

HOG1095

Incremental HeavyDuty encoders with integrated centrifugal switch for demanding machinery and asynchronous drives

Overview

- Protection IP66, IP67
- Shaft insulation 3.5 kV
- Corrosion protection CX
- Operating temperature -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
- Encoder with integrated centrifugal switch



Picture similar

HUBNER
BERLIN
A Baumer Brand



HeavyDuty
70 years of experience



1+1=1
Combination

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
Phase shift	Typ. 90 °
Duty cycle	Typ. 50 %
Reference signal	Zero pulse, width 90° or 180°
Sensing method	Optical
Output frequency typ.	≤200 kHz
Output signals	K1, K2, K0 + inverted
Output stages	HTL-P (power linedriver) TTL
Shaft insulation	Suitable up to 1 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

Technical data - electrical ratings (centrifugal switch)

Switching accuracy	± 4 % ($\Delta n = 2 \text{ rpm/s}$);
Switching deviation	≤3 % (cw-ccw rotation)
Switching hysteresis	40 % of switching speed
Switching outputs	1 output, speed control
Output switching capacity	3A / 230 VAC (90 °C); ≤100 mA / 230 VAC (100 °C) 1A / 125 VDC (90 °C); ≤100 mA / 125 VDC (100 °C) (EAC: <50 VAC / 75 VDC)

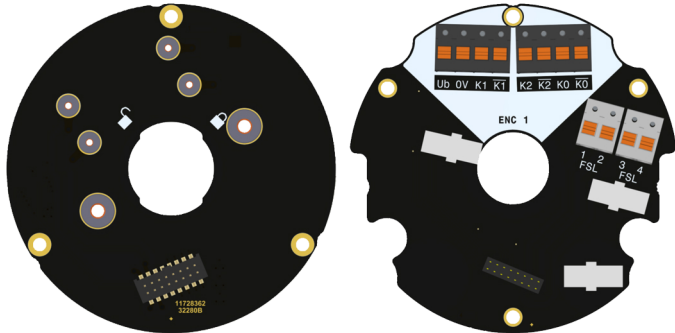
Technical data - mechanical design

Size (flange)	ø105 mm, length 133 mm
Shaft type	ø16G7 mm (blind hollow shaft) ø11 x 30 mm (solid shaft with key)
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)
Starting torque	≤136 Ncm
Rotor moment of inertia	400 gcm ²
Material	Housing: aluminium, powder-coated Shaft: stainless steel
Operating temperature	-40...+100 °C
Resistance	IEC 60068-2-6 Vibration 5 g, 10-2000 Hz IEC 60068-2-27 Shock 50 g, 11 ms
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 2xM20

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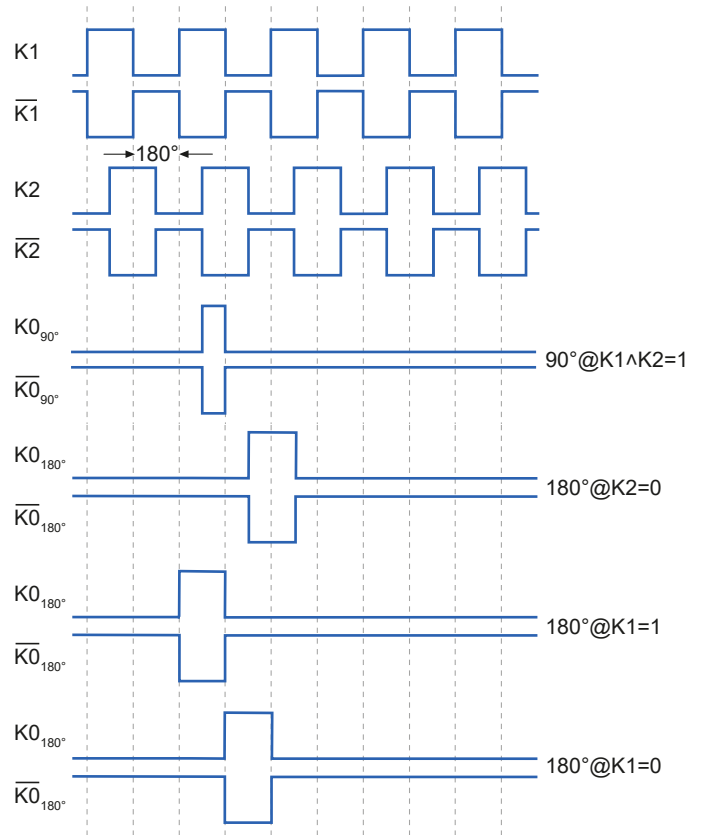
Terminal assignment



