

# 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)	$\varnothing$ 105 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 <sup>2</sup>
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
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

# Sine encoders

## Solid shaft with EURO flange B10

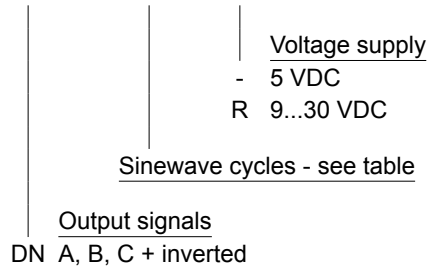
### 720...5000 sinewave cycles per turn

**POGS 90**

#### Part number

POGS90 

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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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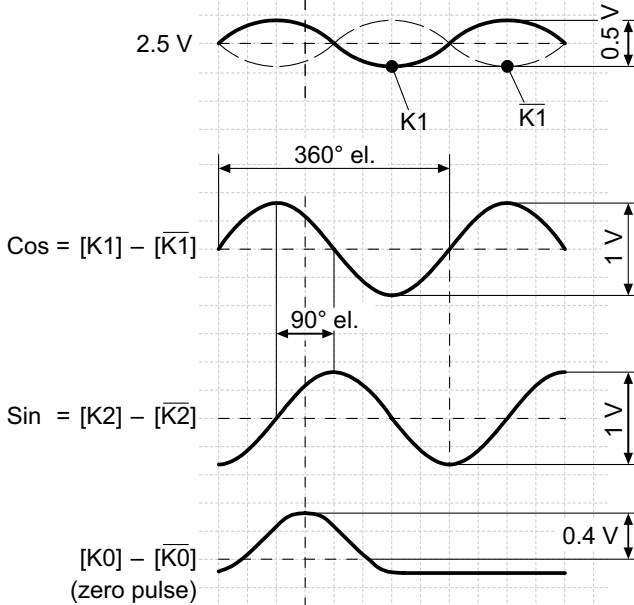
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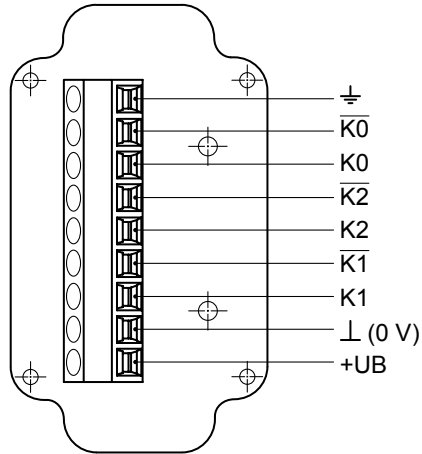
### Output signals

at positive direction of rotation

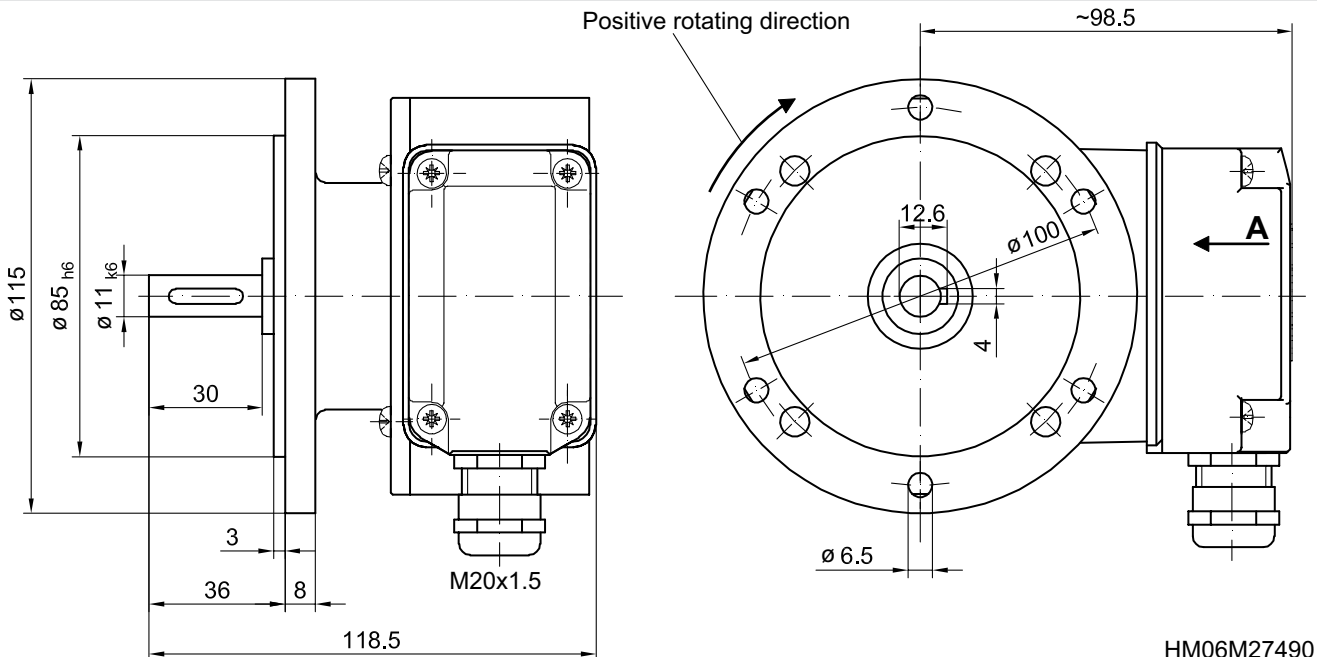


### Terminal assignment

View A - Connecting terminal in terminal box



### Dimensions



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