

## POGS 90

Solid shaft with EURO flange B10

720...5000 sinewave cycles per turn

### Overview

- 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



### Technical data

#### Technical data - electrical ratings

Voltage supply	5 VDC $\pm 10$ % 9...30 VDC
Consumption w/o load	$\leq 90$ mA
Sinewave cycles per revolution	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
Approval	CE UL approval / E217823

#### Technical data - mechanical design

Size (flange)	$\varnothing 115$ mm
Shaft type	$\varnothing 11$ mm solid shaft

### Optional

- Second shaft end

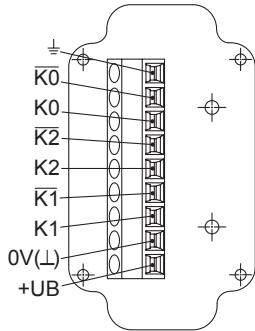
#### Technical data - mechanical design

Admitted shaft load	$\leq 250$ N axial $\leq 350$ N radial
Flange	EURO flange B10
Protection EN 60529	IP 66
Operating speed	$\leq 10000$ rpm (mechanical)
Operating torque typ.	2 Ncm
Rotor moment of inertia	320 gcm <sup>2</sup>
Material	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 for ambient conditions C4 according to ISO 12944-2
Explosion protection	II 3 G Ex ec IIC T4 Gc (gas) II 3 D Ex tc IIIC T135°C Dc (dust) (only with option ATEX)
Connection	Terminal box
Weight approx.	1.5 kg

**Terminal assignment**

**View A** (see dimension)

Connecting terminal terminal box, radial



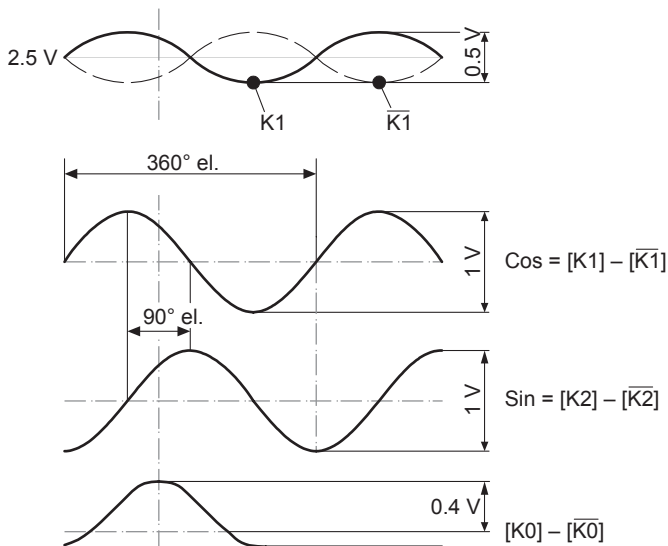
**Terminal significance**

+UB	Voltage supply
0V (L)	Ground
⊥	Earth ground (housing)
K1	Output signal channel 1
$\overline{K1}$	Output signal channel 1 inverted
K2	Output signal channel 2 (offset by 90° to channel 1)
$\overline{K2}$	Output signal channel 2 inverted
K0	Zero pulse (reference signal)
$\overline{K0}$	Zero pulse inverted

**Output signals**

**SinCos**

At positive rotating direction (see dimension)

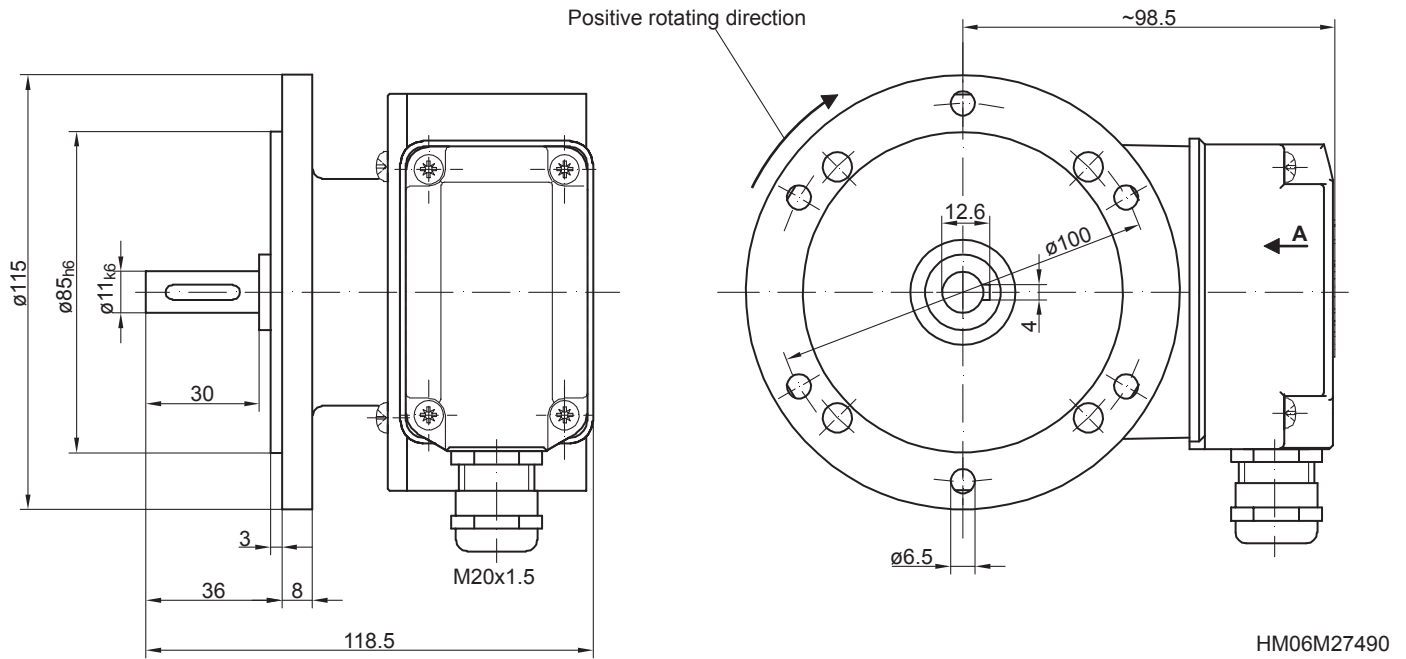


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## Dimensions



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## Ordering reference

	POGS90	DN	####	#
<b>Product</b>				
Sine encoder	POGS90			
<b>Output signals</b>				
K1, K2, K0		DN		
<b>Sinewave cycles</b>				
720				720
800				800
1024				1024
2048				2048
5000				5000
<b>Voltage supply</b>				
5 VDC				-
9...30 VDC				R

## Accessories

### Mounting accessories

- Spring disk coupling K 35 (shaft  $\varnothing$ 6...12 mm)
- Spring disk coupling K 50 (shaft  $\varnothing$ 11...16 mm)
- Spring disk coupling K 60 (shaft  $\varnothing$ 11...22 mm)