

## EExOG 9 S

Ex approval ATEX II 2 G Ex db eb IIC T5/T6 Gb and IECEx Ex db eb IIC T5/T6 Gb  
1024...2048 sinewave cycles per turn

### Overview

- Sine encoder / ATEX / IECEx
- Optical sensing method
- ATEX II 2 G Ex db eb IIC T5/T6 Gb
- IECEx Ex db eb IIC T5/T6 Gb
- Solid shaft  $\varnothing 11$  mm
- Robust light-metal housing
- Top-quality SinCos output-signals
- Low harmonic content (patented LowHarmonics technology)
- Large terminal box, turn by 90°



### Technical data

#### Technical data - electrical ratings

Voltage supply	5 VDC $\pm 5$ % 9...30 VDC
Consumption w/o load	$\leq 90$ mA
Sinewave cycles per revolution	1024 ... 2048
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 ATEX IECEx

#### Technical data - mechanical design

Size (flange)	$\varnothing 115$ mm
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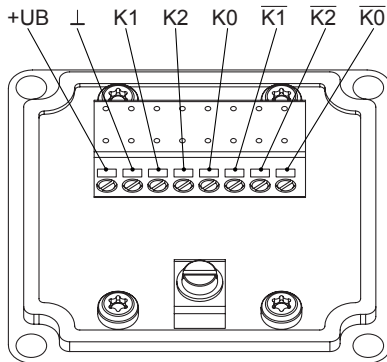
#### Technical data - mechanical design

Shaft type	$\varnothing 11$ mm solid shaft
Admitted shaft load	$\leq 200$ N axial $\leq 350$ N radial
Flange	EURO flange B10
Protection EN 60529	IP 56
Operating speed	$\leq 6000$ rpm (T5, mechanical) $\leq 4500$ rpm (T6, mechanical)
Operating torque typ.	4 Ncm
Rotor moment of inertia	290 gcm <sup>2</sup>
Material	Housing: aluminium die-cast Shaft: stainless steel
Ambient temperature	-20...+55 °C
Resistance	IEC 60068-2-6 Vibration 10 g, 50-2000 Hz IEC 60068-2-27 Shock 100 g, 6 ms
Corrosion protection	IEC 60068-2-52 Salt mist for ambient conditions C4 according to ISO 12944-2
Explosion protection	II 2 G Ex db eb IIC T5/T6 Gb Ex db eb IIC T5/T6 Gb
Connection	Terminal box
Weight approx.	3.5 kg

## Terminal assignment

**View A** (see dimension)

Connecting terminal terminal box



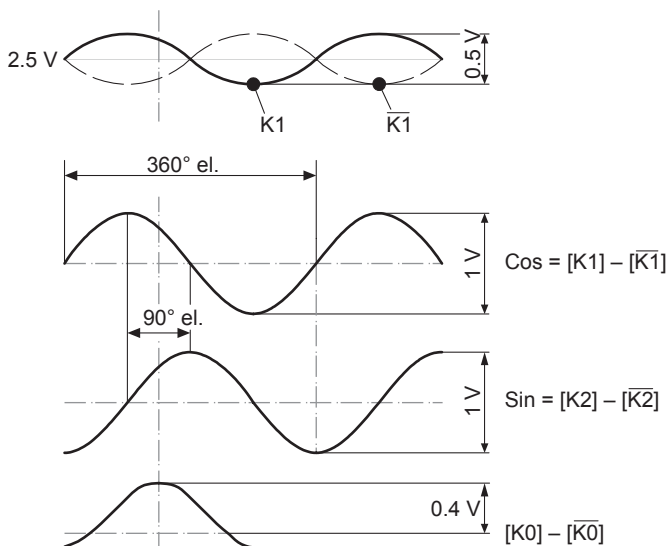
## Terminal significance

+UB	Voltage supply
0V (⊥)	Ground
K1	Output signal channel 1
K1̄	Output signal channel 1 inverted
K2	Output signal channel 2 (offset by 90° to channel 1)
K2̄	Output signal channel 2 inverted
K0	Zero pulse (reference signal)
K0̄	Zero pulse inverted