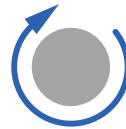
Terminal significance

U _b	Voltage supply
0V	Ground
K0	Zero pulse (reference signal)
K $\bar{0}$	Zero pulse inverted
K1	Output signal channel 1
K $\bar{1}$	Output signal channel 1 inverted
K2	Output signal channel 2
K $\bar{2}$	Output signal channel 2 inverted
FSL1	Centrifugal switch 1 - break contact
FSL2	Centrifugal switch 2 - break contact
FSL3	Centrifugal switch 3 - make contact
FSL4	Centrifugal switch 4 - make contact

Output signals



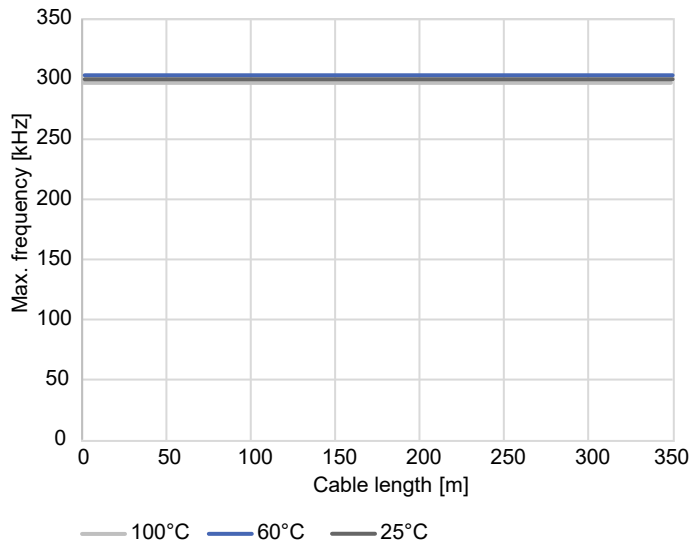
With positive direction of rotation / clockwise, with view on the encoder shaft



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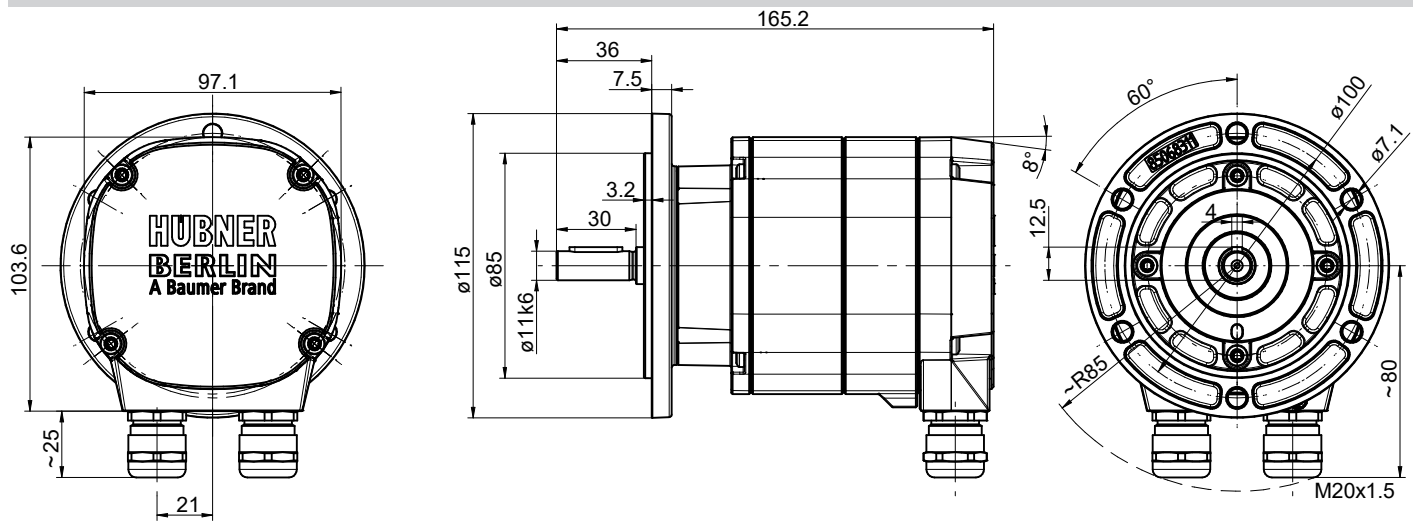
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Derating



