

Incremental encoders

Solid shaft with EURO flange B10

25...1250 pulses per revolution

OG 9



OG 9

Features

- Encoder with solid shaft $\varnothing 11$ mm
- Optical sensing
- EURO flange B10
- Logic level TTL with regulator UB 9...26 VDC
- Logic level HTL with power linedriver
- Temperature max. +100 °C

Optional

- Housing foot

Technical data - electrical ratings

Voltage supply	9...30 VDC 5 VDC ± 5 % 9...26 VDC
Consumption w/o load	< 100 mA
Pulses per revolution	25...1250
Phase shift	90° ± 20 °
Scan ratio	40...60 %
Reference signal	Zero pulse, width 90°
Sensing method	Optical
Output frequency	≤ 170 kHz
Output signals	K1, K2, K0 + inverted
Output stages	HTL-P (power linedriver) TTL/RS422
Interference immunity	EN 61000-6-2
Emitted interference	EN 61000-6-3
Approvals	CE, RoHS, UL approval / E256710

Technical data - mechanical design

Size (flange)	$\varnothing 115$ mm
Shaft type	$\varnothing 11$ mm solid shaft
Shaft loading	≤ 250 N axial ≤ 350 N radial
Flange	EURO flange B10
Protection DIN EN 60529	IP 55
Operating speed	≤ 12000 rpm (mechanical)
Operating torque typ.	1 Ncm
Rotor moment of inertia	280 gcm ²
Materials	Housing: aluminium die-cast Shaft: stainless steel
Operating temperature	-30...+100 °C
Resistance	IEC 60068-2-6 Vibration 10 g, 10-2000 Hz IEC 60068-2-27 Shock 100 g, 6 ms
Explosion protection	II 3 G Ex nA IIC T4 Gc (gas) II 3 D Ex tc IIIB T135°C Dc (dust)
Connection	Terminal box
Weight approx.	980 g

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Part number

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	<u>Voltage supply / signals</u>
-	9...30 VDC / output circuit HTL
I	9...30 VDC / output circuit HTL with inverted signals (for output signals D and DN)
TTL	5 VDC / output circuit TTL with inverted signals (for output signals D and DN)
R	9...26 VDC (<95 pulses), 9...30 VDC (≥95 pulses) / output circuit TTL with inverted signals (for output signals DN)

Pulse number - see table

Output signals

E	K1
D	K1, K2
DN	K1, K2, K0

Pulse number

25	180	500	1000
120	256	512	1024
128	360	720	1250

Other pulse numbers on request.

Accessories

Connectors and cables

HEK 8	Sensor cable for encoders
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Mounting accessories

K 35	Spring disk coupling for solid shaft ø6...12 mm
K 50	Spring disk coupling for solid shaft ø11...16 mm
K 60	Spring disk coupling for solid shaft ø11...22 mm

Diagnostic accessories

HENQ 1100	Analyzer for encoders
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Incremental encoders

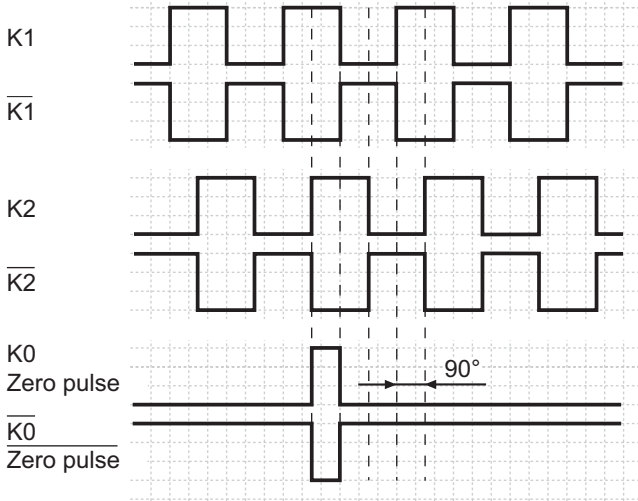
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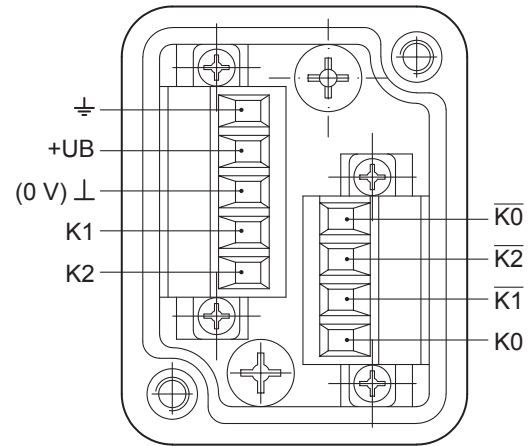
Output signals

