Baumer
Passion for Sensors

RusAutomation

HOG 86

The incremental *HeavyDuty* benchmark for high demands

HOG 86 – the *HeavyDuty* encoder with reserve capacity.

The harsh environment of steel mills, wind-turbines or gantry cranes demands strong encoders. Reliable long-term operation is ensured by a mechanical design tailor-made to these applications. With the HOG 86 series Baumer Hübner presents a program for very high demands based on more than 60 year experiences as market leader in Heavy Duty. Our HOG 86 encoder platform provides the perfect match for you application.

Your benefits at a glance:

- Extremely robust
- Safe and precise
- Optimally installed

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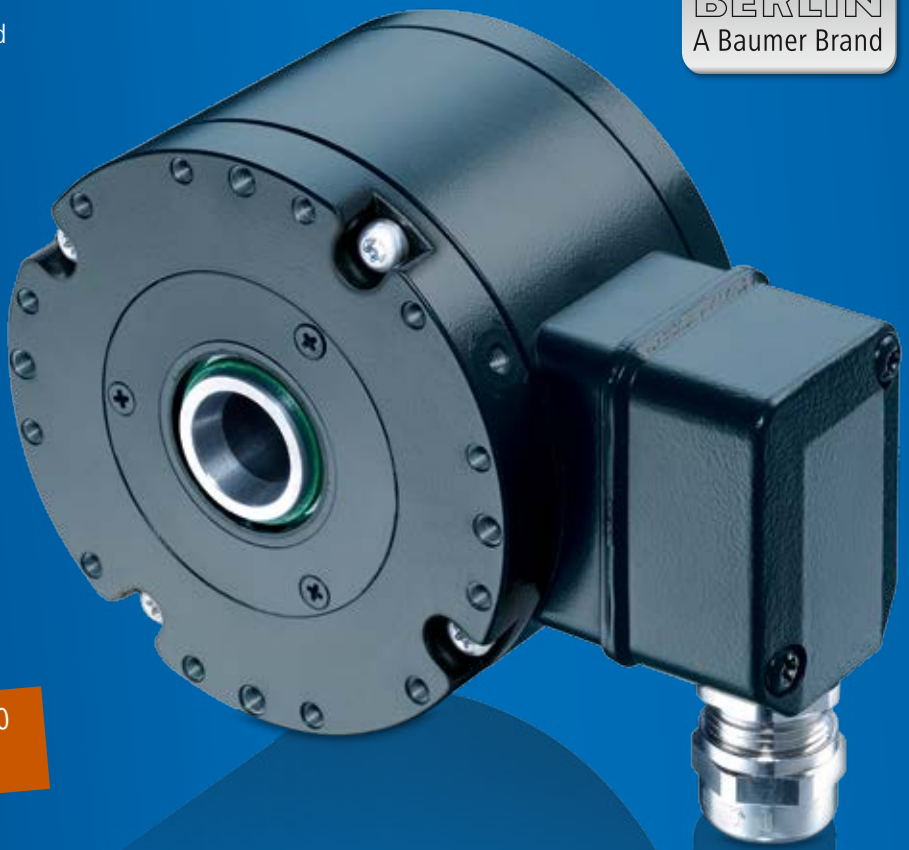


New – up to 5000 pulses/revolution

Robust design

Dual bearings

Insulated bearings

Interference-immune sensing by OptoASIC

High-quality seals IP 66

High temperatures

Cold climate

Extremely robust.

Fail safe in any environment

The solid, particularly sturdy housing with minimum 10 mm wall thickness is a prerequisite design benefit for reliable encoder operation. A special anti-corrosion coating ensures seawater resistance in compliance with category C4 and in line with DIN ISO 12944. During the installation of the HOG 86, when the cover lid of the terminal box has been removed, an additional encapsulation will keep electronics and sensing unit absolutely safe against dust, dirt or humidity.

Protected against bearing damage

Insulated bearings or optional hybrid bearings reliably protect the encoder electronics against inductive shaft currents. The current-insulated bearing design prevents discharge between the shaft and electronics up to 2.8 kV. Optionally available hybrid bearings provide approximately 5 times the service life of conventional all-steel bearings.

Safe at extreme temperatures

Long-term encoder operation allows operating temperatures from –40 °C to +100 °C.

Defying high shaft loads

Optimally spaced high-quality bearings at both shaft ends compensate high radial and axial shaft loads and ensure ultimate longevity thanks to their high load reserve capacity.

Robust against ambient impacts

Specialized housing and shaft seals ensure long-term compliance to IP 66 rating and protect the encoder against the ingress of substances such as dust, dirt or liquids.

Safe and precise.

Quick installation, less downtime

The optional Enhanced Monitoring System (EMS) monitors the vital encoder functionalities throughout the entire speed range, simplifies error tracking and will reduce expensive downtime. The multicolor LED at the encoder visualizes proper encoder supply and output driver operation as well as signal integrity. The error output reports the encoder activity status. EMS will signal connection errors right away at installation and hence speed up commissioning.

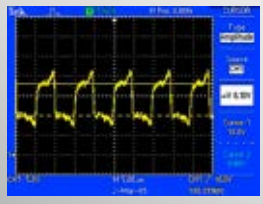
Reliable sensing technology

The interference-immune optical sensing technology by high-integrity OptoASIC defies major temperature fluctuations and harsh ambient conditions and ensures consistently high signal quality and precise measuring results.

