Baumer
Passion for Sensors

Sine encoders

HOGS 71

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

Overview

- Blind hollow shaft ø12...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

Low Harmonics®

HUBNER BERLIN
A Baumer Brand

Technical data

Technical data - electrical ratings

Voltage supply	5 VDC ±10 % 9...30 VDC
Consumption w/o load	≤90 mA
Sinewave cycles per revolution	1024 … 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	≤20 mV
Harmonics typ.	-50 dB
DC offset	≤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

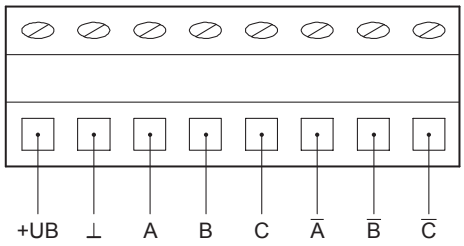
Size (flange)	ø60 mm
Shaft type	ø12...14 mm (blind hollow shaft)
Admitted shaft load	≤30 N axial ≤40 N radial
Protection EN 60529	IP 66
Operating speed	≤10000 rpm (mechanical)
Operating torque typ.	1 Ncm
Rotor moment of inertia	60 gcm²
Material	Housing: aluminium die-cast Shaft: stainless steel
Operating 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

HOGS 71

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

Terminal assignment

View A *(see dimension)*
Connecting terminal HTL

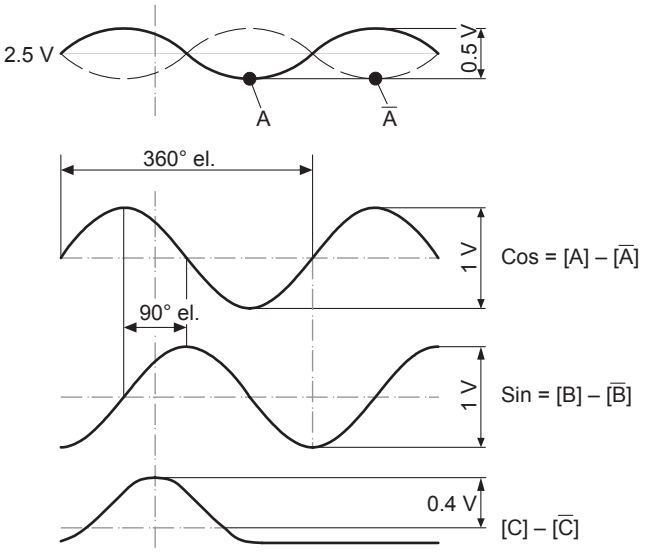


Terminal significance

+UB	Voltage supply
⊥	Ground
A	Output signal channel 1
$\overline{A}$	Output signal channel 1 inverted
B	Output signal channel 2 (offset by 90° to channel 1)
$\overline{B}$	Output signal channel 2 inverted
C	Zero pulse (reference signal)
$\overline{C}$	Zero pulse inverted

Output signals

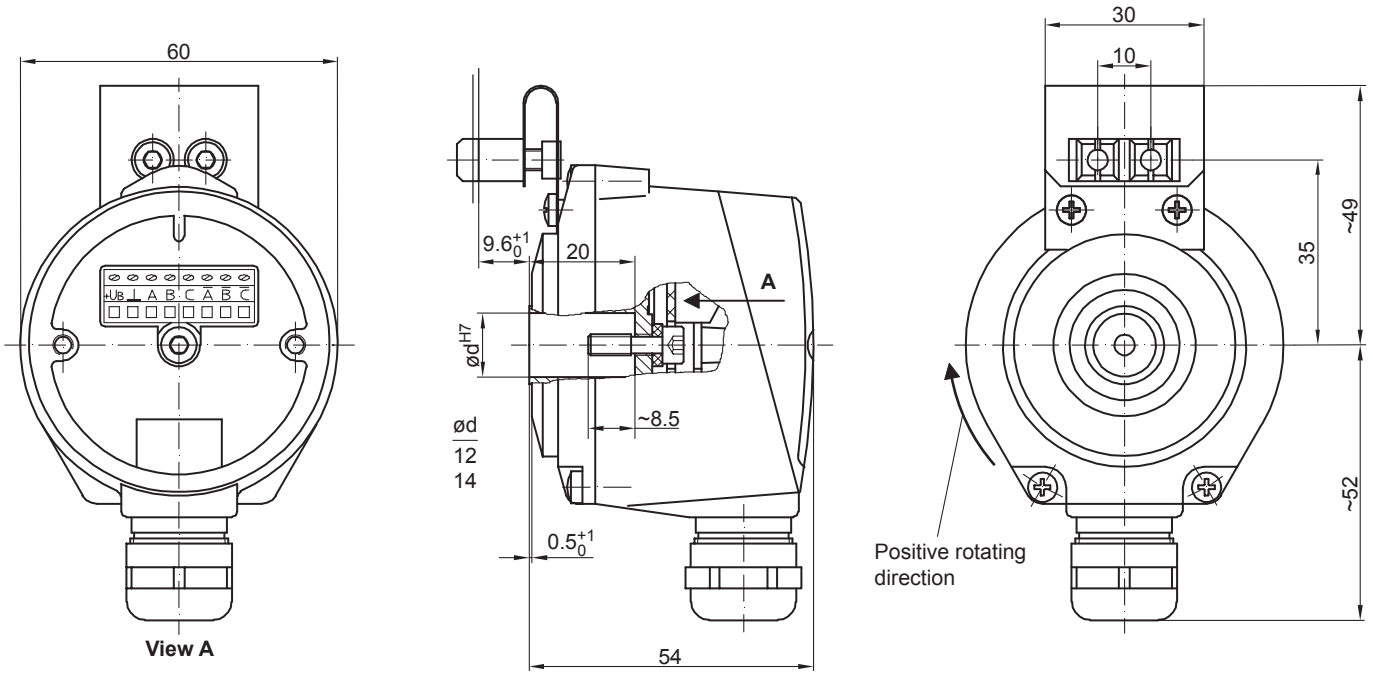
SinCos
At positive rotating direction *(see dimension)*



HOGS 71

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

Dimensions



HOGS 71

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

Ordering reference

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