At positive rotating direction

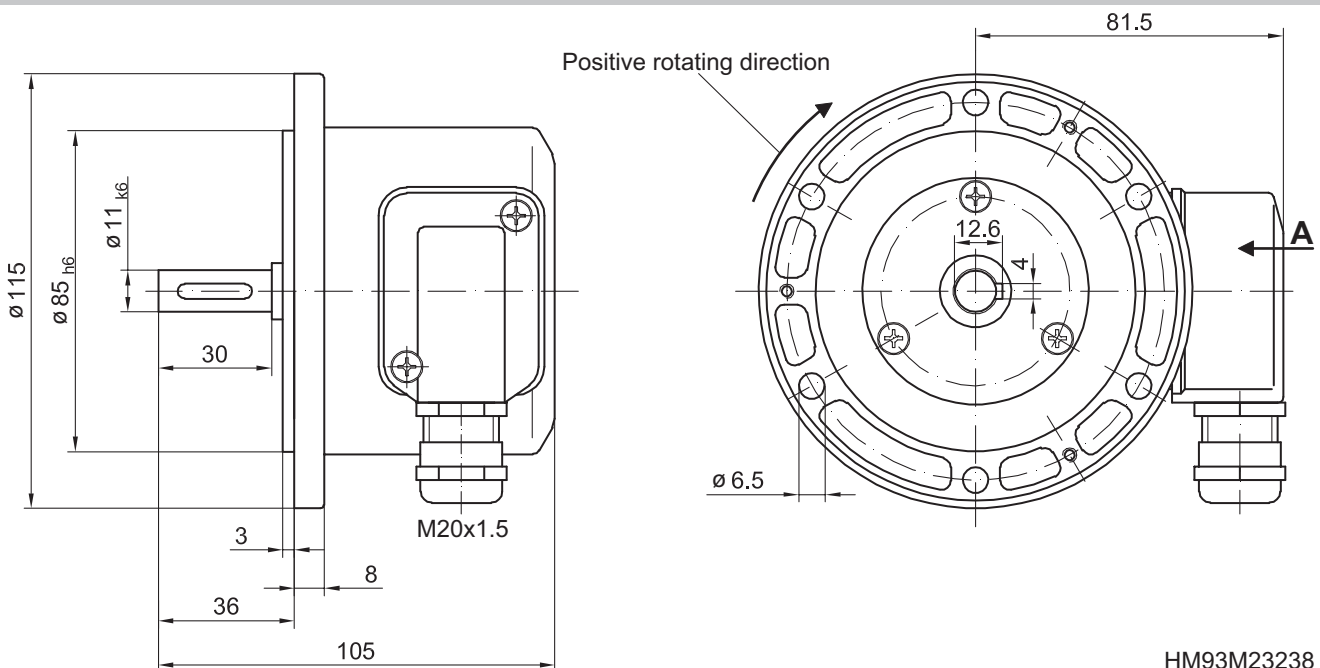


Terminal assignment

View A - Connecting terminal in terminal box



Dimensions



HM93M23238

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