

## EExHOG 161

Ex approval ATEX II 2 G Ex db eb IIC T6 Gb and IECEx Ex db eb IIC T6 Gb  
250...2500 pulses per revolution

### Overview

- Encoder incremental / ATEX
- Optical sensing method
- ATEX II 2 G Ex db eb IIC T6 Gb
- IECEx Ex db eb IIC T6 Gb
- Through hollow shaft  $\varnothing 30...70$  mm
- Robust light-metal housing
- Output stage HTL or TTL
- Output stage TTL with regulator UB 9...26 VDC
- Large terminal box, turn by 180°
- Optional: Cable gland M20x1.5



### Technical data

#### Technical data - electrical ratings

Voltage supply	9...30 VDC 5 VDC $\pm 5\%$ 9...26 VDC
Consumption w/o load	$\leq 100$ mA
Pulses per revolution	250 ... 2500
Phase shift	$90^\circ \pm 20^\circ$
Duty cycle	40...60 %
Reference signal	Zero pulse, width $90^\circ$
Sensing method	Optical
Output frequency	$\leq 120$ kHz
Output signals	K1, K2, K0 + inverted
Output stages	HTL TTL/RS422
Interference immunity	EN 61000-6-2
Emitted interference	EN 61000-6-3
Approval	CE ATEX IECEx

#### Technical data - mechanical design

Size (flange)	$\varnothing 160$ mm
Shaft type	$\varnothing 30...70$ mm (through hollow shaft)
Admitted shaft load	$\leq 450$ N axial $\leq 650$ N radial

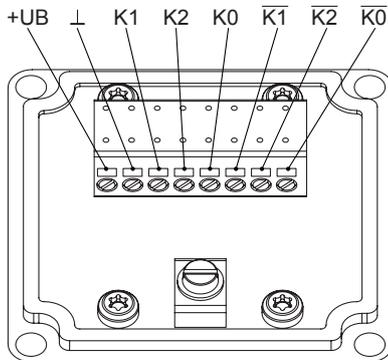
#### Technical data - mechanical design

Protection EN 60529	IP 54 IP 56
Operating speed	$\leq 5600$ rpm (mechanical)
Operating torque typ.	60 Ncm
Rotor moment of inertia	31.9 kgcm <sup>2</sup> ( $\varnothing 40$ ) 11.3 kgcm <sup>2</sup> ( $\varnothing 70$ )
Material	Housing: aluminium alloy Shaft: stainless steel
Ambient temperature	-20...+58 °C (IP 56) -20...+66 °C (IP 54)
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 T6 Gb Ex db eb IIC T6 Gb
Connection	Terminal box
Weight approx.	8.8 kg ( $\varnothing 40$ ) 6.2 kg ( $\varnothing 70$ )

**Terminal assignment**

**View A** (see dimension)

Connecting terminal terminal box



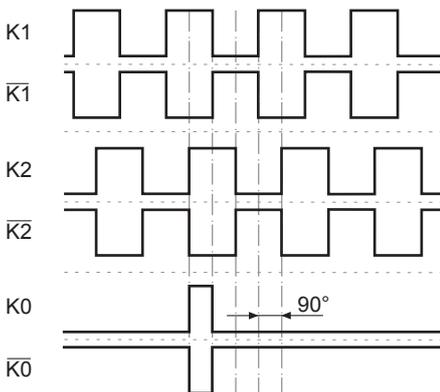
**Terminal significance**

+UB	Voltage supply
0V (L)	Ground
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**

**HTL/TTL**

At positive rotating direction (see dimension)

