

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 ambient conditions C4 according to ISO 12944-2
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

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

Sine encoders

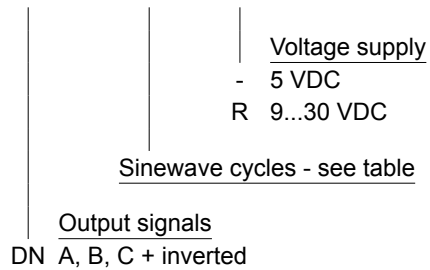
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Part number

POGS90 **DN**



Sinewave cycles

720 | 800 | 1024 | 2048 | 5000

Accessories

Connectors and cables

HEK 8 Sensor cable for encoders

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

11075858 Analyzer for encoders HENQ 1100

Sine encoders

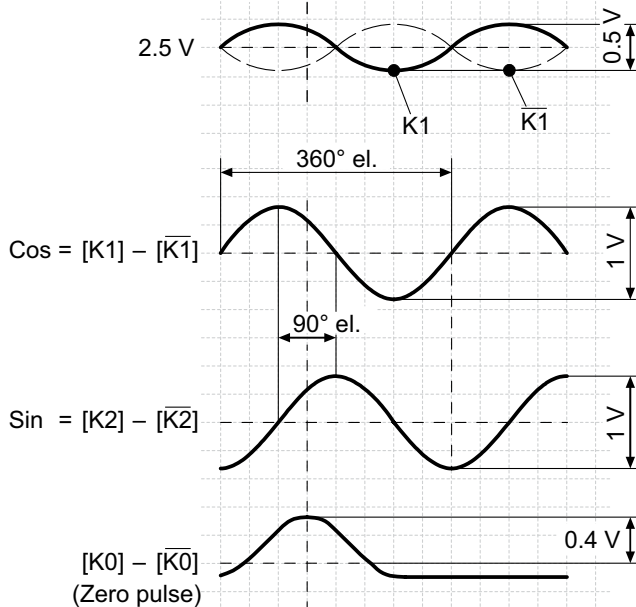
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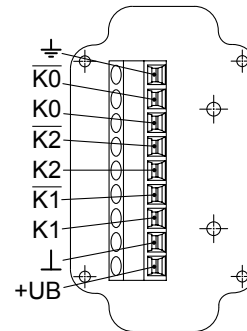
Output signals

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

