

# 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 service life
- Large terminal box, turn by 180° or axial terminal cover

### Technical data - electrical ratings

Voltage supply	9...30 VDC 5 VDC $\pm 5$ % 9...26 VDC
Consumption w/o load	$\leq 100$ mA
Pulses per revolution	1024...10000
Phase shift	90° $\pm 8$ °
Duty cycle	44...56 %
Reference signal	Zero pulse, width 90°
Sensing method	Optical
Output frequency	$\leq 250$ 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)
Admitted shaft load	$\leq 450$ N axial $\leq 600$ N radial
Protection DIN EN 60529	IP 66
Operating speed	$\leq 10000$ rpm (mechanical)
Operating torque typ.	6 Ncm
Rotor moment of inertia	320 gcm <sup>2</sup>
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



# Incremental encoders

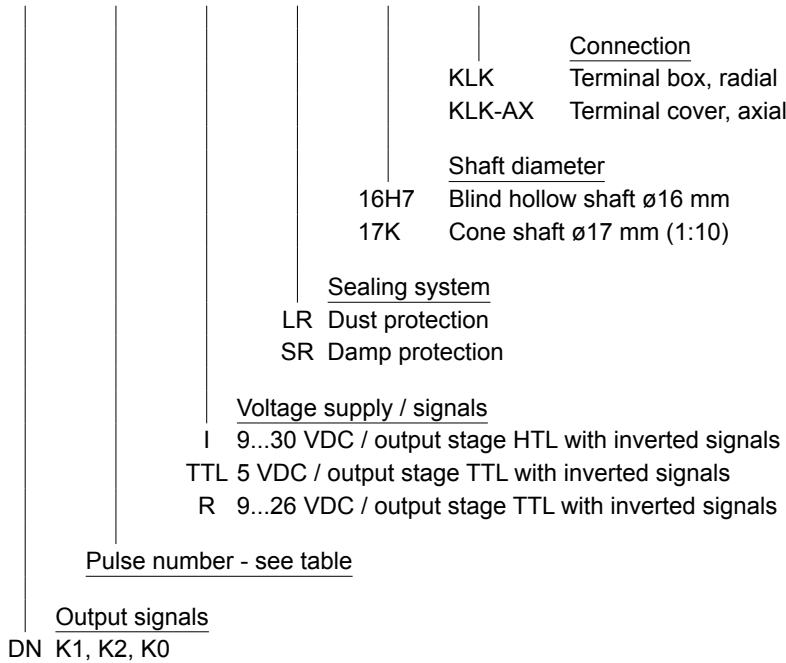
Blind hollow shaft  $\varnothing 16$  mm or cone shaft  $\varnothing 17$  mm (1:10)  
1024...10000 pulses per revolution

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**Part number**

**Incremental encoder**

HOG100 **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**

11043628	Torque arm M6, length 67-70 mm
11004078	Torque arm M6, length 120-130 mm (shortenable $\geq 71$ mm)
11002915	Torque arm M6, length 425-460 mm (shortenable $\geq 131$ mm)
11054917	Torque arm M6 insulated, length 67-70 mm
11072795	Torque arm M6 insulated, length 120-130 mm (shortenable $\geq 71$ mm)
11082677	Torque arm M6 insulated, length 425-460 mm (shortenable $\geq 131$ 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

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

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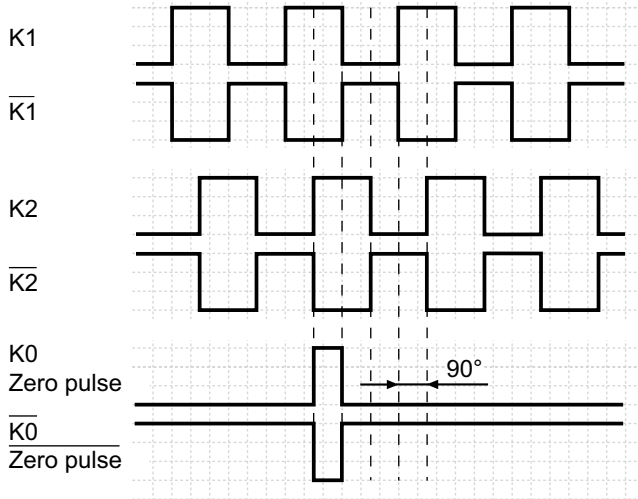
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### Output signals

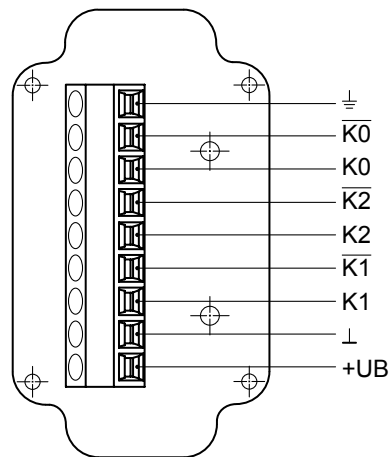
At positive rotating direction



### Terminal assignment

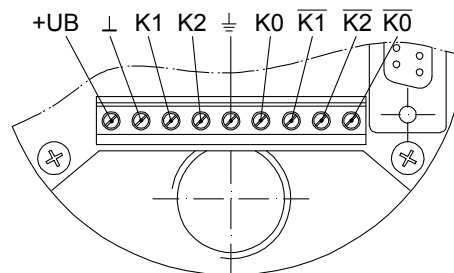
#### View A

Connecting terminal terminal box, radial



#### View B

Connecting terminal terminal cover, axial



### Terminal significance

+UB	Voltage supply (for the device)
$\perp$ ; $\downarrow$ ; GND; 0 V	Ground (for the signals)
$\perp$ ; $\nearrow$	Earth ground (housing)
K1; A; A+	Output signal channel 1
$\bar{K}1$ ; $\bar{A}$ ; A-	Output signal channel 1 inverted
K2; B; B+	Output signal channel 2 (offset by 90° to channel 1)
$\bar{K}2$ ; $\bar{B}$ ; B-	Output signal channel 2 (offset by 90° to channel 1) inverted
K0; C; R; R+	Zero pulse (reference signal)
$\bar{K}0$ ; $\bar{C}$ ; $\bar{R}$ ; R-	Zero pulse (reference signal) inverted
dnu	Do not use



