

## HOGS 71

Blind hollow shaft  $\varnothing 12$  mm and  $\varnothing 14$  mm

1024...5000 sinewave cycles per turn

### Overview

- Blind hollow shaft  $\varnothing 12...14$  mm
- Up to 5000 sinewaves cycles per turn
- SinCos output-signals 1 Vpp
- Low harmonic content (patented LowHarmonics technology)
- Compact, robust die-cast housing
- Inside connecting terminals
- Patented torque expanding dowel for mounting on the motor ventilator cowl
- High protection IP 66



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**BERLIN**  
A Baumer Brand

### Technical data

#### Technical data - electrical ratings

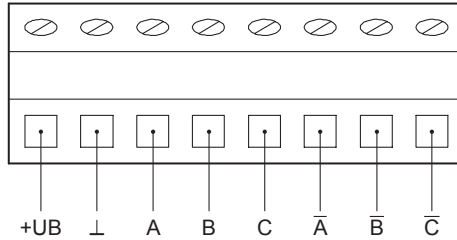
Voltage supply	5 VDC $\pm 10$ % 9...30 VDC
Consumption w/o load	$\leq 90$ mA
Sinewave cycles per revolution	1024 ... 5000
Phase shift	$90^\circ$
Reference signal	Zero pulse, width $90^\circ$
Sensing method	Optical
Output signals	K1, K2, K0 + inverted
Output stages	SinCos 1 Vpp
Difference of SinCos amplitude	$\leq 20$ 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)	$\varnothing 60$ mm
Shaft type	$\varnothing 12...14$ mm (blind hollow shaft)
Admitted shaft load	$\leq 30$ N axial $\leq 40$ N radial
Protection EN 60529	IP 66
Operating speed	$\leq 10000$ rpm (mechanical)
Operating torque typ.	1 Ncm
Rotor moment of inertia	60 gcm <sup>2</sup>
Material	Housing: aluminium die-cast Shaft: stainless steel
Operating temperature	-20...+85 °C
Resistance	IEC 60068-2-6 Vibration 10 g, 10-2000 Hz IEC 60068-2-27 Shock 300 g, 6 ms
Explosion protection	II 3 G Ex ec IIC T4 Gc X (gas) II 3 D Ex tc IIIC T85°C Dc X (dust) (only with option ATEX)
Connection	Connecting terminal
Weight approx.	350 g

## Terminal assignment

**View A** (see dimension)  
Connecting terminal HTL



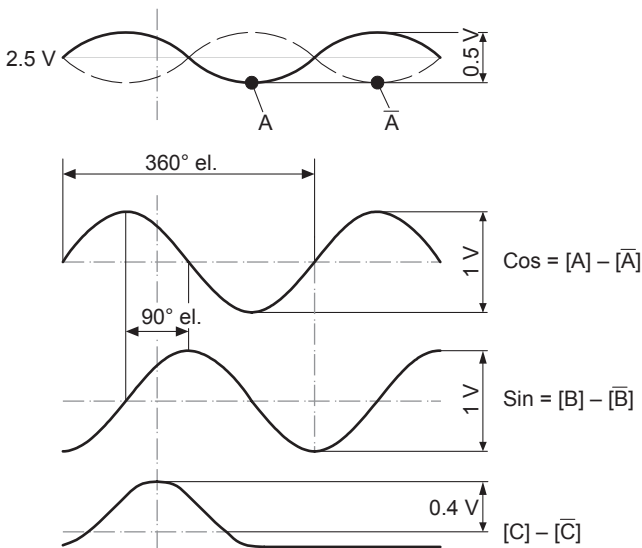
## Terminal significance

+UB	Voltage supply
⊥	Ground
A	Output signal channel 1
A̅	Output signal channel 1 inverted
B	Output signal channel 2 (offset by 90° to channel 1)
B̅	Output signal channel 2 inverted
C	Zero pulse (reference signal)
C̅	Zero pulse inverted

