

HOG 163

Through hollow shaft $\varnothing 38 \dots 75$ mm
250...5000 pulses per revolution

Overview

- Insulated constitution
- Optical sensing method
- Robust light-metal housing
- Output stage HTL or TTL
- Output stage TTL with regulator UB 9...26 VDC
- Special protection against corrosion
- Large terminal box, turn by 180°



HUBNER
BERLIN
A Baumer Brand

Technical data

Technical data - electrical ratings

Voltage supply	9...30 VDC 5 VDC ± 5 % 9...26 VDC
Consumption w/o load	≤ 100 mA
Pulses per revolution	250 ... 5000
Phase shift	$90^\circ \pm 20^\circ$
Duty cycle	40...60 %
Reference signal	Zero pulse, width 90°
Sensing method	Optical
Output frequency	≤ 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
Shaft type	$\varnothing 38 \dots 75$ mm (through hollow shaft)
Admitted shaft load	≤ 350 N axial, ≤ 500 N radial

Technical data - mechanical design

Protection EN 60529	IP 56
Operating speed	≤ 6000 rpm (mechanical)
Operating torque typ.	17 Ncm
Rotor moment of inertia	$28.5 \text{ kgcm}^2 (\varnothing 50)$
Material	Housing: aluminium alloy Shaft: stainless steel
Operating temperature	$-40 \dots +85^\circ \text{C}$
Resistance	IEC 60068-2-6 Vibration 10 g, 10-2000 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 3 G Ex ec IIC T4 Gc (gas) II 3 D Ex tc IIIB T135°C Dc (dust) (only with option ATEX)
Connection	Terminal box 2x terminal box (with option M)
Weight approx.	5.4 kg ($\varnothing 48$) 3.5 kg ($\varnothing 75$) 3.9 kg ($\varnothing 75$ with option M)

Optional

- Redundant sensing with two terminal boxes
- Heating for applications up to -50°C (no explosion protection)

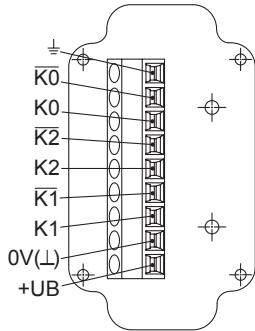
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Terminal assignment

View A (see dimension)

