

# Incremental encoders

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

## HOG 163



HOG 163

### 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...5000
Phase shift	$90^\circ \pm 20^\circ$
Scan ratio	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
Approvals	CE, UL approval / E256710

### Features

- Through hollow shaft  $\varnothing 38$ ...75 mm
- 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
- Big terminal box, turn by  $180^\circ$

### Optional

- Redundant sensing with two terminal boxes
- Heating for applications up to  $-50^\circ\text{C}$  (no explosion protection)

### Technical data - mechanical design

Size (flange)	$\varnothing 158$ mm
Shaft type	$\varnothing 38$ ...75 mm (through hollow shaft)
Shaft loading	$\leq 350$ N axial, $\leq 500$ N radial
Protection DIN EN 60529	IP 56
Operating speed	$\leq 6000$ rpm (mechanical)
Operating torque typ.	17 Ncm
Rotor moment of inertia	28.5 kgcm <sup>2</sup> ( $\varnothing 50$ )
Materials	Housing: aluminium alloy Shaft: stainless steel
Operating temperature	$-40$ ... $+85^\circ\text{C}$
Resistance	IEC 60068-2-6 Vibration 10 g, 10-2000 Hz IEC 60068-2-27 Shock 100 g, 6 ms
Explosion protection	II 3 G Ex nA IIC T4 Gc (gas) II 3 D Ex tc IIIB T135 $^\circ\text{C}$ Dc (dust)
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)



# Incremental encoders

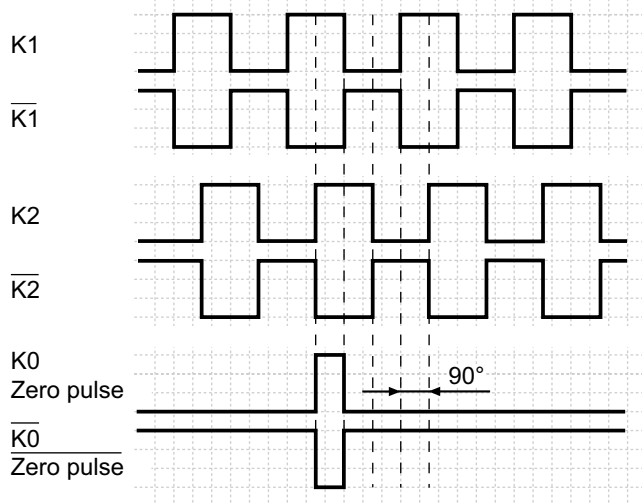
Through hollow shaft  $\varnothing 38$  to  $\varnothing 75$  mm

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## HOG 163

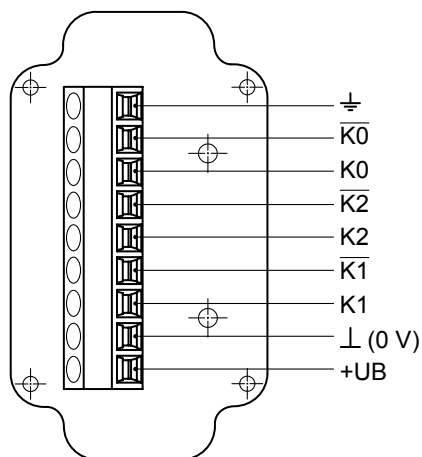
### Output signals

At positive rotating direction



### Terminal assignment

View A - Connecting terminal in terminal box



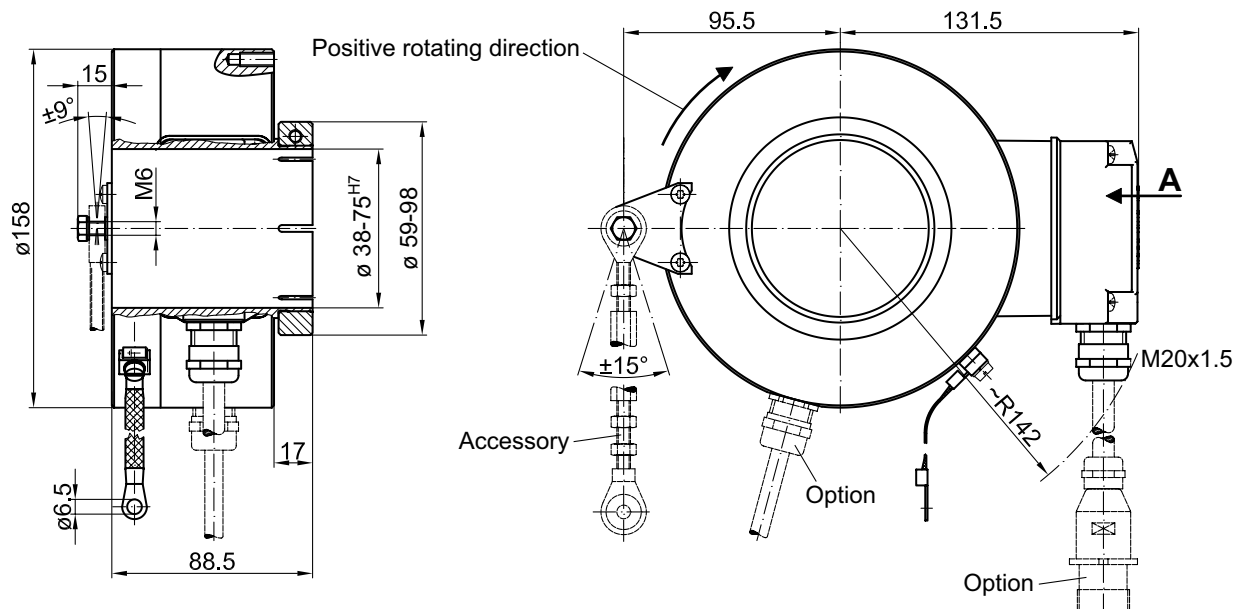
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HOG 163

## Dimensions

### HOG 163 - Version with single sensing



### HOG 163 - Version with redundant sensing

