

## 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



**HUBNER**  
BERLIN  
A Baumer Brand

### 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 ( $\varnothing 70$ )

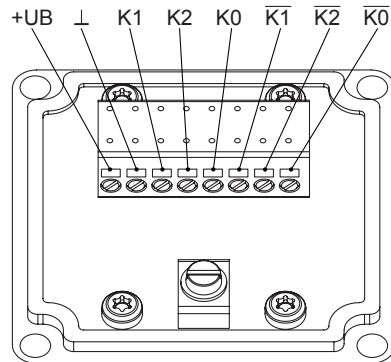
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### Terminal assignment

**View A** (see dimension)

Connecting terminal terminal box



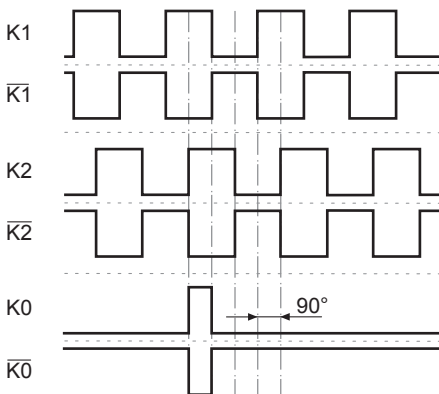
### Terminal significance

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

### Output signals

**HTL/TTL**

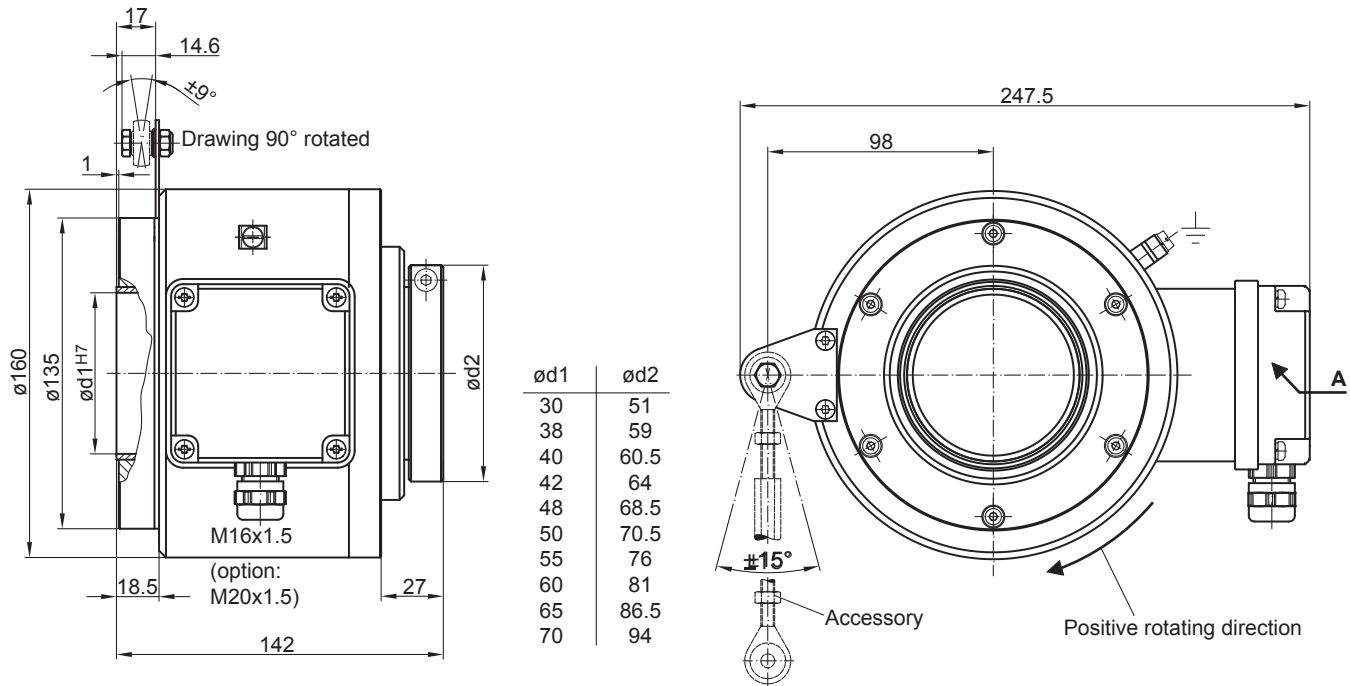
At positive rotating direction (see dimension)



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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)

### Diagnostic accessories

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