

Sine encoders

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

EExOG 9 S



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Features

- 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 - electrical ratings

Voltage supply	5 VDC ± 5 % 9...30 VDC
Consumption w/o load	≤ 90 mA
Sinewave cycles per turn	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
Approvals	CE, ATEX, IECEx

Technical data - mechanical design

Size (flange)	$\varnothing 115$ mm
Shaft type	$\varnothing 11$ mm solid shaft
Admitted shaft load	≤ 200 N axial ≤ 350 N radial
Flange	EURO flange B10
Protection DIN 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
Materials	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 complies to 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

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Part number

EEXOG9S	DN				
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| Voltage supply / signals
 - 5 VDC / SinCos
 R 9...30 VDC / SinCos
 | Sinewave cycles - see table
 | Output signals
 DN K1, K2, K0

Sinewave cycles

1024		2048
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Accessories

Connectors and cables

11106863	Extension cable gland M16 to M20
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
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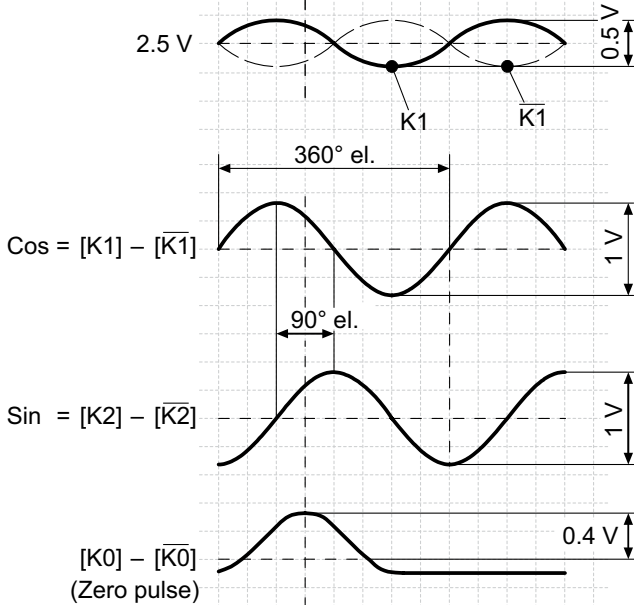
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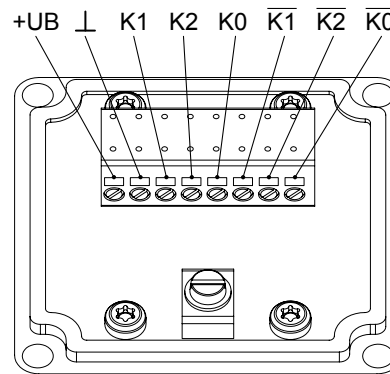
Output signals

At positive rotating direction

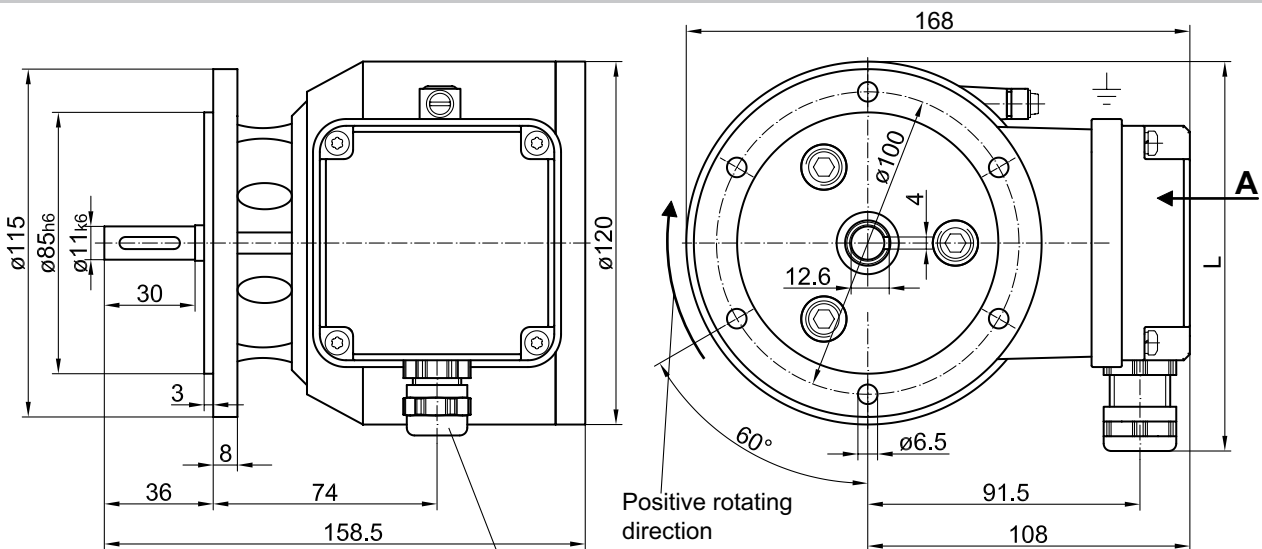


Terminal assignment

View A - Connecting terminal



Dimensions



M16x1.5 (with extension M20x1.5)

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

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