

## HOG 16

Through hollow shaft  $\varnothing 20 \dots 38$  mm  
250...2500 pulses per revolution

### Overview

- Through hollow shaft  $\varnothing 20 \dots 38$  mm
- Robust light-metal housing
- Output stage HTL, TTL or TTL with regulator UB 9...26 VDC
- Special protection against corrosion
- With earthing brushes
- Large terminal box, turn by 180°



**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 UL approval / E217823

#### Technical data - mechanical design

Size (flange)	$\varnothing 158$ mm
---------------	----------------------

#### Technical data - mechanical design

Shaft type	$\varnothing 20 \dots 38$ mm (through hollow shaft)
Admitted shaft load	$\leq 450$ N axial $\leq 600$ N radial
Protection EN 60529	IP 66
Operating speed	$\leq 6000$ rpm (mechanical)
Operating torque typ.	15 Ncm
Rotor moment of inertia	4.9 kgcm <sup>2</sup> ( $\varnothing 25$ )
Material	Housing: aluminium alloy Shaft: stainless steel
Operating temperature	$-40 \dots +100$ °C
Resistance	IEC 60068-2-6 Vibration 20 g, 10-2000 Hz IEC 60068-2-27 Shock 300 g, 6 ms
Corrosion protection	IEC 60068-2-52 Salt mist for ambient conditions C4 according to ISO 12944-2
Connection	Terminal box 2x terminal box (with option M)
Weight approx.	4.9 kg 5.1 kg (with option M)

### Optional

- Redundant sensing with two terminal boxes
- Hybrid bearing

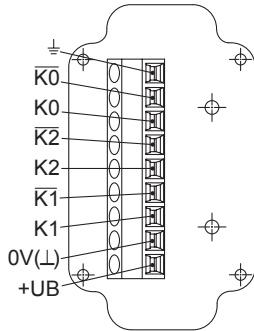
# HOG 16

Through hollow shaft  $\varnothing 20 \dots 38$  mm  
250...2500 pulses per revolution

## Terminal assignment

**View A** (see dimension)

Connecting terminal terminal box, radial



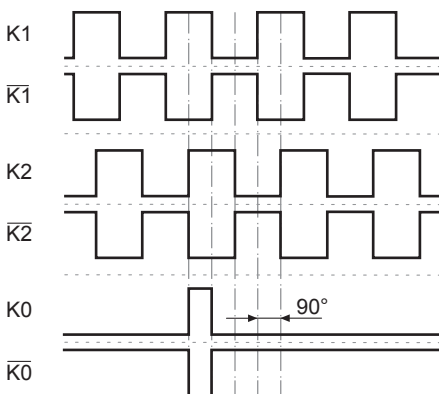
## Terminal significance

+UB	Voltage supply
0V (L)	Ground
⊥	Earth ground (housing)
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**

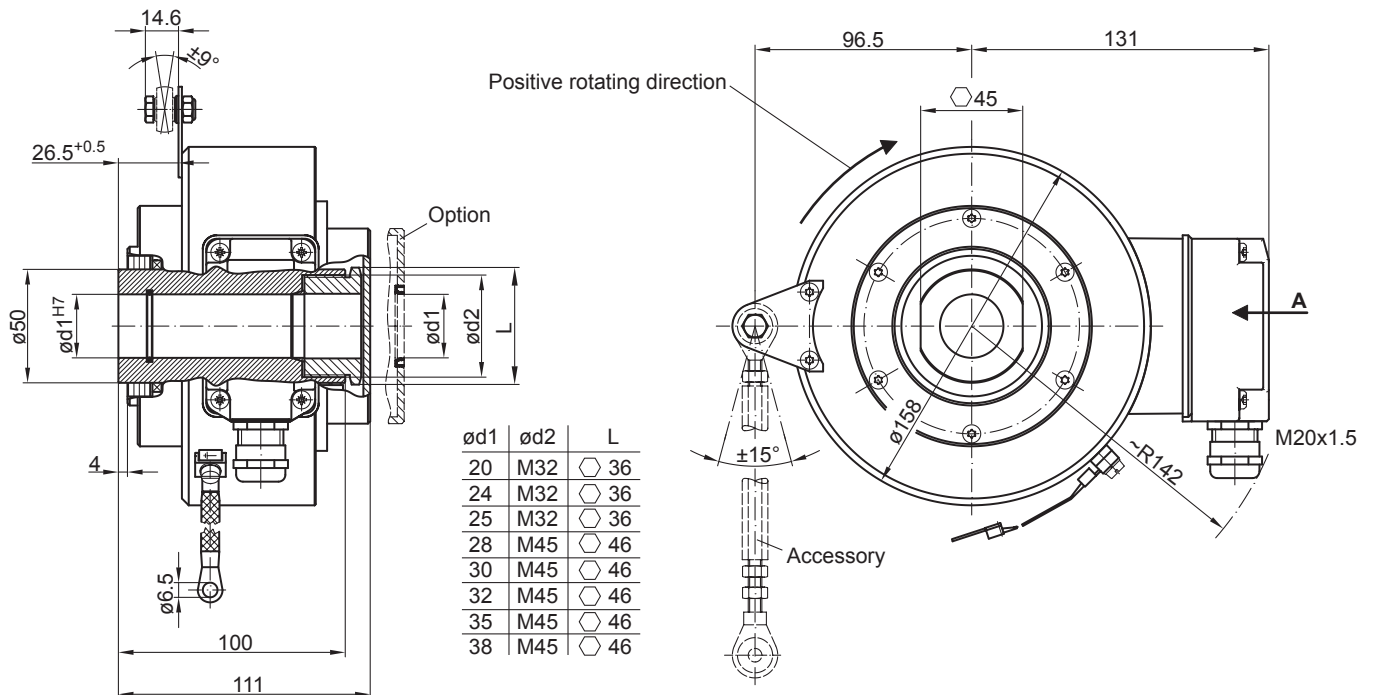
At positive rotating direction (see dimension)



