

# Sine encoders

Through hollow shaft up to  $\varnothing 75$  mm

1024...5000 sinewave cycles per turn

## HOGS 14



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### Features

- Through hollow shaft up to  $\varnothing 75$  mm
- Up to 5000 sinewaves cycles per turn
- Low harmonic content (patented LowHarmonics technology)
- Top-quality SinCos output-signals

### Technical data - electrical ratings

Voltage supply	5 VDC $\pm 5$ % 9...26 VDC
Consumption w/o load	$\leq 90$ mA
Sinewave cycles per turn	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	200 kHz (-3 dB)
Interference immunity	EN 61000-6-2
Emitted interference	EN 61000-6-3
Approvals	CE, UL approval / E256710

### Technical data - mechanical design

Size (flange)	$\varnothing 158$ mm
Shaft type	$\varnothing 40...75$ mm (through hollow shaft)
Admitted shaft load	$\leq 350$ N axial $\leq 500$ N radial
Protection DIN EN 60529	IP 55
Operating speed	$\leq 6300$ rpm (mechanical)
Operating torque typ.	15 Ncm
Rotor moment of inertia	16.5 kgcm <sup>2</sup> ( $\varnothing 70$ )
Materials	Housing: aluminium Shaft: stainless steel
Operating temperature	-20...+85 °C
Resistance	IEC 60068-2-6 Vibration 10 g, 10-2000 Hz IEC 60068-2-27 Shock 100 g, 6 ms
Connection	Terminal box
Weight approx.	2.5 kg



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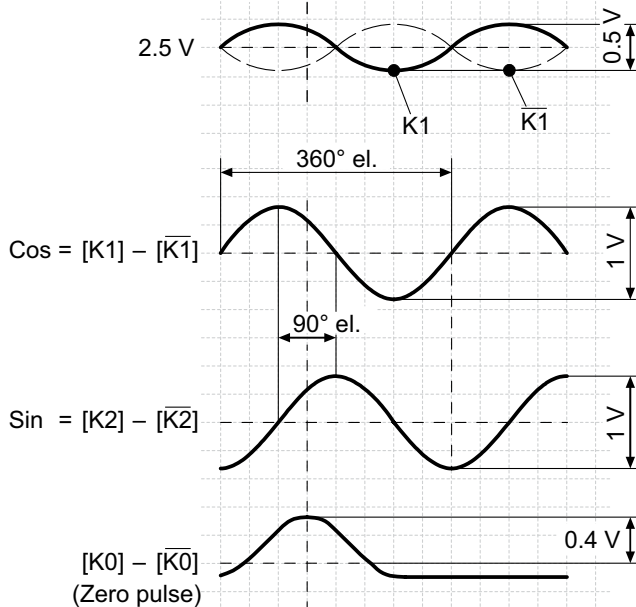
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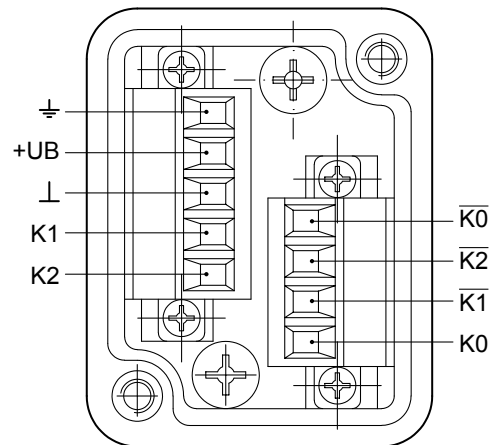
### Output signals

At positive rotating direction



### Terminal assignment

View A - Connecting terminal terminal box



### Terminal significance

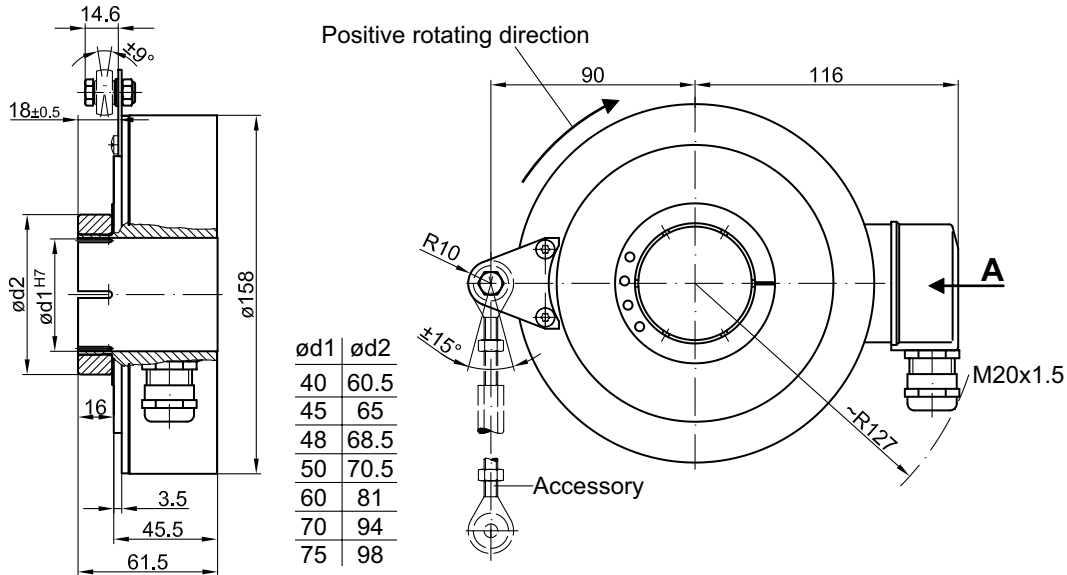
+UB	Voltage supply (for the device)
⊥; ⚡; GND; 0 V	Ground (for the signals)
⊕; ⚡	Earth ground (housing)
K1; A; A+	Output signal channel 1
$\overline{K1}$ ; $\overline{A}$ ; A-	Output signal channel 1 inverted
K2; B; B+	Output signal channel 2 (offset by 90° to channel 1)
$\overline{K2}$ ; $\overline{B}$ ; 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

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## Dimensions



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