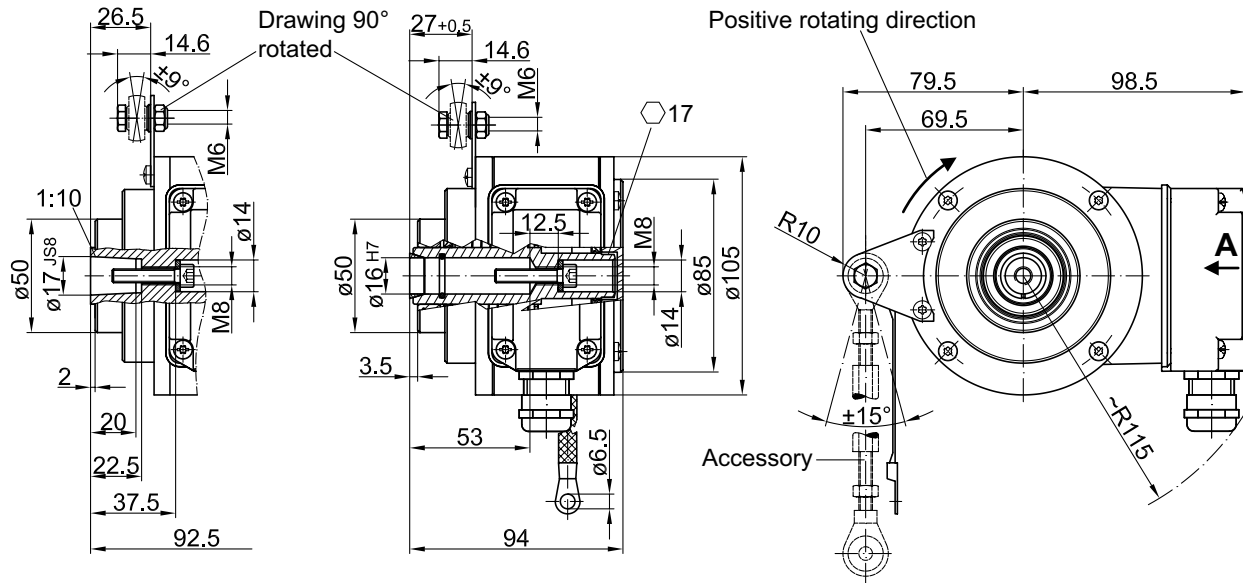
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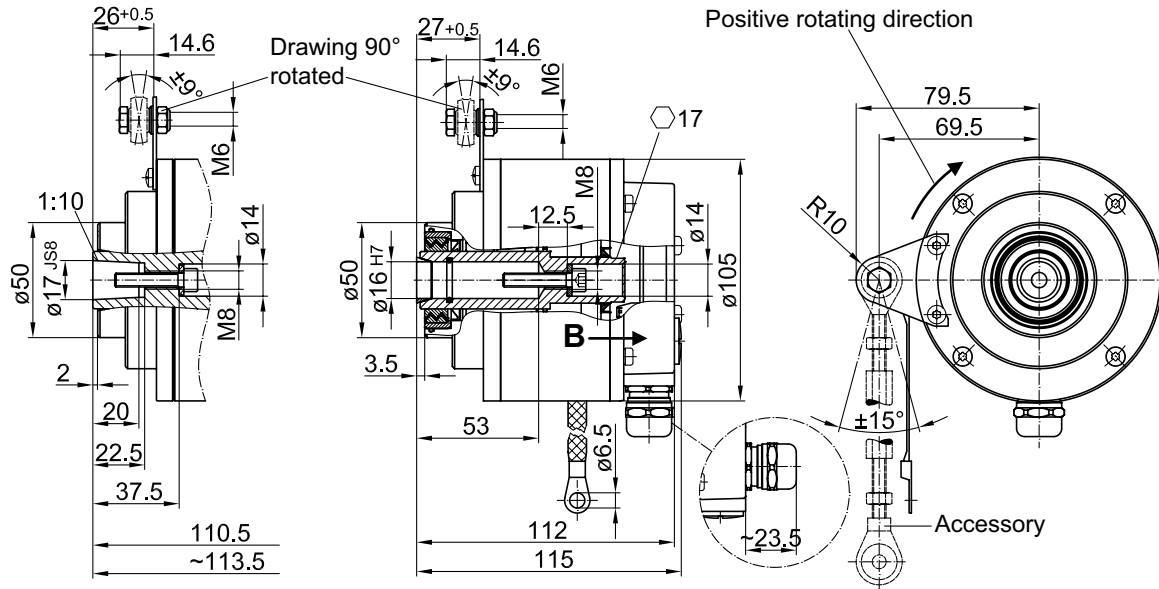
HOG 100

## Dimensions

### Version with radial terminal box



### Version with axial terminal cover



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