



Incremental Encoder with hollow shaft

Features

Incremental encoder with integrated OPTO-ASIC, thus high interference immunity
 Speed up to 12,000 RPM
 Resolution up to 2048 pulses

Electrical data

Supply voltage	5 VDC $\pm 10\%$ and 10...30 VDC
Current consumption	60 mA (without load)
Scanning frequency	50 kHz (< 500 pulses) 100 kHz (> 500 pulses)

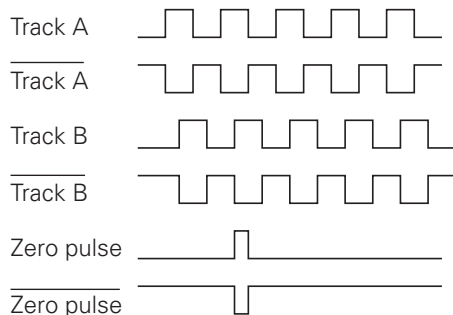
Output stages	5 VDC 10...30 VDC	Line driver to RS422 Push-pull output, short-circuit-protected
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Electric connector	The electric connector must not be plugged on or removed whilst under voltage
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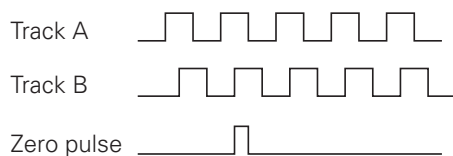
Output signals

Signals with clockwise sense of rotation when looking at the flange

Signal outputs 5 VDC line driver



Signal outputs 10...30 VDC



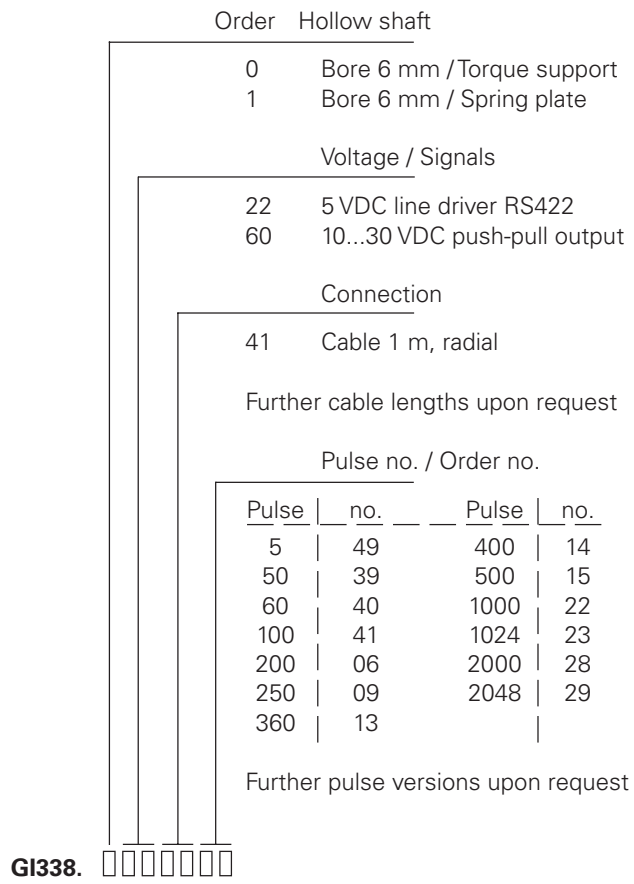
Mechanical data

RPM value	Max. 12,000 RPM
Operating torque	< 0.21 Ncm (3,000 RPM / 20 °C)
Material	
Flange	Aluminum
Housing	Black Polyamide
Shaft	Stainless steel
Weight	Approximately 85 g

Ambient conditions

Ambient temperature	-20...+85 °C
Protection to	
Shaft	IP 64 ball bearing with seals
Housing	IP 43 through shaft IP 65 with sealing cover
Relative humidity	Max. 95 %, non-condensing
Endurance	
Vibration	IEC 68, Section 2 - 6 $\leq 100 \text{ m/s}^2 / 10\text{-}200 \text{ Hz}$
Shock	IEC 68, Section 2 - 27 $\leq 500 \text{ m/s}^2 / 11 \text{ ms}$
Interference immunity	EN 50082-2 EN 61000-4 -2 to 4 Severity grade 3
Emitted interference	EN 50081-2

Order designation



Pin assignment

„Line driver 5 VDC“

Cable color	Assignment
brown	UB
green	Track A
red	Track A inv.
yellow	Track B
blue	Track B inv.
pink	Track N (zero pulse)
gray	Track N inv. (zero pulse inv.)
white	GND
Cable shield	Shield connected to flange

„Push-pull output 10...30 VDC“

Cable color	Assignment
brown	UB
green	Track A
yellow	Track B
pink	Track N (zero pulse)
white	GND
Cable shield	Shield connected to flange

Recommendation: Please use leads twisted in pairs for cable lengths of more than 10 m

Dimensions and cutout size

