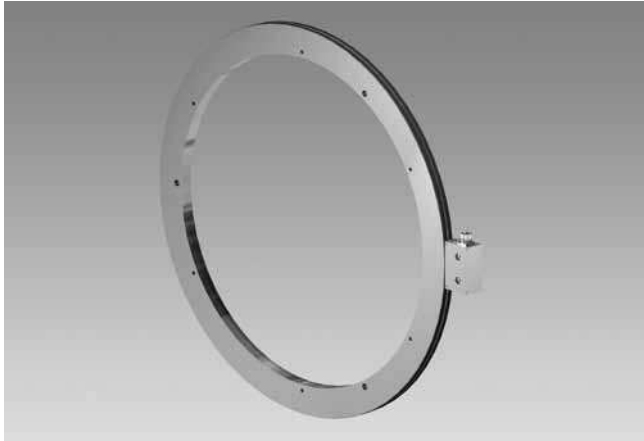


Encoders without bearing

Magnetic sensing, hollow shaft max. $\varnothing 740$ mm

Incremental resolution 512...32768

MHGE 800 - HDmag



MHGE 800 - Version for axial screw mounting

Technical data - electrical ratings (square-wave)

Voltage supply	4.75...30 VDC
Consumption w/o load	≤ 70 mA
Resolution (steps/turn)	512...32768
Phase shift	$90^\circ \pm 10^\circ$
Scan ratio	40...60 %
Reference signal	Zero pulse, width 90°
Sensing method	Magnetic
Output frequency	≤ 300 kHz
Output signals	A+, B+, R+, A-, B-, R-
Output circuit	HTL (power linedriver) TTL (RS422)
Interference immunity	DIN EN 61000-6-2
Emitted interference	DIN EN 61000-6-4

Technical data - electrical ratings (sinewave)

Voltage supply	5 VDC
Consumption w/o load	≤ 70 mA
Resolution (steps/turn)	512
Phase shift	$90^\circ \pm 5^\circ$
Reference signal	Zero pulse, width 90°
Sensing method	Magnetic
Output signals	A+, B+, R+, A-, B-, R-
Output circuit	Sine/cosine 1 Vpp
Harmonics share approx.	-40 dB
Offset sine/cosine amplitude	≤ 20 mV
Overlaying constant share	≤ 20 mV
Interference immunity	DIN EN 61000-6-2
Emitted interference	DIN EN 61000-6-4

Features

- Sinewave or square-wave signals
- Resolution max. 32768 pulses
- Robust and free from wear
- Electronics is fully encapsulated
- High protection standard
- Large tolerances: axial ± 3 mm, radial max. 2.2 mm
- Very compact dimensions
- Simple mounting, easy adaptation
- Several mounting possibilities

Optional

- DNV approval

Technical data - mechanical design

Sensor head	Standard signal processing
Dimensions (flange)	$\varnothing 813$ mm
Shaft	$\varnothing 650...740$ mm hollow shaft
Protection DIN EN 60529	IP 67 (sensor head), IP 68 (encoder wheel)
Operating speed	≤ 1000 rpm
Operating temperature	$-40...+100$ °C
Resistance	DIN EN 60068-2-6 Vibration 30 g, 55-2000 Hz DIN EN 60068-2-27 Shock 300 g, 2 ms
Axial tolerance	± 3 mm (wheel/head)
Radial tolerance	0.1...2.2 mm (wheel/head)
Accuracy of magnetic scale	± 50 "
Connection	Connector M23, 12-pin
Approvals	CE conform, ROHS compliant, Option: DNV approval

Encoders without bearing

Magnetic sensing, hollow shaft max. \varnothing 740 mm
Incremental resolution 512...32768

MHGE 800 - HDmag

Part number

MHGE 800 B5

			N		C
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See part number (pulses)