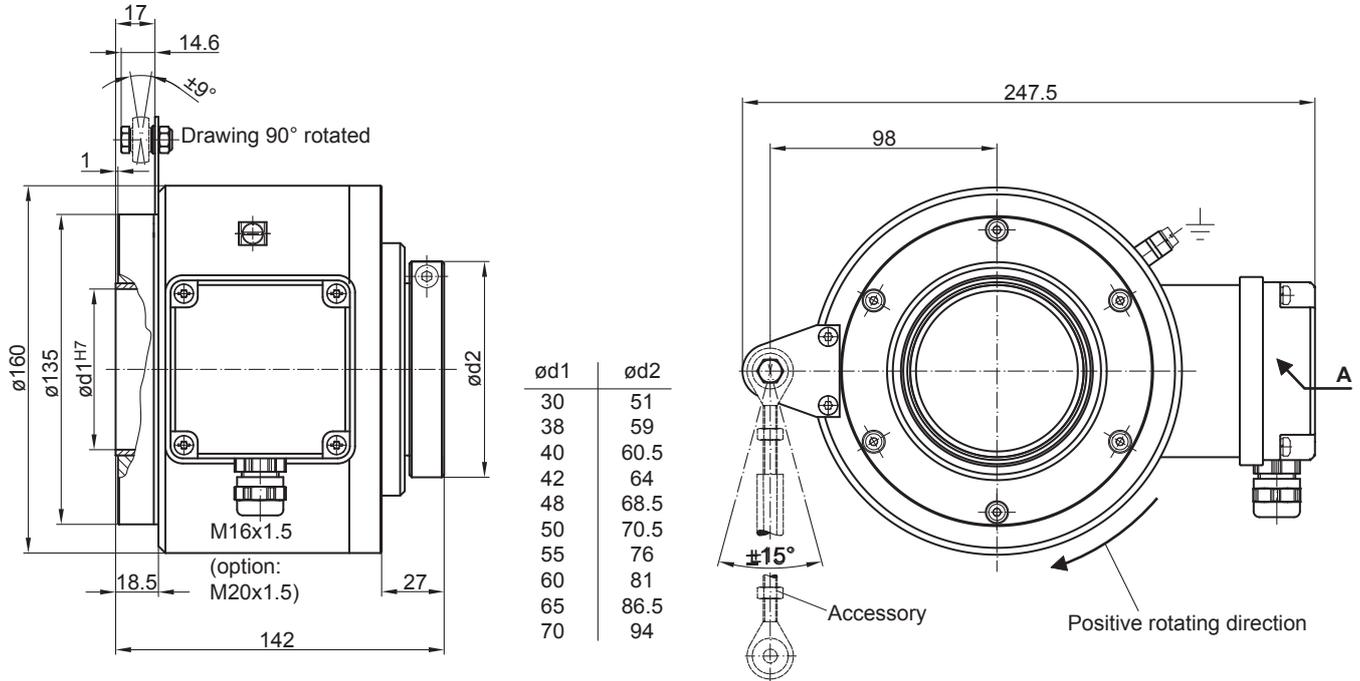


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## Dimensions



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## Ordering reference

EExHOG161 DN #### ### #### #####

### Product

Incremental encoder

EExHOG161

### Output signals

K1, K2, K0

DN

### Pulse number

250

250

500

500

512

512

1000

1000

1024

1024

1080

1080

1200

1200

2048

2048

2500

2500

### Voltage supply / output stage

9...30 VDC / output stage HTL with inverted signals

I

5 VDC / output stage TTL with inverted signals

TTL

9...30 VDC / output stage TTL with inverted signals

R

### Protection

IP 54

IP54

IP 56

IP56

### Shaft diameter

Through hollow shaft ø30 mm

30H7

Through hollow shaft ø40 mm

40H7

Through hollow shaft ø42 mm

42H7

Through hollow shaft ø48 mm

48H7

Through hollow shaft ø50 mm

50H7

Through hollow shaft ø55 mm

55H7

Through hollow shaft ø60 mm

60H7

Through hollow shaft ø65 mm

65H7

Through hollow shaft ø70 mm

70H7

## Accessories

### Mounting accessories

11043628	Torque arm M6, length 67...70 mm
11004078	Torque arm M6, length 120...130 mm (≥71 mm)
11002915	Torque arm M6, length 425...460 mm (≥131 mm)
11054917	Torque arm M6 insulated, length 67...70 mm
11072795	Torque arm M6 insulated, length 120...130 mm (≥71 mm)
11082677	Torque arm M6 insulated, length 425...460 mm (≥131 mm)