Baumer
Passion for Sensors

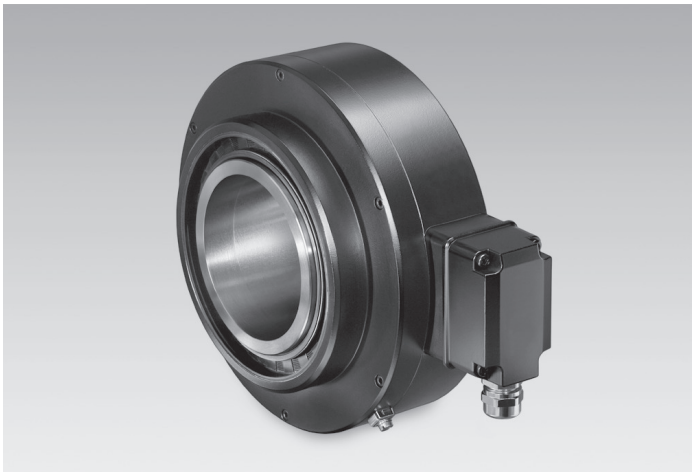
Incremental encoders

HOG 220

Through hollow shaft ø80...115 mm
1024 pulses per revolution

Overview

- Through hollow shaft ø80...115 mm
- Robust light-metal housing
- Output stage HTL or TTL
- Output stage TTL with regulator UB 9...26 VDC
- Large terminal box, turn by 180°



HTL TTL®
HÜBNER BERLIN
A Baumer Brand

Technical data

Technical data - electrical ratings

Voltage supply	9...30 VDC 5 VDC ±5 % 9...26 VDC
Consumption w/o load	≤100 mA
Pulses per revolution	1024
Phase shift	90 ° ±20°
Duty cycle	40…60 %
Reference signal	Zero pulse, width 90°
Sensing method	Optical
Output frequency	≤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
Approval	CE UL approval / E217823

Technical data - mechanical design

Size (flange)	ø227 mm
Shaft type	ø80...115 mm (through hollow shaft)

Technical data - mechanical design

Admitted shaft load	≤450 N axial ≤700 N radial
Protection DIN EN 60529	IP 56
Operating speed	≤3800 rpm (mechanical)
Operating torque typ.	50 Ncm
Rotor moment of inertia	102 kgcm² (ø100)
Material	Housing: aluminium alloy Shaft: stainless steel
Operating temperature	-30...+85 °C
Resistance	IEC 60068-2-6 Vibration 10 g, 10...2000 Hz IEC 60068-2-27 Shock 200 g, 6 ms
Corrosion protection	IEC 60068-2-52 Salt mist for ambient conditions C4 according to ISO 12944-2
Explosion protection	II 3 G Ex nA IIC T4 Gc (gas) II 3 D Ex tc IIIB T135°C Dc (dust)
Connection	Terminal box 2x terminal box (with option M)
Weight approx.	10,3 kg (ø100)

Optional

- Isolated through hollow shaft (≥500 VDC)
- Redundant sensing with two terminal boxes

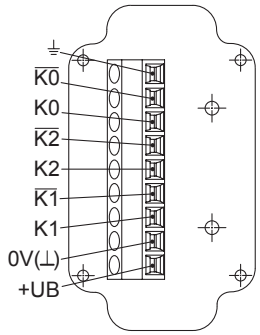
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2020-03-09

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Terminal assignment

View A *(see dimension)*
Connecting terminal terminal box, radial

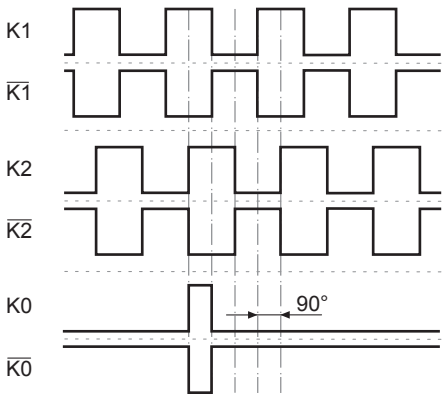


Terminal significance

+UB	Voltage supply
0V (⊥)	Ground
⏚	Earth ground (housing)
K1	Output signal channel 1
$\overline{K1}$	Output signal channel 1 inverted
K2	Output signal channel 2 (offset by 90° to channel 1)
$\overline{K2}$	Output signal channel 2 inverted
K0	Zero pulse (reference signal)
$\overline{K0}$	Zero pulse inverted