Voltage supply / signals

- S 5 VDC / sine
- R 4,75...30 VDC / square-wave (TTL)
- T 5 VDC \pm 5 % / square-wave (TTL)
- H 10...30 VDC / square-wave (HTL)
- U 5...30 VDC / square-wave (5 VDC = TTL / 10...30 VDC = HTL universal)

Mounting type / hollow shaft (\varnothing mm)

Screw mounting
G650, G690, G700, G740

Part number (pulses)

512	2048	8192	32768
1024	4096	16384	

Pulses at sinewave signals 512

Accessories

Connectors and cables

HEK 8	Sensor cable for encoders
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Encoders without bearing

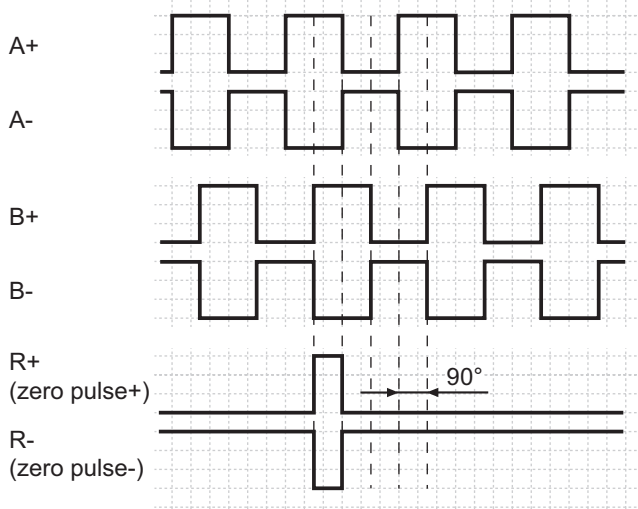
Magnetic sensing, hollow shaft max. $\varnothing 740$ mm

Incremental resolution 512...32768

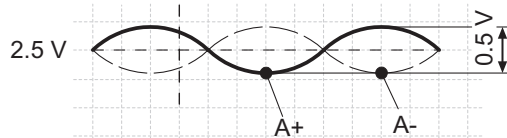
MHGE 800 - HDmag

Output signals

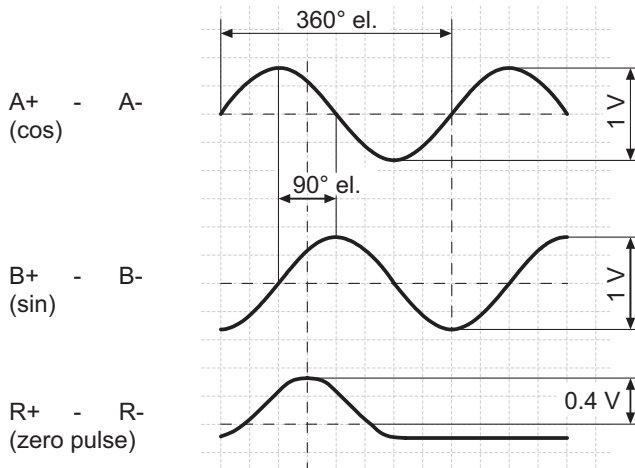
Version with square-wave signals HTL oder TTL
at positive rotating direction



Version with sinewave signals



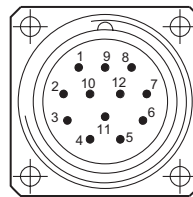
at positive rotating direction



Terminal assignment

View A - Connector M23, male contacts, counter-clockwise

Male	Assignment
Pin 1	B-
Pin 2	do not use
Pin 3	R+
Pin 4	R-
Pin 5	A+
Pin 6	A-
Pin 7	do not use
Pin 8	B+
Pin 9	do not use
Pin 10	0 V
Pin 11	do not use
Pin 12	UB



Encoders without bearing

Magnetic sensing, hollow shaft max. $\varnothing 740$ mm
Incremental resolution 512...32768

MHGE 800 - HDmag

Dimensions

Version for axial screw mounting

