Baumer
Passion for Sensors

Incremental encoders

HOG1060 - NEMA

High-performant incremental HeavyDuty encoders for demanding machinery and asynchronous drives

Overview

- Protection IP66, IP67
- Shaft insulation 3.5 kV
- Corrosion protection CX
- Operating temperature -40...+212 °F (-40...+100 °C)
- Signal outputs with automatic temperature compensation for stable signals up to 350 m (HTL-P) or 550 m (TTL)
- Sealed and user-friendly field termination
- Extended protection circuit
- Parameterization
- Status monitoring and display with Baumer Sensor Suite
- 4-fold sealing concept for protection against abrasive dust, humid and salty moisture and temperature changes
- Cable gland NPT

Picture similar

HUBNER BERLIN
A Baumer Brand

LongLife

HeavyDuty
70 years of experience

Technical data

Technical data - electrical ratings

Voltage supply	4.75...30 VDC (Vin = Vout, HTL/TTL)
Consumption w/o load	≤100 mA
Pulses per revolution	1 … 32768
Further pulses per revolution	Pulse numbers parameterized ex works or freely parameterizable (SMART) with Baumer Sensor Suite
Phase shift	Typ. 90 °
Duty cycle	Typ. 50 %
Reference signal	Zero pulse, width 90° or 180°
Sensing method	Optical
Output frequency	≤200 kHz
Output signals	K1, K2, K0 + inverted
Output stages	HTL-P (power linedriver) TTL
Shaft insulation	Suitable up to 3.5 kV
Transmission length	≤350 m at 100 kHz (HTL-P) ≤550 m at 100 kHz (TTL)
Interference immunity	EN 61000-6-2
Emitted interference	EN 61000-6-4
Approval	CE UL approval / E217823 CSA

Technical data - mechanical design

Size (flange)	ø4.13", length 3.70" (ø105 mm, length 94 mm)

Technical data - mechanical design

Shaft type	ø5/16" (ø7.93 mm) (solid shaft) ø1" (ø25.4 mm) (through hollow shaft)
Admitted shaft load	≤350 N axial ≤450 N radial
Mounting type	Hollow shaft: central screw Solid shaft: EURO flange B10
Protection EN 60529	IP 66 / IP 67
Operating speed	≤6000 rpm (mechanical)
Operating torque	≤6 Ncm
Rotor moment of inertia	160 gcm²
Material	Housing: aluminium, powder-coated Shaft: stainless steel
Operating temperature	-40...+212 °F (-40...+100 °C)
Resistance	IEC 60068-2-6 Vibration 20 g, 10-2000 Hz IEC 60068-2-27 Shock 300 g, 6 ms 1 Mio. brake shocks
Corrosion protection	IEC 60068-2-52 Salt mist for ambient conditions CX according to ISO 12944-2
Connection	Terminal box with pluggable push in terminal blocks and cable gland M20 or M25 (for connecting wires up to 1.5 mm²)

Optional

- ATEX

Possible combinations

- Redundant sensing with second output (HOG1070 - solid shaft)
- Speed monitoring (HOG1090 - solid shaft)
- Centrifugal switch FSL (HOG1095 - solid shaft)

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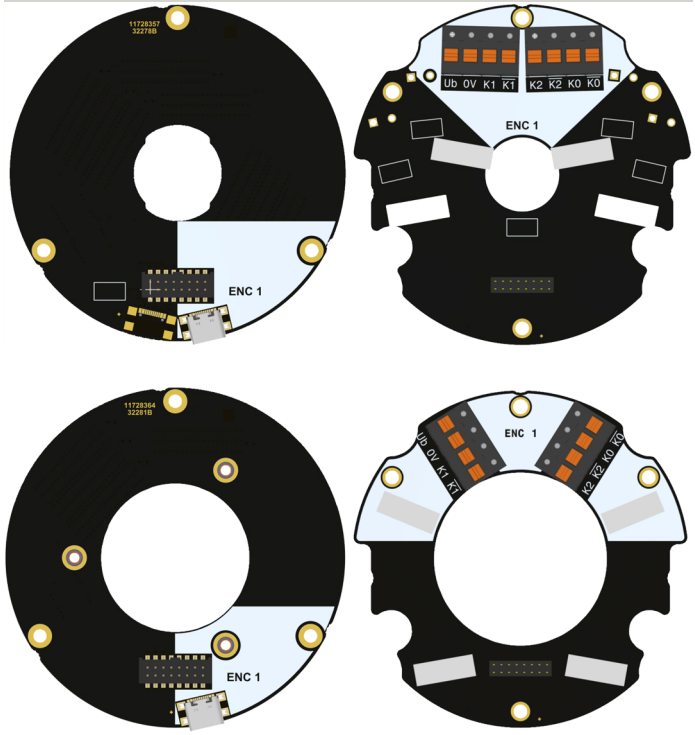
Terminal assignment

