

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 ± 5 % 9...30 VDC
Consumption w/o load	≤ 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	≤ 20 mV
Harmonics typ.	-50 dB
DC offset	≤ 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
---------------	----------------------

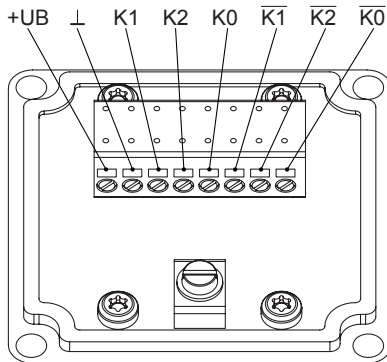
Technical data - mechanical design

Shaft type	$\varnothing 11$ mm solid shaft
Admitted shaft load	≤ 200 N axial ≤ 350 N radial
Flange	EURO flange B10
Protection EN 60529	IP 56
Operating speed	≤ 6000 rpm (T5, mechanical) ≤ 4500 rpm (T6, mechanical)
Operating torque typ.	4 Ncm
Rotor moment of inertia	290 gcm ²
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



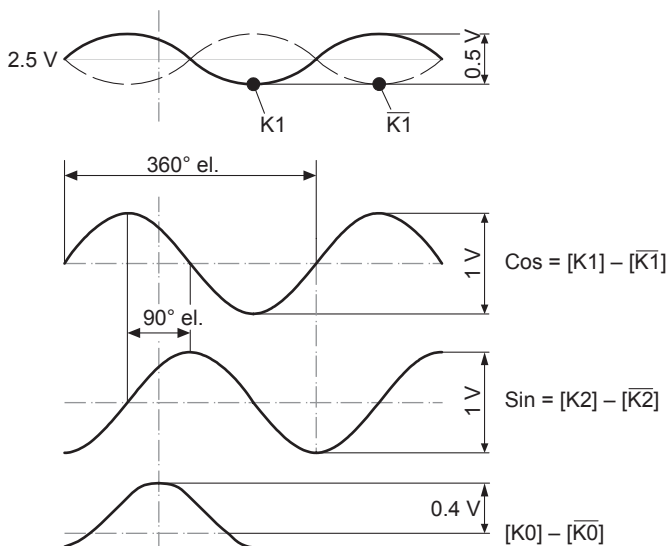
Terminal significance

+UB	Voltage supply
0V (⊥)	Ground
K1	Output signal channel 1
K̄1	Output signal channel 1 inverted
K2	Output signal channel 2 (offset by 90° to channel 1)
K̄2	Output signal channel 2 inverted
K0	Zero pulse (reference signal)
K̄0	Zero pulse inverted

Output signals

SinCos

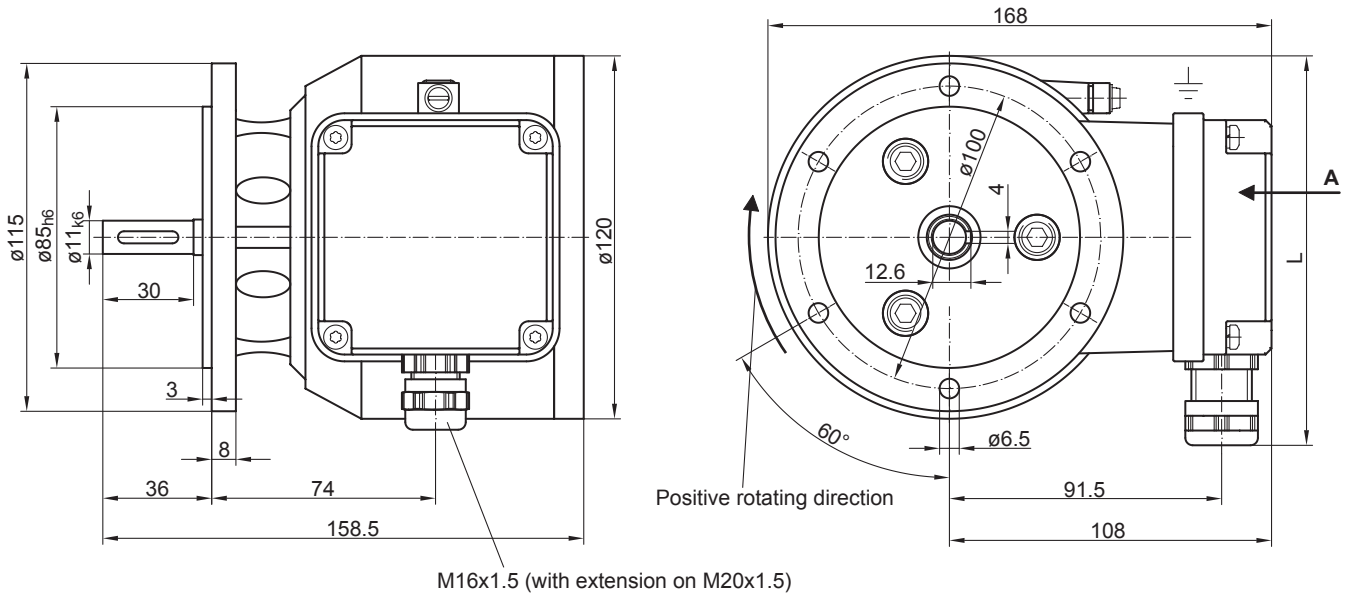
At positive rotating direction (see dimension)



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

Dimensions



M16x1.5 (with extension on M20x1.5)

L	Cable gland
~125	M16x1.5
~145	M16x1.5 with extension on M20x1.5

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

Ordering reference

		EExOG9S	DN	####	###
Product	Sine encoder	EExOG9S			
Output signals	K1, K2, K0		DN		
Sinewave cycles	1024				1024
	2048				2048
Voltage supply / output stage	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)