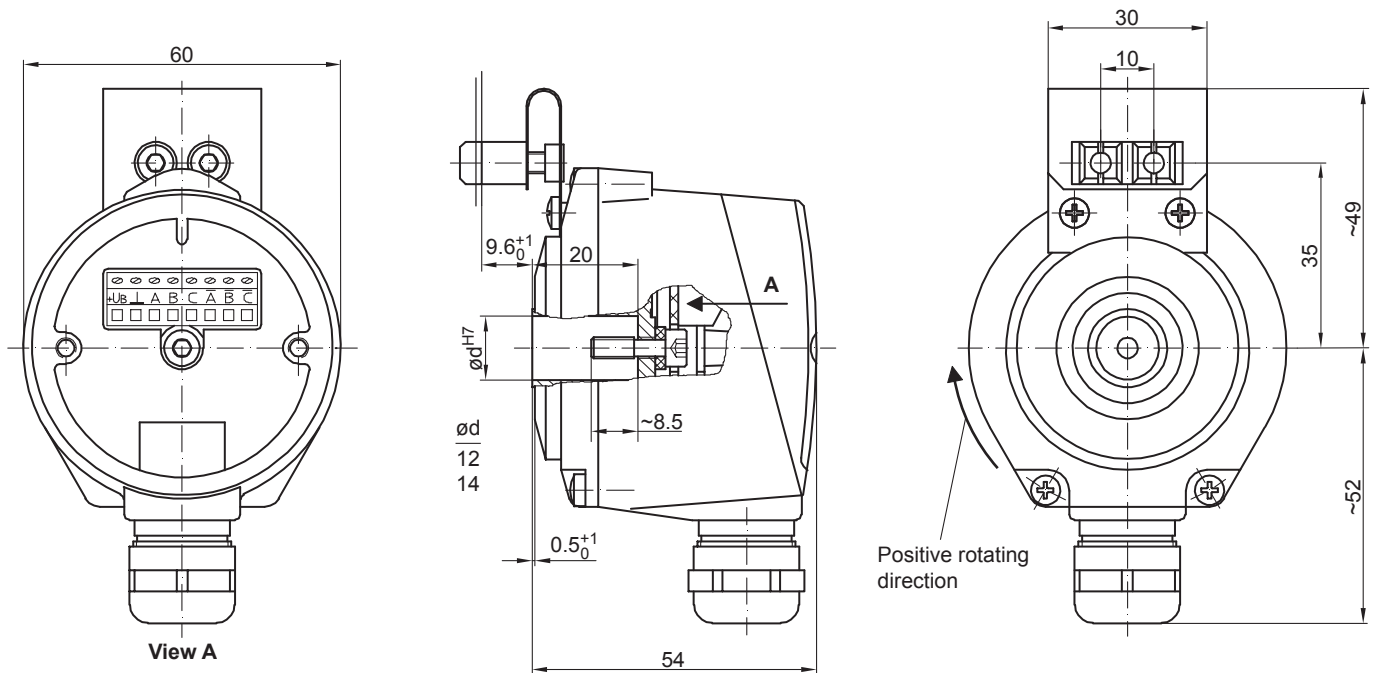
## Output signals

### SinCos

At positive rotating direction (see dimension)



## Dimensions



# HOGS 71

Blind hollow shaft ø12 mm and ø14 mm  
1024...5000 sinewave cycles per turn

## Ordering reference

	HOGS71	DN	####	#	#####
<b>Product</b>	Sine encoder	HOGS71			
<b>Output signals</b>	K1, K2, K0	DN			
<b>Sinewave cycles</b>	1024		1024		
	2048		2048		
	5000		5000		
<b>Voltage supply</b>	5 VDC			-	
	9...30 VDC			R	
<b>Shaft diameter</b>	Blind hollow shaft ø12 mm				12H7
	Through hollow shaft ø14 mm				14H7

## Accessories

### Diagnostic accessories

11075858	Analyzer for encoders HENQ 1100
11075880	Analyzer for encoders HENQ 1100 B