

# HOGS 100

Blind hollow shaft  $\varnothing 16$  mm or cone shaft  $\varnothing 17$  mm (1:10)  
720...5000 sinewave cycles per turn

## Overview

- Blind hollow shaft  $\varnothing 16$  mm or cone shaft  $\varnothing 17$  mm (1:10)
- Up to 5000 sinewaves cycles per turn
- Low harmonic content (patented LowHarmonics technology)
- Top-quality SinCos output-signals
- Protection against inductive shaft current
- Large terminal box, turn by 180° or axial terminal cover



## Technical data

### Technical data - electrical ratings

Voltage supply	5 VDC $\pm 10$ % 9...30 VDC
Consumption w/o load	$\leq 90$ mA
Sinewave cycles per revolution	720 ... 5000
Phase shift	90°
Reference signal	Zero pulse, width 90°
Sensing method	Optical
Output signals	K1, K2, K0 + inverted
Output stages	SinCos 1 Vpp
Difference of SinCos amplitude	$\leq 20$ mV
Harmonics typ.	-50 dB
DC offset	$\leq 20$ mV
Bandwidth	250 kHz (-3 dB)
Interference immunity	EN 61000-6-2
Emitted interference	EN 61000-6-3
Approval	CE UL approval / E217823

### Technical data - mechanical design

Size (flange)	$\varnothing 105$ mm
Shaft type	$\varnothing 16$ mm (blind hollow shaft) $\varnothing 17$ mm (cone shaft 1:10)

### Technical data - mechanical design

Admitted shaft load	$\leq 250$ N axial $\leq 400$ N radial
Protection EN 60529	IP 66
Operating speed	$\leq 10000$ rpm (mechanical)
Operating torque typ.	6 Ncm
Rotor moment of inertia	180 gcm <sup>2</sup>
Material	Housing: aluminium die-cast Shaft: stainless steel
Operating temperature	-20...+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 ec IIC T4 Gc (gas) II 3 D Ex tc IIIC T135°C Dc (dust) (only with option ATEX)
Connection	Terminal box Terminal cover
Weight approx.	1.8 kg

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## Terminal assignment

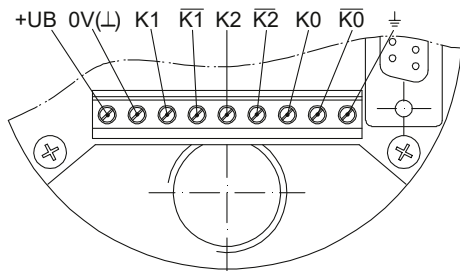
### View A (see dimension)

Connecting terminal terminal box, radial



### View B (see dimension)

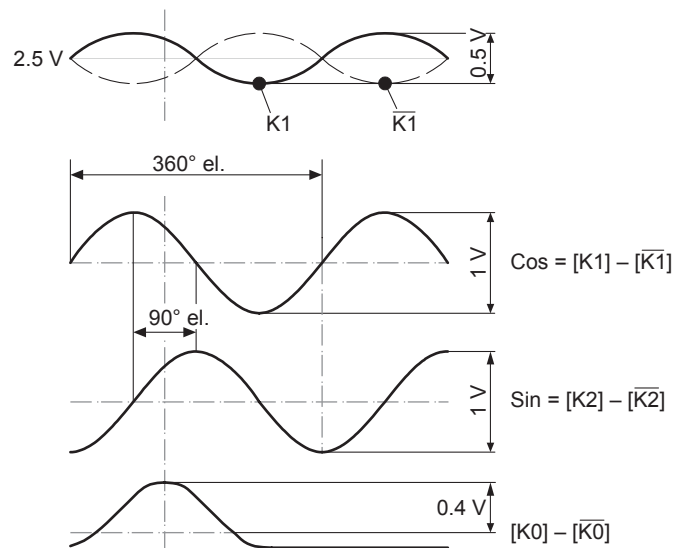
Connecting terminal terminal cover, axial



## Output signals

### SinCos

At positive rotating direction (see dimension)