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

Dimensions

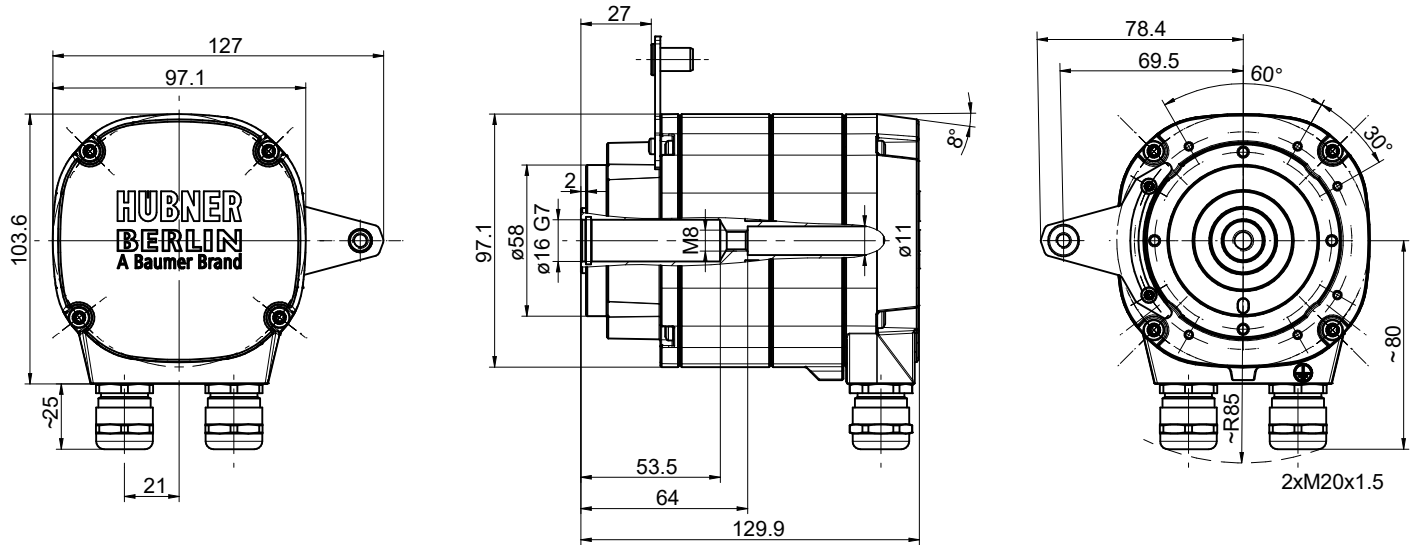


Solid shaft, cable gland

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Dimensions



Blind hollow shaft, cable gland (torque plate can be mounted at different positions)

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Ordering reference

Product	Shaft	Pulses per revolution, output	Connection	Comment	Material number
HOG1095	Solid shaft ø11 mm	1024, HTL-P	2 x Cable gland M20	FIX FSL	EHO1095-11731298
		2048, HTL-P	2 x Cable gland M20	FIX FSL	EHO1095-11731299
		Parameterization at factory ¹⁾	2 x Cable gland M20	FIX FSL	EHO1095-11731300
	Blind hollow shaft ø16G7 mm	1024, HTL-P	2 x Cable gland M20	FIX FSL	EHO1095-11731301
		2048, HTL-P	2 x Cable gland M20	FIX FSL	EHO1095-11731302
		Parameterization at factory ¹⁾	2 x Cable gland M20	FIX FSL	EHO1095-11731303

1) Please choose resolution, output stage and zero pulse (length and position) with your order

Resolution: 1...32768 ppr

Output stage: HTL-P or TTL

Zero pulse:

- 90°, K1=K2=1
- 180°, K1=0
- 180°, K2=0
- 180°, K1=1

Example for EHO1095 - 11731300: 5000 ppr, TTL, 180°, K2=0