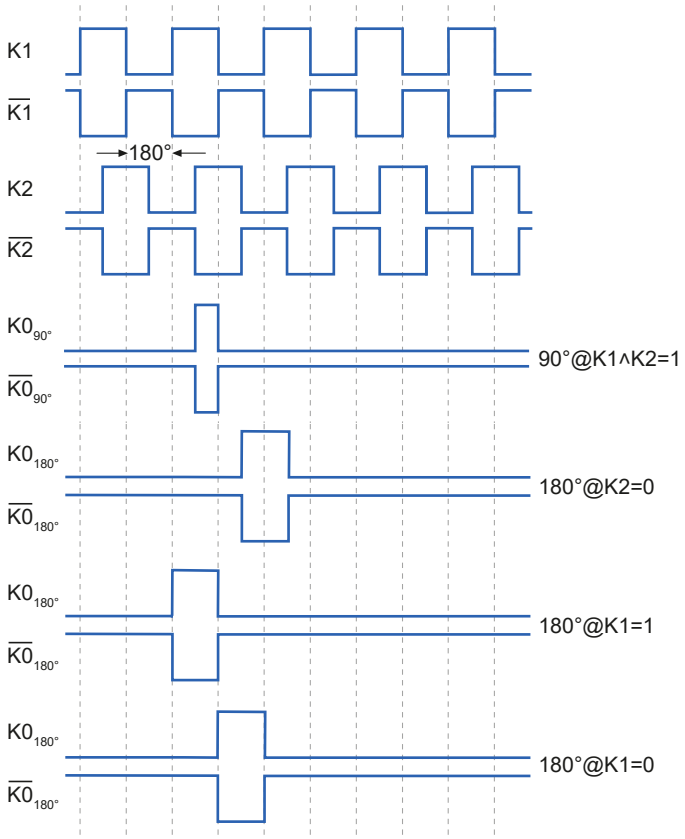


Terminal significance

U_b	Voltage supply
0V	Ground
K0	Zero pulse (reference signal)
$\overline{K0}$	Zero pulse inverted
K1	Output signal channel 1
$\overline{K1}$	Output signal channel 1 inverted
K2	Output signal channel 2
$\overline{K2}$	Output signal channel 2 inverted

USB ENC1	USB-C for parameterization (SMART)

Output signals



With positive direction of rotation / clockwise, with view on the encoder shaft

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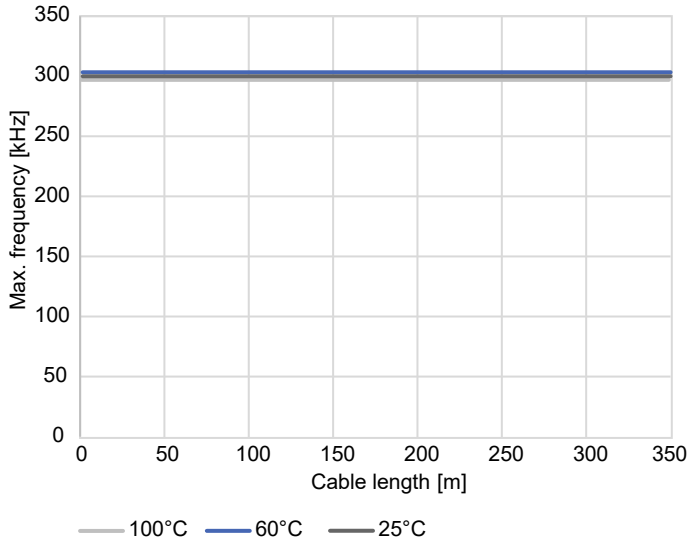
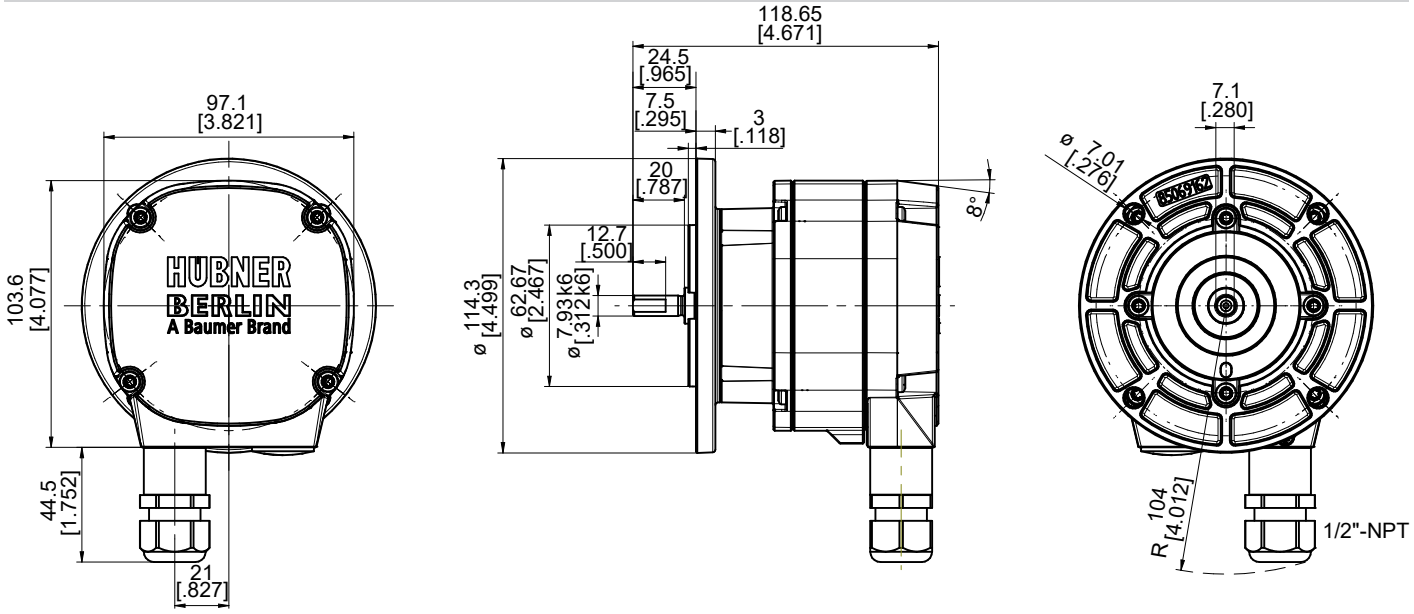
Derating