## Terminal significance

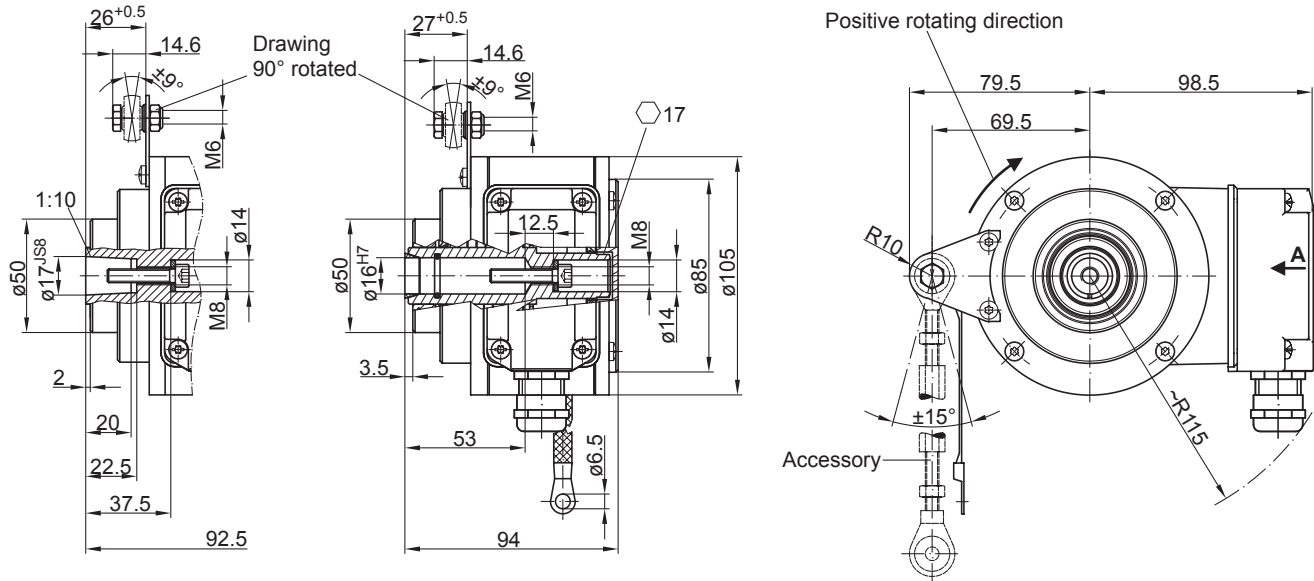
+UB	Voltage supply
0V (⊥)	Ground
⊥	Earth ground (housing)
K1	Output signal channel 1
$\overline{K1}$	Output signal channel 1 inverted
K2	Output signal channel 2 (offset by 90° to channel 1)
$\overline{K2}$	Output signal channel 2 inverted
K0	Zero pulse (reference signal)
$\overline{K0}$	Zero pulse inverted

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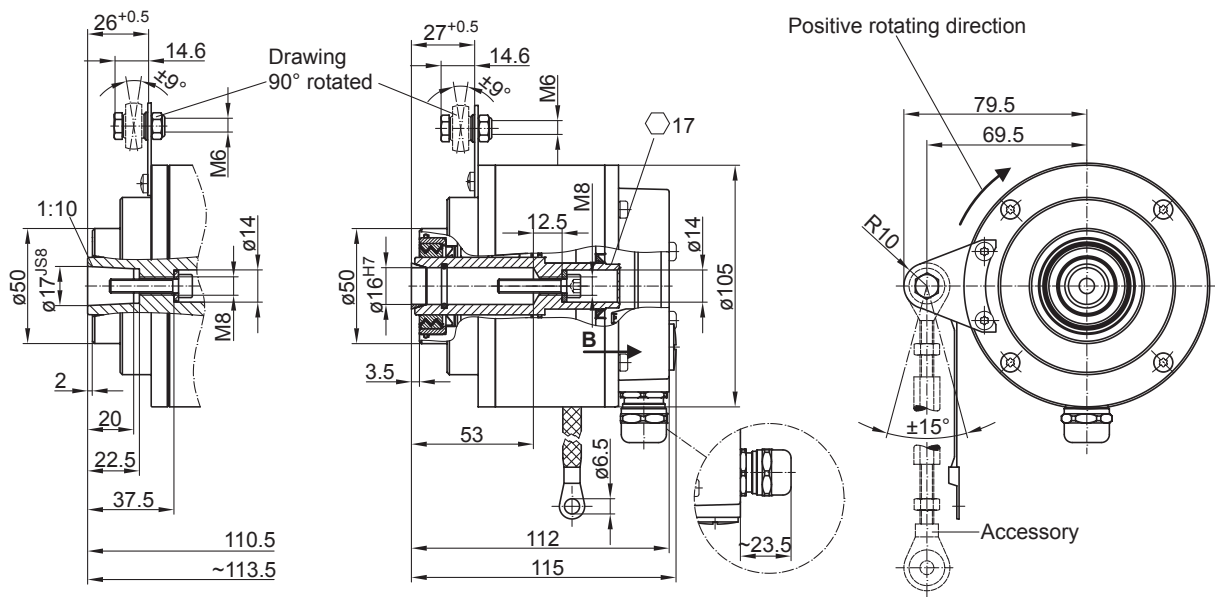
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## Dimensions



Version with radial terminal box



Version with axial terminal cover

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## Ordering reference

		HOGS100	DN	####	#	##	#####	#####
<b>Product</b>	Sine encoder	HOGS100						
<b>Output signals</b>	K1, K2, K0		DN					
<b>Sinewave cycles</b>	720			720				
	800			800				
	1024			1024				
	2048			2048				
	5000			5000				
<b>Voltage supply</b>	5 VDC					-		
	9...30 VDC					R		
<b>Sealing system</b>	Dust protection						LR	
	Damp protection						SR	
<b>Shaft diameter</b>	Blind hollow shaft $\varnothing$ 16 mm							16H7
	Cone shaft $\varnothing$ 17 mm (1:10)							17K
<b>Connection</b>	Terminal box, radial							KLK
	Terminal cover, axial (not for option M redundant)							KLK-AX

## Accessories

### Mounting accessories

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