Sine encoders

Through hollow shaft ø20 to ø27 mm

1024, 2048 sinewave cycles per turn

ITD 42 A 4 Y79

ITD 42 A 4 Y79 with through hollow shaft

Features

- **Encoder with through hollow shaft ø20...27 mm**
- **Up to 2048 sinewaves cycles per turn**
- **Sine output signals 1 Vpp**
- **Mounting by torque support**
- **Cable output radial**

Optional

- **Cable with connector**

Technical data - electrical ratings

Voltage supply	5 VDC ±10 % 8...30 VDC
Reverse polarity protection	Yes
Consumption w/o load	≤90 mA
Sinewave cycles per turn	1024...2048
Sensing method	Optical
Output frequency	≤180 kHz (-3 dB)
Output signals	A, B, 0
Output stages	SinCos 1 Vpp

Technical data - mechanical design

Size (flange)	ø80 mm
Shaft type	ø20 mm (through hollow shaft) ø22 mm (through hollow shaft) ø25 mm (through hollow shaft) ø27 mm (through hollow shaft)
Mounting kit	050
Protection DIN EN 60529	IP 65
Operating speed	≤5000 rpm
Starting torque	≤0.015 Nm (+20 °C)
Materials	Housing: aluminium, black, powder-coated Shaft: stainless steel
Operating temperature	-20...+85 °C
Relative humidity	90 % non-condensing
Resistance	DIN EN 60068-2-6 Vibration 10 g, 55-2000 Hz DIN EN 60068-2-27 Shock 30 g, 11 ms
Connection	Cable 1 m
Weight approx.	600 g

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Part number

ITD 42 A 4 Y79			NI	KR1	S		IP65	050

Mounting kit
- 050 Mounting kit 050

Protection
- IP65 IP 65

Through hollow shaft
- 20 ø20 mm, clamping ring
- 22 ø22 mm, clamping ring
- 25 ø25 mm, clamping ring
- 27 ø27 mm, clamping ring

Operating temperature
- S -20...+85 °C

Connection
- KR1 Cable 1 m, radial

Output signals
- NI A+, A-, B+, B-, N+, N-

Voltage supply / signals
- M 5 VDC / sine 1 Vpp
- S 8...30 VDC / sine 1 Vpp

Sinewave cycles - see table

Sinewave cycles

1024	2048

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1024, 2048 sinewave cycles per turn

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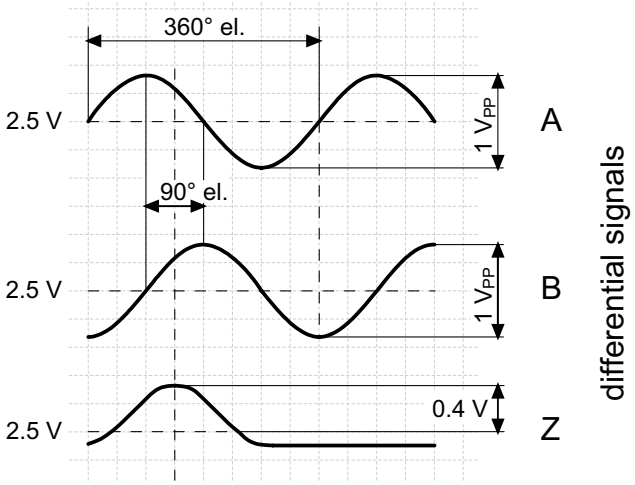
Output signals

Clockwise rotation when looking at the mounting side.



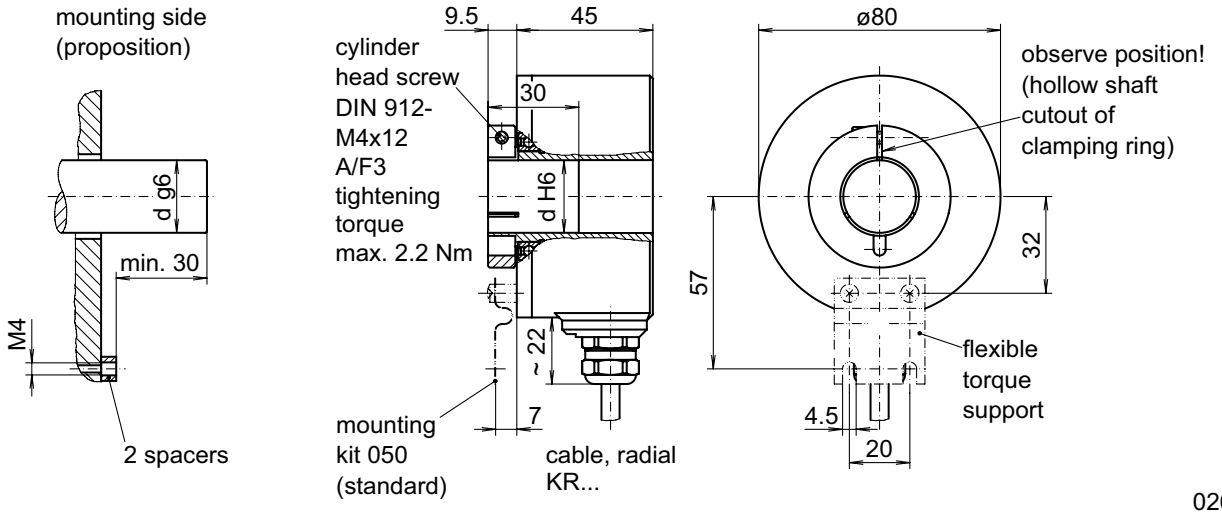
Terminal assignment

Core colour	Assignment
green	Track A +
brown	Track A –
grey	Track B +
black	Track B –
pink	Track N +
white	Track N –
red	UB
blue	GND
yellow	UB-Sense
violet	GND-Sense
transparent	Shield/Housing

Output signal level

Outputs	Sine
Output amplitude A + B	1 V_{PP} at Z_0 = 120 Ω
Output amplitude N	approx. 0,4 V (useable part) at Z_0 = 120 Ω

Dimensions



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