

Sine encoders

Solid shaft with EURO flange B10

720...5000 sinewave cycles per turn

POGS 90



POGS 90

Technical data - electrical ratings

Voltage supply	5 VDC \pm 10 % 9...30 VDC
Consumption w/o load	\leq 90 mA
Sinewave cycles per turn	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
Approvals	CE, UL approval / E256710

Features

- Solid shaft \varnothing 11 mm
- Up to 5000 sinewaves cycles per turn
- Low harmonic content (patented LowHarmonics technology)
- SinCos output-signals 1 Vpp
- Large terminal box, turn by 180°
- EURO flange B10
- Compact, robust die-cast housing

Optional

- Second shaft end

Technical data - mechanical design

Size (flange)	\varnothing 115 mm
Shaft type	\varnothing 11 mm solid shaft
Admitted shaft load	\leq 250 N axial \leq 350 N radial
Flange	EURO flange B10
Protection DIN EN 60529	IP 66
Operating speed	\leq 10000 rpm (mechanical)
Operating torque typ.	2 Ncm
Rotor moment of inertia	320 gcm ²
Materials	Housing: aluminium die-cast alloy and stainless steel 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, 11 ms
Corrosion protection	IEC 60068-2-52 Salt mist Complies to ISO 12944-5:1998 Protective paint systems (C4)
Explosion protection	II 3 G Ex nA IIC T4 Gc (gas) II 3 D Ex tc IIIC T135°C Dc (dust)
Connection	Terminal box
Weight approx.	1.5 kg

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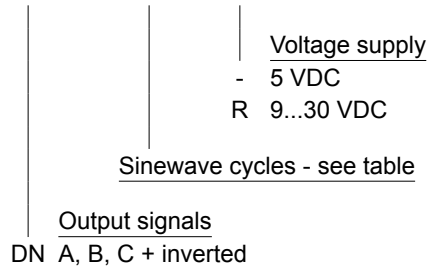
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Part number

POGS90

DN				
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Sinewave cycles

720	800	1024	2048	5000
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Accessories

Connectors and cables

HEK 8	Sensor cable for encoders
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Mounting accessories

K 35	Spring washer coupling for solid shaft $\varnothing 6...12$ mm
K 50	Spring washer coupling for solid shaft $\varnothing 11...16$ mm
K 60	Spring washer coupling for solid shaft $\varnothing 11...22$ mm

Diagnostic accessories

HENQ 1100	Analyzer for encoders
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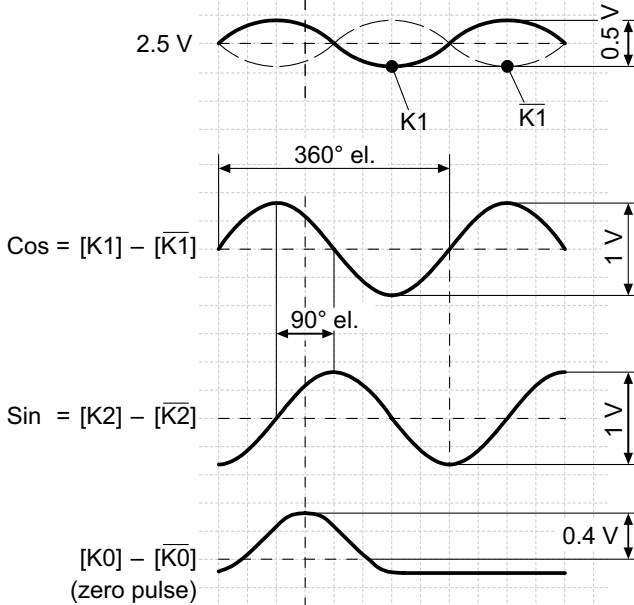
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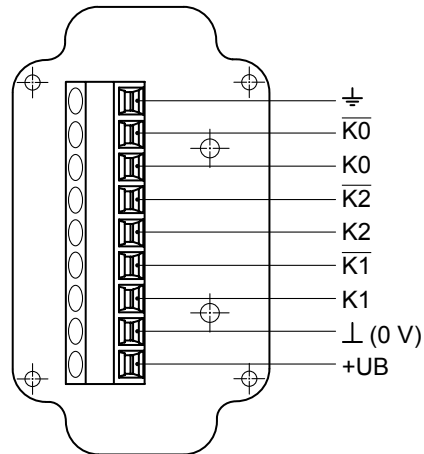
Output signals

at positive direction of rotation

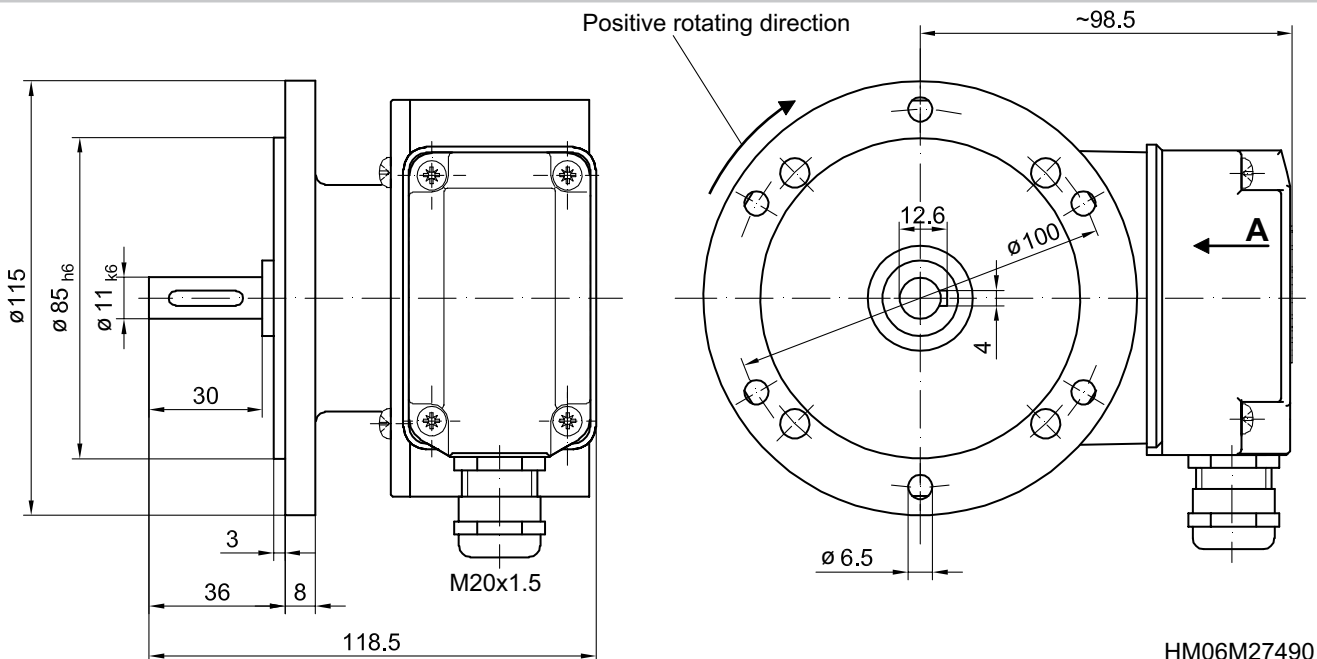


Terminal assignment

View A - Connecting terminal in terminal box



Dimensions



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