

Sine encoders

Shaft with synchro flange, SIL2 standard

Resolution 1024...5000 pulses

OGS 71 S



OGS 71 - SIL2 approval

Features

- For safety-relevant applications according SIL2
- Encoder with shaft $\varnothing 6$ mm
- Resolution max. 5000 ppr
- Sine output signals 1 Vpp
- Low harmonic content (patented LowHarmonics technology)
- Compact, robust die-cast housing
- Inside connecting terminals
- High protection IP 66

Technical data - electrical ratings

Voltage supply	5 VDC ± 5 % 9...30 VDC
Consumption w/o load	≤ 90 mA
Resolution (steps/turn)	1024...5000
Phase shift	90°
Reference signal	Zero pulse, width 90°
Sensing method	Optical
Output signals	A, B, C + inverted
Output circuit	Sine/cosine 1 Vpp
Interference immunity	DIN EN 61000-6-2
Emitted interference	DIN EN 61000-6-4
Approval	UL approval / E256710
Spectrum	250 kHz (-3 dB)
Harmonics share approx.	-50 dB
Offset sine/cosine amplitude	≤ 20 mV
Overlying constant share	≤ 20 mV

Technical data - mechanical design

Dimensions (flange)	$\varnothing 60$ mm
Shaft	$\varnothing 6$ mm
Admitted shaft load	≤ 30 N axial ≤ 40 N radial
Flange	Synchro flange
Protection DIN EN 60529	IP 66
Operating speed	≤ 10000 rpm (mechanical)
Operating torque typ.	1 Ncm
Rotor moment of inertia	25 gcm ²
Materials	Housing: aluminium die-cast Shaft: stainless steel
Operating temperature	-20...+85 °C
Resistance	DIN EN 60068-2-6 Vibration 10 g, 10-2000 Hz DIN EN 60068-2-27 Shock 300 g, 6 ms
Explosion protection	II3G Ex nA T4 X (gas) II3D Ex tD IP66 A22 T85°C X (dust)
Connection	Terminal box
Weight approx.	350 g

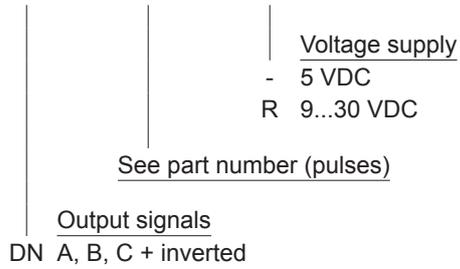
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Part number

OGS 71 S **DN**



Accessories

Eccentric disks
(clamping claws)

Connectors and cables

HEK 8 Sensor cable for encoders

Diagnostic accessories

HENQ 1100 Analyzer for encoders

Part number (pulses)

1024 | 2048 | 5000

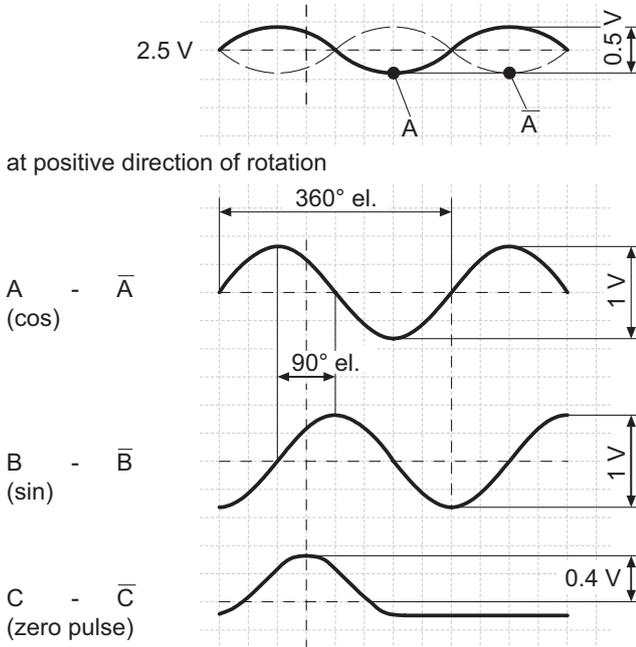
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Output signals

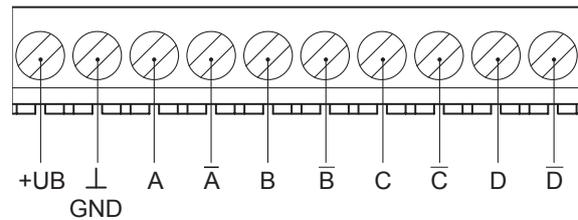


Terminal significance

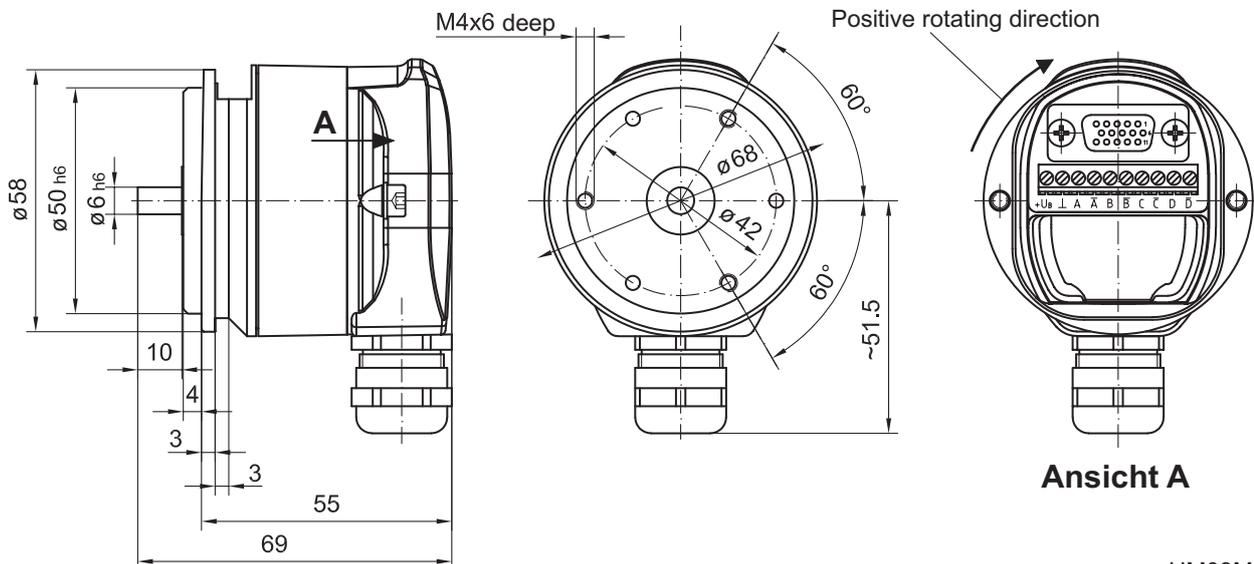
UB	Encoder supply voltage
GND	Encoder ground connection
A	Cosinus
\bar{A}	Cosinus inv.
B	Sinus
\bar{B}	Sinus inv.
C	Zero pulse
\bar{C}	Zero pulse inv.
D	do not use
\bar{D}	do not use

Terminal assignment

View A - Connecting terminal inside the terminal cover



Dimensions



HM09M29388

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