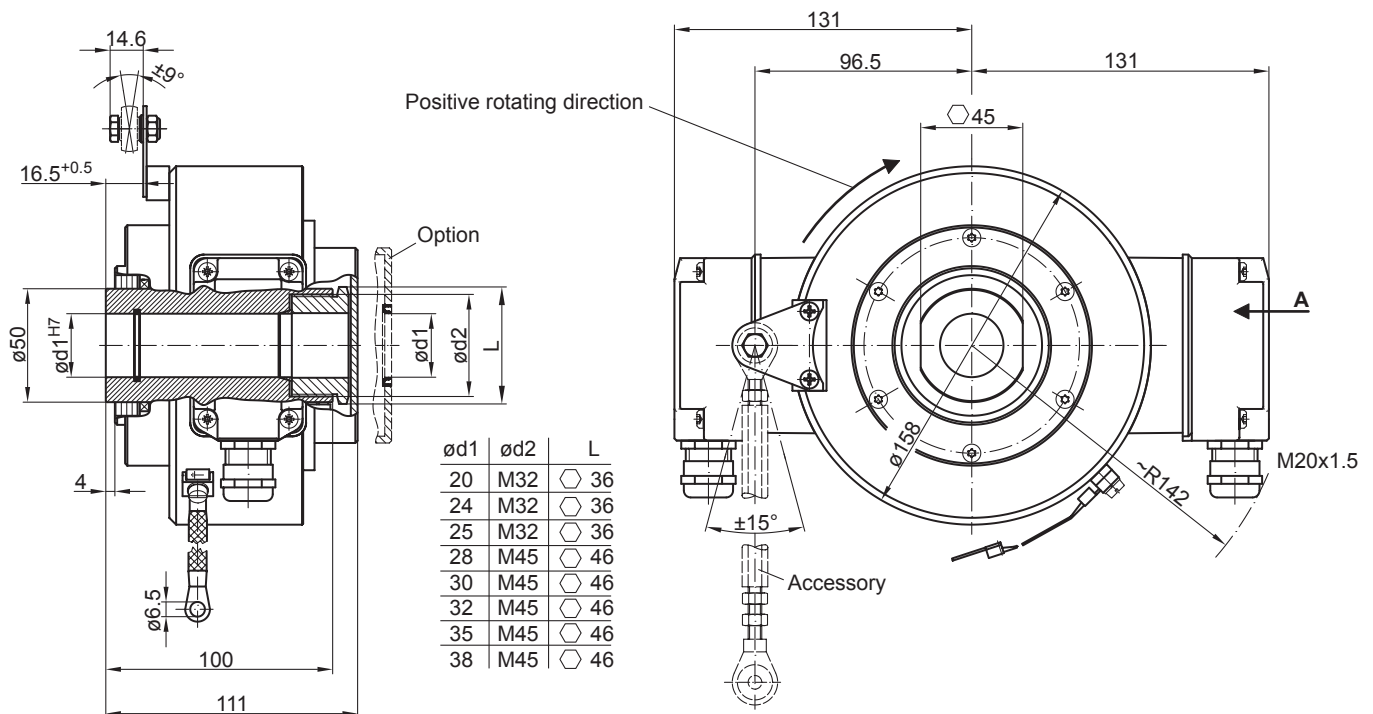
# HOG 16

Through hollow shaft  $\varnothing 20 \dots 38$  mm  
250...2500 pulses per revolution

## Dimensions



Version with single sensing



Version with redundant sensing

# HOG 16

 Through hollow shaft  $\varnothing 20 \dots 38$  mm  
 250...2500 pulses per revolution

## Ordering reference

	HOG16	#	#	DN	####	###	#####
<b>Product</b>	HOG16						
Incremental encoder	HOG16						
<b>Shaft type</b>							
Standard ball bearings							
With hybrid bearings			C				
<b>Redundant sensing</b>							
Without redundant sensing							
With redundant sensing				M			
<b>Output signals</b>							
K1, K2, K0				DN			
<b>Pulse number<sup>(1)</sup></b>							
250						250	
500						500	
512						512	
600						600	
1000						1000	
1024						1024	
1080						1080	
1200						1200	
2048						2048	
2500						2500	
<b>Voltage supply / output stage</b>							
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
<b>Shaft diameter</b>							
Blind hollow shaft $\varnothing 20$ mm							20H7
Through hollow shaft $\varnothing 24$ mm							24H7
Through hollow shaft $\varnothing 25$ mm							25H7
Blind hollow shaft $\varnothing 28$ mm							28H7
Through hollow shaft $\varnothing 30$ mm							30H7
Blind hollow shaft $\varnothing 32$ mm							32H7
Through hollow shaft $\varnothing 35$ mm							35H7
Blind hollow shaft $\varnothing 38$ mm							38H7

(1) Other pulse numbers on request.

## Accessories

### Mounting accessories

11043628	Torque arm M6, length 67...70 mm
11004078	Torque arm M6, length 120...130 mm ( $\geq 71$ mm)
11002915	Torque arm M6, length 425...460 mm ( $\geq 131$ mm)
11054917	Torque arm M6 insulated, length 67...70 mm
11072795	Torque arm M6 insulated, length 120...130 mm ( $\geq 71$ mm)
11082677	Torque arm M6 insulated, length 425...460 mm ( $\geq 131$ mm)
11077197	Mounting kit for torque arm size M6 and earthing strap