

# Incremental encoders

Hollow shaft  $\varnothing 38$  to  $\varnothing 75$  mm

Resolution 250...2500 pulses

## HOG 161



HOG 161

### Technical data - electrical ratings

Voltage supply	5 VDC $\pm 5$ % 9...26 VDC 9...30 VDC
Consumption w/o load	$\leq 100$ mA
Resolution (steps/turn)	250...2500
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 circuit	TTL (RS422) HTL (power linedriver)
Interference immunity	DIN EN 61000-6-2
Emitted interference	DIN EN 61000-6-4
Approval	UL approval / E256710

### Features

- Robust light-metal housing
- Hollow shaft max.  $\varnothing 75$  mm
- Logic level TTL with regulator UB 9...26 VDC
- Logic level HTL with power linedriver
- Special protection against corrosion
- Big terminal box, turn by  $180^\circ$

### Optional

- Redundant version

### Technical data - mechanical design

Shaft	$\varnothing 38$ ...75 mm hollow shaft
Shaft loading	$\leq 350$ N axial $\leq 500$ N radial
Protection DIN EN 60529	IP 54
Operating speed	$\leq 6000$ rpm (mechanical)
Operating torque typ.	15 Ncm
Rotor moment of inertia	26.3 kgcm <sup>2</sup> ( $\varnothing 48$ ) 13.5 kgcm <sup>2</sup> ( $\varnothing 75$ )
Materials	Housing: aluminium alloy Shaft: stainless steel
Operating temperature	$-20$ ... $+85$ °C
Resistance	IEC 60068-2-6 Vibration 10 g, 10-2000 Hz IEC 60068-2-27 Shock 100 g, 6 ms
Explosion protection	II3G Ex nA IIC T4 Gc (gas) II3D Ex tc IIIB T100°C Dc (dust)
Connection	Terminal box
Weight approx.	2.08 kg ( $\varnothing 48$ ), 0.77 kg ( $\varnothing 75$ )

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## Part number

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### Voltage supply / signals

- 9...30 VDC / output circuit HTL
- I 9...30 VDC / output circuit HTL with inverted signals (for output signals DN)
- TTL 5 VDC / output circuit TTL with inverted signals (for output signals DN)
- R 9...26 VDC / output circuit TTL with inverted signals (for output signals DN)

See part number (pulses)

### Output signals

D K1, K2  
DN K1, K2, K0

## Accessories

### Connectors and cables

HEK 8 Sensor cable for encoders

### Mounting accessories

DMS 6 Torque arm size M6

### Diagnostic accessories

HENQ 1100 Analyzer for encoders

## Part number (pulses)

250	512	1000	1080	2048
500	600	1024	1200	2500



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