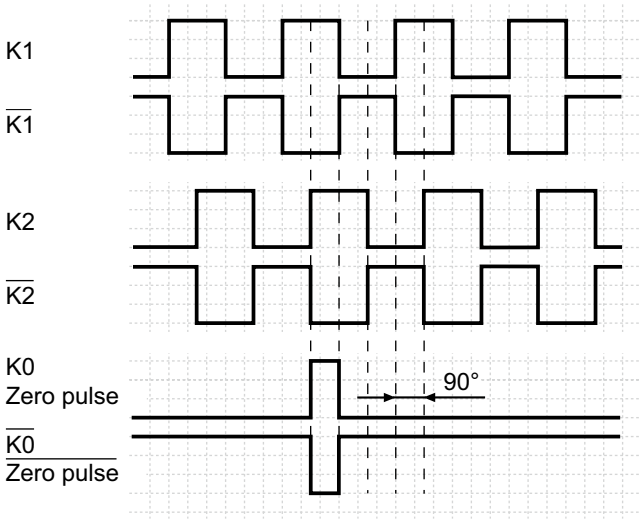
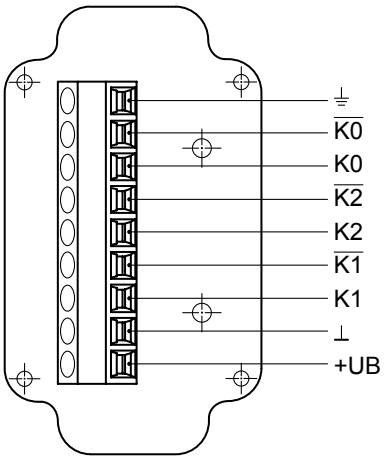
Output signals

At positive rotating direction

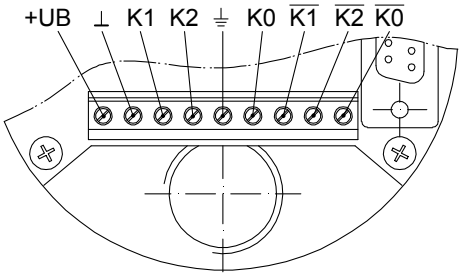


Terminal assignment

View A
Connecting terminal terminal box, radial



View B
Connecting terminal terminal cover, axial



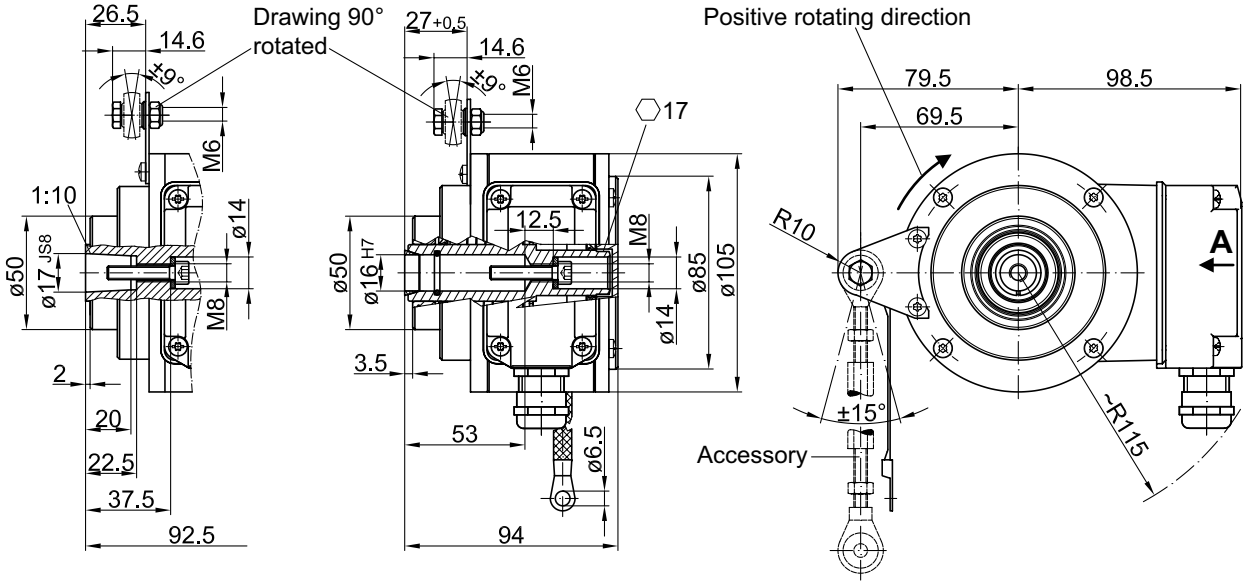
Terminal significance

+UB	Voltage supply (for the device)
⊥; ⏚; GND; 0 V	Ground (for the signals)
⏚; ⏚	Earth ground (housing)
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
dnu	Do not use

HOG 100

Dimensions

Version with radial terminal box



Version with axial terminal cover