Output signals

HTL/TTL
At positive rotating direction *(see dimension)*



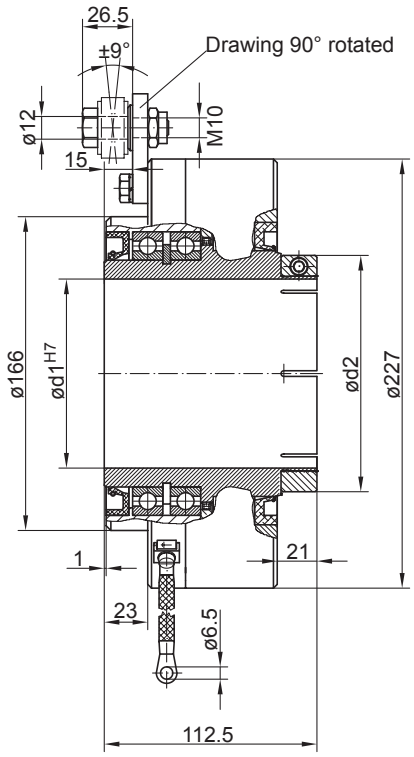
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HOG 220

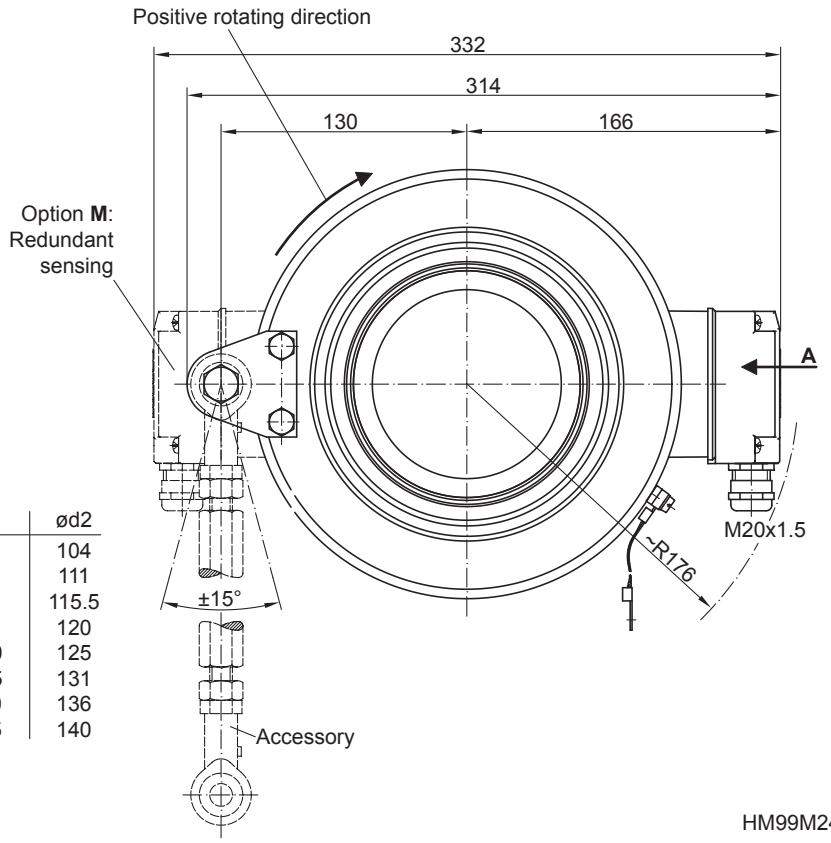
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Dimensions



ød1	ød2
80	104
85	111
90	115.5
95	120
100	125
105	131
110	136
115	140



HM99M24995

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HOG 220

Through hollow shaft ø80...115 mm
1024 pulses per revolution

Ordering reference

	HOG220	#	DN	1024	###	######
Product						
Incremental encoder	HOG220					
Redundant sensing						
Without redundant sensing						
With redundant sensing		M				
Output signals						
K1, K2, K0			DN			
Pulse number(1)						
1024				1024		
Voltage supply / output stage						
9...30 VDC / output stage HTL with inverted signals					I	
5 VDC / output stage TTL with inverted signals					TTL	
9...30 VDC / output stage TTL with inverted signals					R	
Shaft diameter						
Through hollow shaft ø80 mm						80H7
Through hollow shaft ø85 mm						85H7
Through hollow shaft ø90 mm						90H7
Through hollow shaft ø95 mm						95H7
Through hollow shaft ø100 mm						100H7
Through hollow shaft ø105 mm						105H7
Through hollow shaft ø106 mm						106H7
Through hollow shaft ø110 mm						110H7
Through hollow shaft ø115 mm						115H7

(1) Other pulse numbers on request.

Accessories

Mounting accessories	
11054922	Torque arm M12, length 145...170 mm
11054921	Torque arm M12, length 180...205 mm
11072741	Torque arm M12, length 480...540 mm (≥200 mm)
11054924	Torque arm M12 insulated, length 145...170 mm
11072723	Torque arm M12 insulated, length 480...540 mm (≥200 mm)
11069336	Mounting kit for torque arm size M12 and an earthing strap
Connectors and cables	
	Sensor cable for encoders HEK 8
Diagnostic accessories	
11075858	Analyzer for encoders HENQ 1100
11075880	Analyzer for encoders HENQ 1100 with a power pack

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