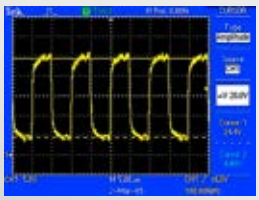
Excellent signal quality

High-performance, resilient output drivers ensure top signal quality even at long-distance routing with 550 m/350 m cable lengths – TTL/HTL-P respectively.

The Baumer HOG 86 is able to maintain the specified signal strength across 300 m at 100 °C at an output frequency of 100 kHz.
The signals of a competitor product come across with only half the strength which may cause evaluation problems.



Competitor product



Baumer HOG 86

Encoder combined with integrated speed switch

- Mechanical speed monitoring by the centrifugal principle
- Switching speed pre-selectable as default
- Tried and tested, energy self-sufficient technology

Encoder with redundant signals

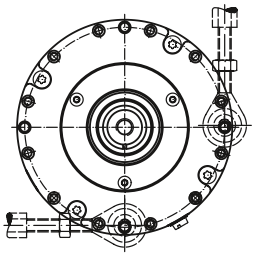
Two-channel acquisition of relative position or rotation speed by two independent signal outputs enables multiple signal evaluation with twice the availability.
The HOG 86 M accommodates two sensing systems that are galvanically insulated from each other. The optional redundant EMS functionality adds on another level in monitoring and diagnostics which makes HOG 86 M a first-choice product in safety-relevant applications.

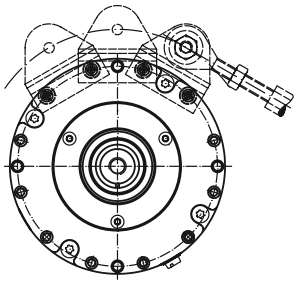
HOG 86E

- Focusing on the essential-function in the purest form
- The optimum product for virtually any demanding application
- Resolutions up to 2500 ppr
- Standard products available within 48 hours ex. works

Optimally installed.

Four mounting holes provided at front and rear allow for correct installation with the torque plate which can be attached to the front in up to 12 different angular positions.





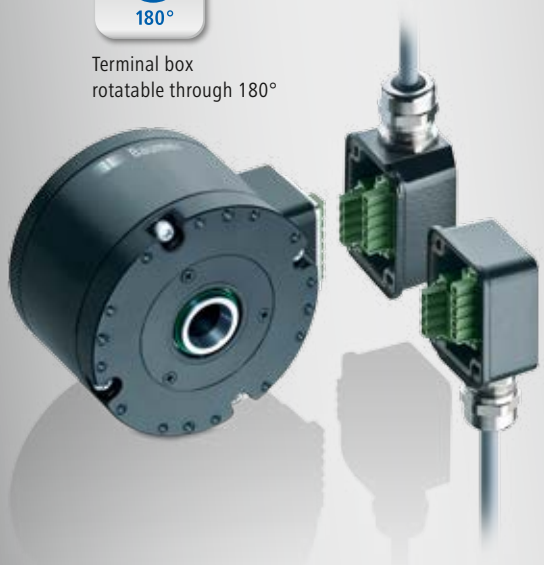
Choose the connection for the perfect match:

- Radial terminal box
- Flange connector
- Cable outlet
- Separate LWL-Outdoorbox

Easy, quick and safe connection with the *HeavyDuty* terminal box

- Easy installation with preassembled cable
- On-site modifications not required
- Cable outlet rotatable through 180°
- Optimum cable routing in any installation position
- Perfect for a long-term safe connection

Terminal box
rotatable through 180°



HOG 86 product overview


HOG 86 F


HOG 86 M


HOG 86 + FSL


HOG 86E

	HOG 86	HOG 86 M	HOG 86 + FSL	HOG 86E New
Sensing method	Optical			
Voltage supply and output circuit	5 VDC ±5 %, TTL/RS422, max. 550 m 9 ... 30 VDC, TTL/RS422, max. 550 m 9 ... 30 VDC, HTL-P/push pull, max. 350 m			
Output signals	K1, K2, K0 and inverted / Error output (only with EMS)			
Shaft type	Blind hollow shaft with ø12 mm or ø16 mm Cone shaft 1:10 with ø17 mm			
Connection	HOG 86 T: Terminal box, turn by 180° HOG 86 F: Flange connector M23 HOG 86 K: Cable outlet	2× Terminal box (Redundant sensing and signal output, with galvanic insulation)	2× Terminal box (Signal output and switching output)	HOG 86E T: Terminal box, turn by 180° HOG 86E F: Flange connector M23
Pulses per revolution	500 ... 5000	500 ... 5000	500 ... 5000	500 ... 2500
Operating temperature	–40 ... +100 °C –40 ... +90 °C (Cable outlet, cable not moving)	–40 ... +100 °C	–40 ... +100 °C	–40 ... +100 °C
Operating speed	≤10000 rpm (mechanical)			
Range of switching speed	–	–	850...4500 rpm adjusted ex works	–
Protection	IP 66			
Max. shaft load	≤350 N axial ≤450 N radial			
Explosion protection	II 3 G Ex nA IIC T4 Gc (gas), II 3 D Ex tc IIIC T135°C Dc (dust)			
Corrosion protection DIN ISO 12944	C4	C4	C4	–
Materials	Housing: Anti-corrosion aluminium alloy Hollow shaft: Stainless steel			
Options	Hybrid bearing, Function monitoring EMS	Hybrid bearing, Function monitoring EMS	Hybrid bearing, Function monitoring EMS, Redundant sensing system with two terminal boxes	–