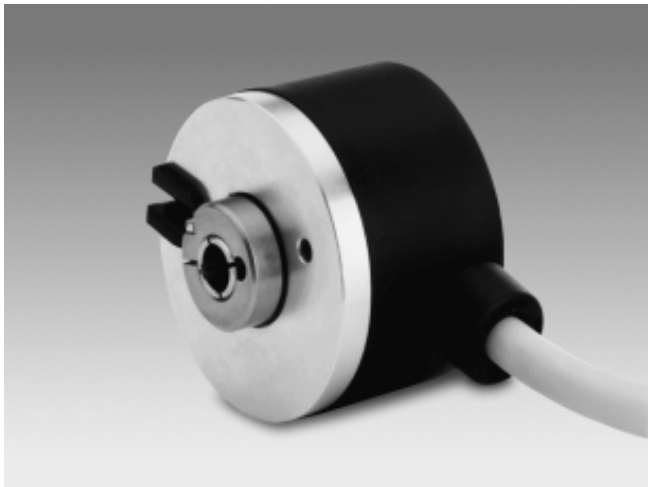
Incremental Encoder with hollow shaft

GI338



Features

- Encoder with compact design
- Speed up to 12000 rpm
- Resolution up to 2048 pulses

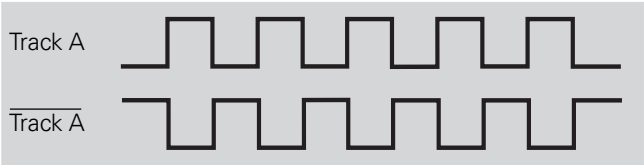
Electrical data

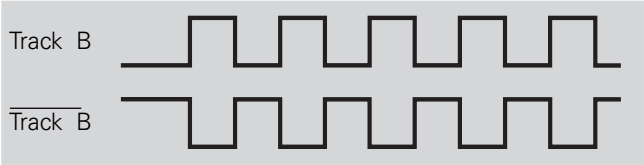
Operating voltage	5 VDC ±10 % or 10...30 VDC
Current consumption	60 mA (without load)
Scanning frequency	50 kHz (<500 pulses) 100 kHz (>500 pulses)
Output stages	
5 VDC	Line driver to RS422
10...30 VDC	Push-pull, short-circuit-proof

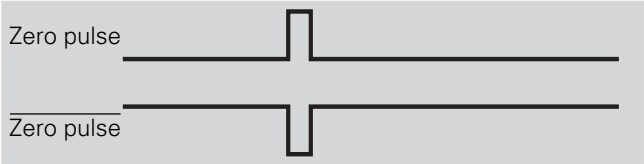
Output signals

Signals with clockwise rotation when looking at the flange.

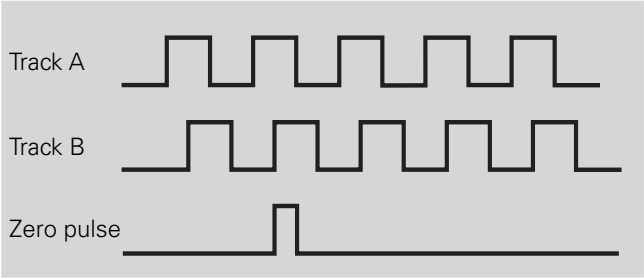
Output signals 5 VDC, line driver







Output signals 10...30 VDC, push-pull



Mechanical data

Speed	Max. 6000 rpm (IP64) Max. 12000 rpm (IP42)
Operating torque	< 0.021 Nm (3000 rpm / 20 °C)
Material	
Flange	Aluminum
Housing	Black polyamide
Shaft	Stainless steel
Weight	Approx. 85 g

Ambient conditions

Operating temperature	-20...+85 °C
Protection type	
Hollow shaft	IP 64 ball bearing with sealing lips
Housing	IP 43 through shaft IP 65 with sealing cap
Humidity	Max. relative humidity 95 %, non-condensing
Resistance	
Vibration	DIN EN 60068-2-6 ≤100 m/s²/ 16-200 Hz
Shock	DIN EN 60068-2-27 ≤500 m/s² / 11 ms
Interference resistance	DIN EN 61000-6-2
Emitted interference	DIN EN 61000-6-4

GI338

Order designation

Order No.	Hollow Shaft
0	6 mm dia., torque support, IP64
1	6 mm dia., coupling spring, IP64
3	8 mm dia., end shaft, coupling spring IP 64
4	6 mm dia., torque support, IP42
7	12 mm dia., end shaft, coupling spring IP 64

Operating Voltage / Signals

22	5 VDC / Line driver RS422
60	10...30 VDC / Push-pull output

Connection

41	Cable 1 m, radial

Pulse No. / Order No.

Pulse	No.	Pulse	No.
5	49	400	14
50	39	500	15
60	40	1000	22
100	41	1024	23
200	06	2000	28
250	09	2048	29
360	13		

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Additional pulse numbers and cable lengths on request.

Connection 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

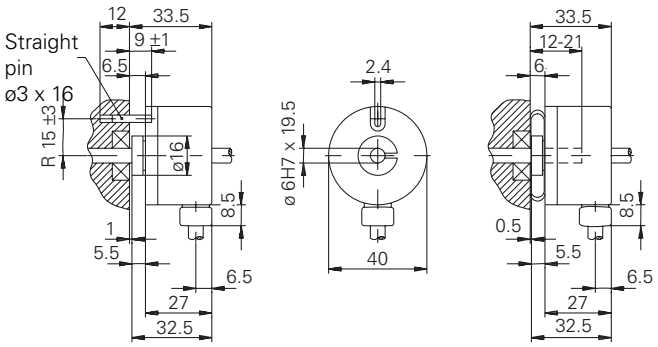
Push-pull output 10...30 VDC

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

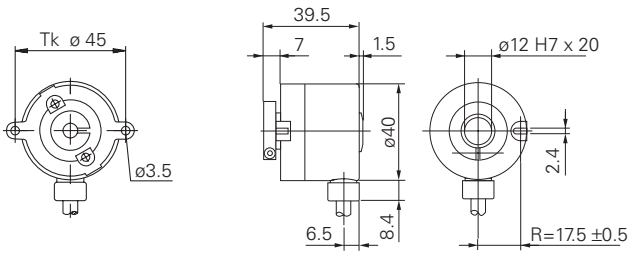
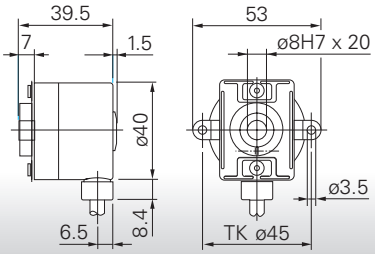
Recommendation: Please use wires twisted in pairs for cable lengths of more 10 m or more.

Dimensions

GI338 with hollow shaft, 6 mm dia.



GI338 with end shaft, 12 mm dia.



GI338 with end shaft, 8 mm dia.