Connecting terminal terminal box, radial



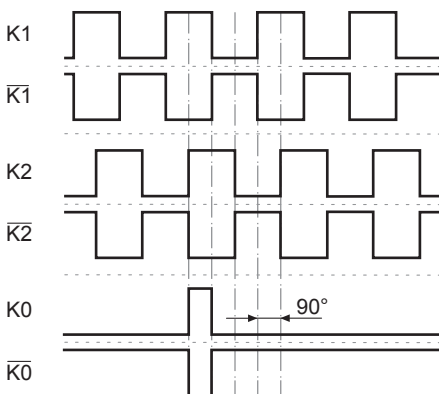
Terminal significance

+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

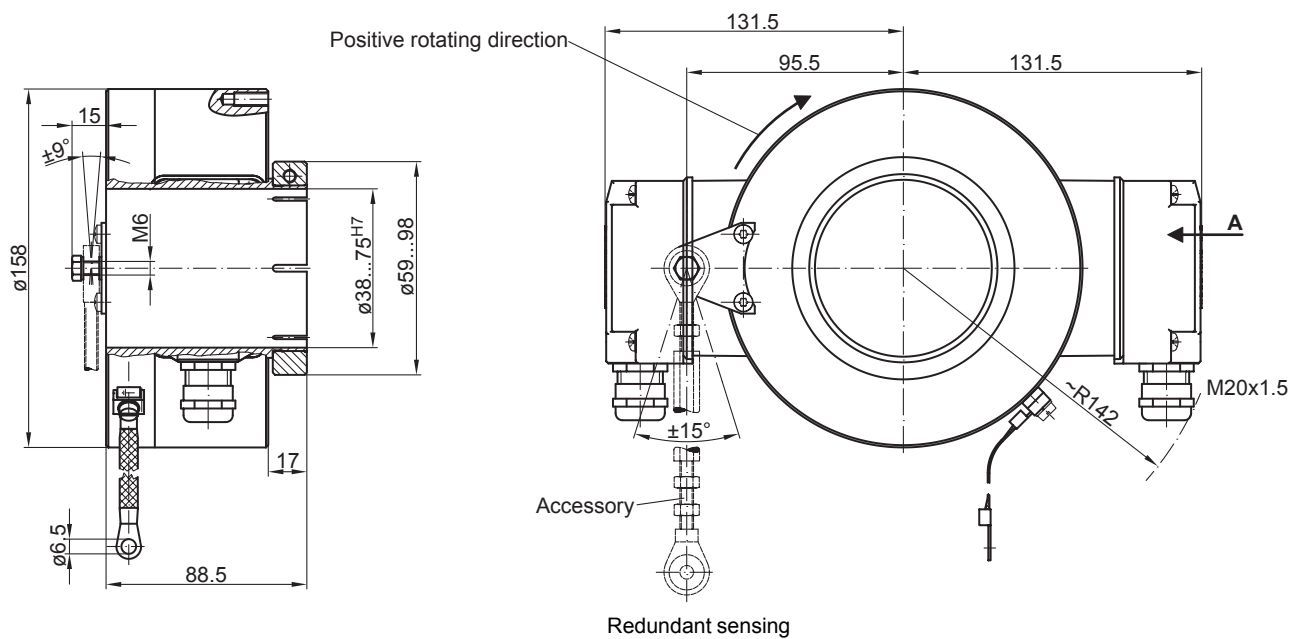
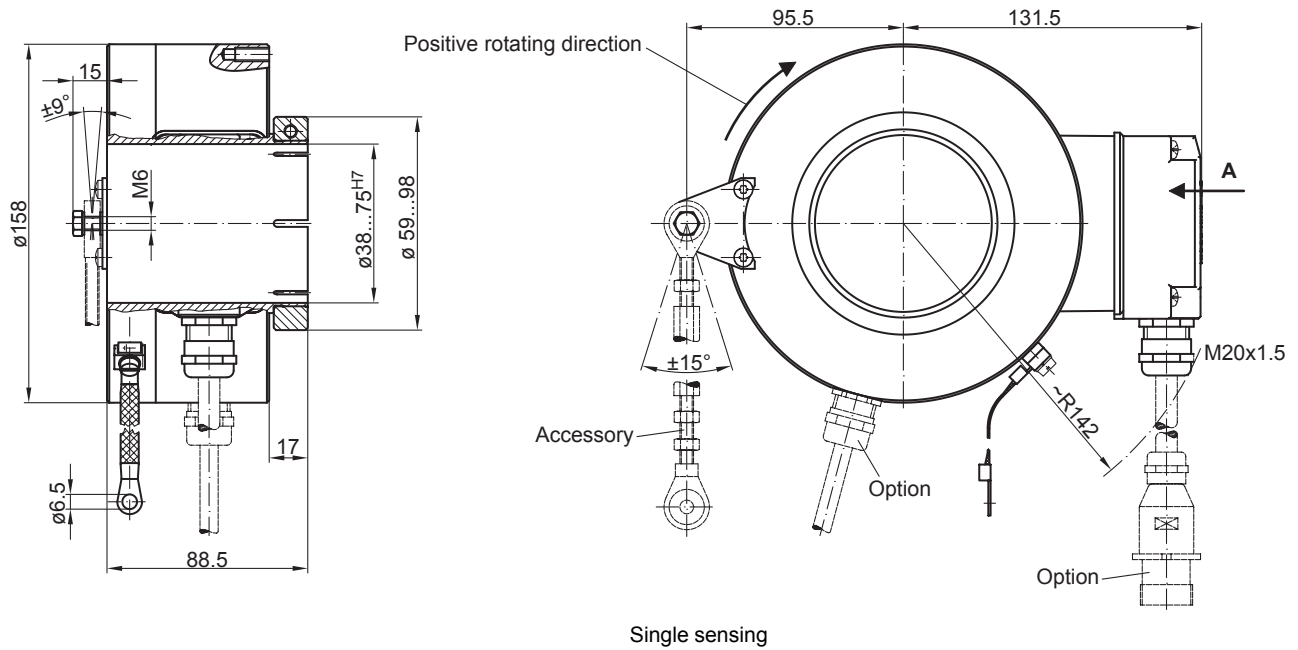
At positive rotating direction (see dimension)



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Dimensions



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Ordering reference

	HOG163	#	DN	####	###	#####
Product	HOG163					
Incremental encoder	HOG163					
Redundant sensing						
Without redundant sensing						
With redundant sensing			M			
Output signals						
K1, K2, K0			DN			
Pulse number⁽¹⁾						
250				250		
500				500		
512				512		
1000				1000		
1024				1024		
1080				1080		
1200				1200		
2048				2048		
2500				2500		
4096				4096		
5000				5000		
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	
Shaft diameter						
Through hollow shaft $\varnothing 50$ mm						50H7
Through hollow shaft $\varnothing 55$ mm						55H7
Through hollow shaft $\varnothing 56$ mm						56H7
Through hollow shaft $\varnothing 60$ mm						60H7
Through hollow shaft $\varnothing 65$ mm						65H7
Through hollow shaft $\varnothing 70$ mm						70H7
Through hollow shaft $\varnothing 75$ mm						75H7

(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 (≥ 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)
11077197	Mounting kit for torque arm size M6 and earthing strap