Max. frequency over cable length and temperature, Ub 24 V

Dimensions



Solid shaft, cable gland NPT

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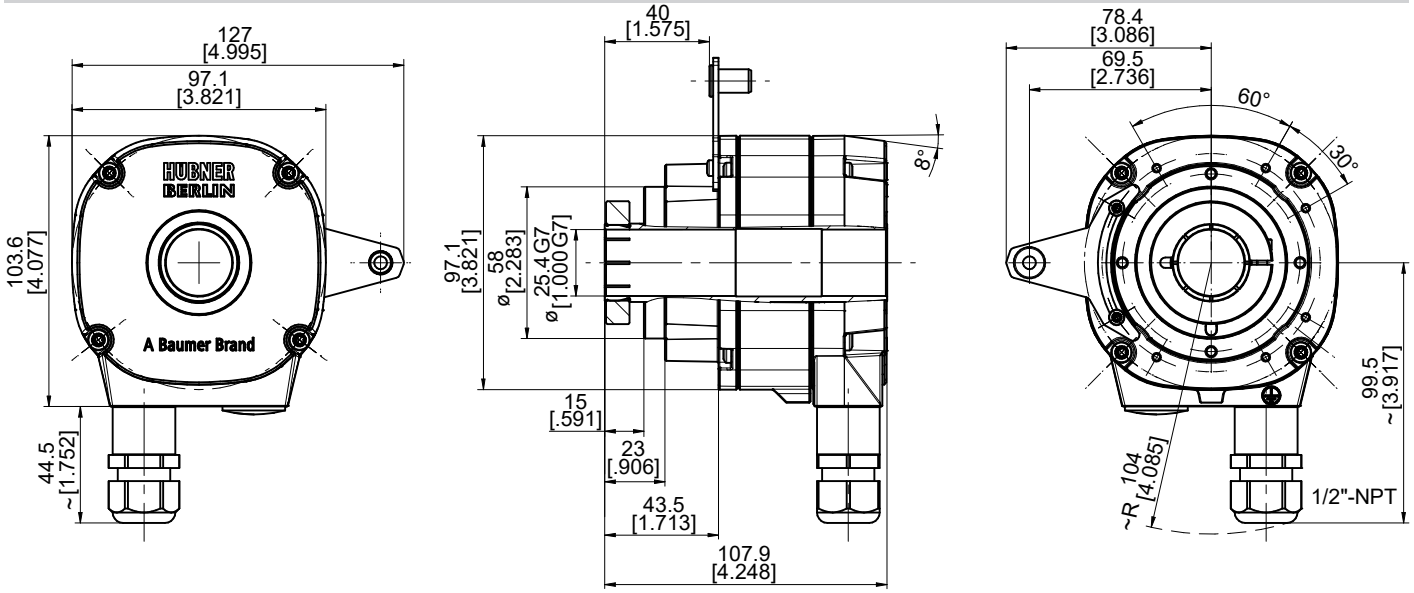
Dimensions



Through hollow shaft, cable gland NPT

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Ordering reference					
Product	**Shaft**	**Pulses per revolution, output**	**Connection**	**Comment**	**Material number**
HOG1060	Solid shaft ø5/16"	Parameterization & monitoring at customer	1 x cable gland NPT	SMART	EHOG1060-11731288
	Through hollow shaft ø1"	Parameterization & monitoring at customer	1 x cable gland NPT	SMART	EHOG1060-11731289