## Output signals

**SinCos**

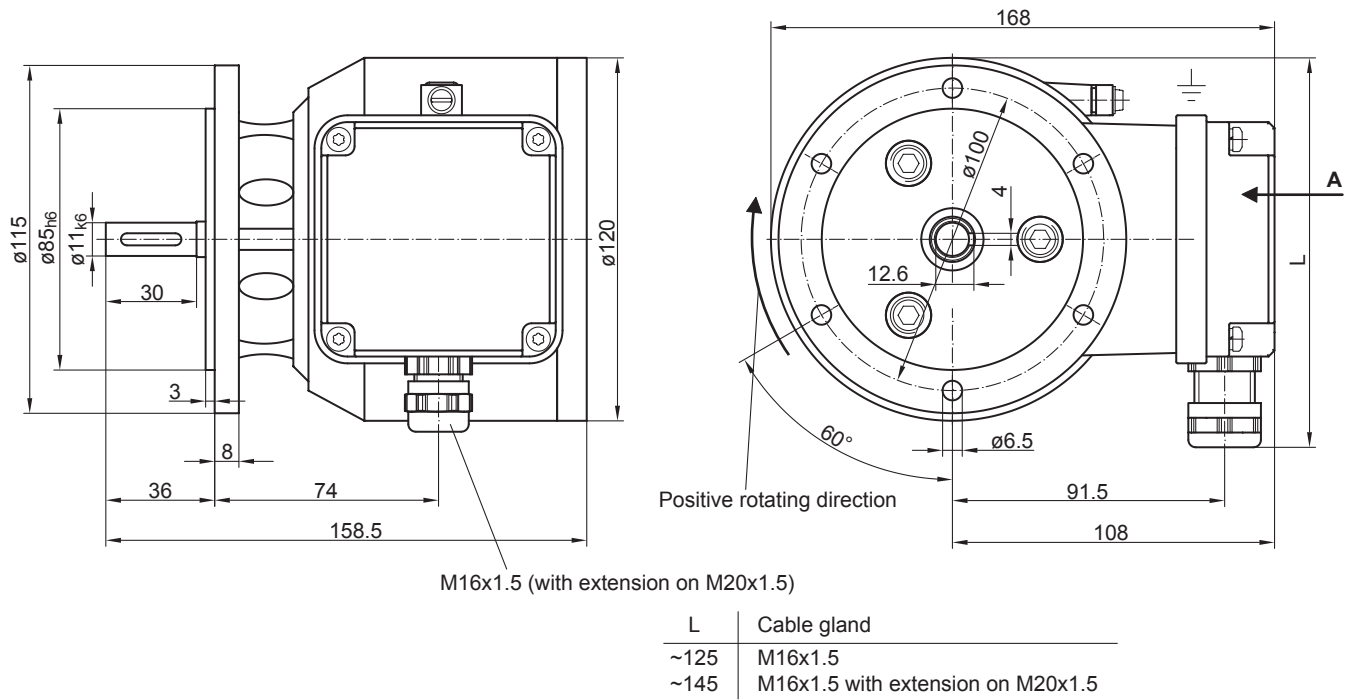
At positive rotating direction (see dimension)



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### Dimensions



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### Ordering reference

		EExOG9S	DN	####	###
<b>Product</b>		Sine encoder	EExOG9S		
<b>Output signals</b>		K1, K2, K0	DN		
<b>Sinewave cycles</b>		1024			1024
		2048			2048
<b>Voltage supply / output stage</b>		5 VDC / SinCos			-
		9...30 VDC / SinCos			R

### Accessories

#### Mounting accessories

- Spring disk coupling K 35 (shaft ø6...12 mm)
- Spring disk coupling K 50 (shaft ø11...16 mm)
- Spring disk coupling K 60 (shaft ø11...22 mm)

#### Diagnostic accessories

- 11075858 Analyzer for encoders HENQ 1100
- 11075880 Analyzer for encoders HENQ 1100 B