Incremental encoders

Through hollow shaft ø20 to ø27 mm

2000…10000 pulses per revolution

ITD 41 A 4 Y79

ITD 41 A 4 Y79 with through hollow shaft

Features

- **Encoder with through hollow shaft ø20...27 mm**
- **Max. 10000 pulses per revolution**
- **Optical sensing method**
- **Mounting by torque support**
- **TTL or HTL output signals**
- **Cable output radial**

Optional

- **Cable with connector**
- **Extended operating temperature range**

Technical data - electrical ratings

Voltage supply	5 VDC ±5 % 8...30 VDC
Reverse polarity protection	Yes
Consumption w/o load	≤100 mA
Pulses per revolution	2000...10000
Reference signal	Zero pulse, width 90°
Sensing method	Optical
Output frequency	≤300 kHz (TTL) ≤160 kHz (HTL)
Output signals	A, B, N + inverted
Output stages	TTL linedriver (short-circuit proof) HTL push-pull (short-circuit proof)
Interference immunity	DIN EN 61000-6-2
Emitted interference	DIN EN 61000-6-3

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 ≤3000 rpm IP 65 (>70 °C)
Starting torque	≤0.015 Nm (+20 °C)
Materials	Housing: aluminium, black, powder-coated Shaft: stainless steel
Operating temperature	-20...+70 °C -20...+100 °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.	580 g

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Part number

ITD 41 A 4 Y79			NI	KR1				050

Mounting kit
- 050 Mounting kit 050

Protection
- IP54 IP 54
- IP65 IP 65

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

Operating temperature
- S -20...+70 °C
- E -20...+100 °C

Connection
- KR1 Cable 1 m, radial

Output signals
- NI A, A inv, B, B inv, 0, 0 inv

Voltage supply / signals
- T 5 VDC / TTL level, linedriver
- H 8...30 VDC / HTL level, push-pull
- R 8...30 VDC / TTL level, linedriver

Pulse number - see table

Pulse number

2000	2500	3600	5000
2048	3072	4096	10000

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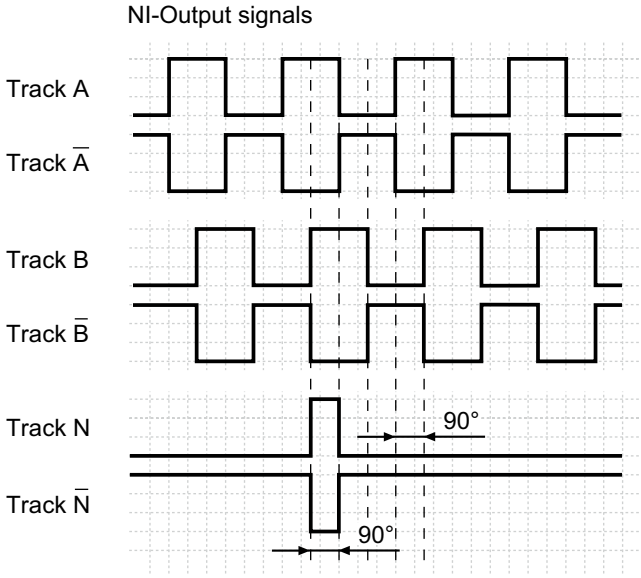
Output signals

Clockwise rotation when looking at the mounting side.

NI-Output signals



Terminal assignment

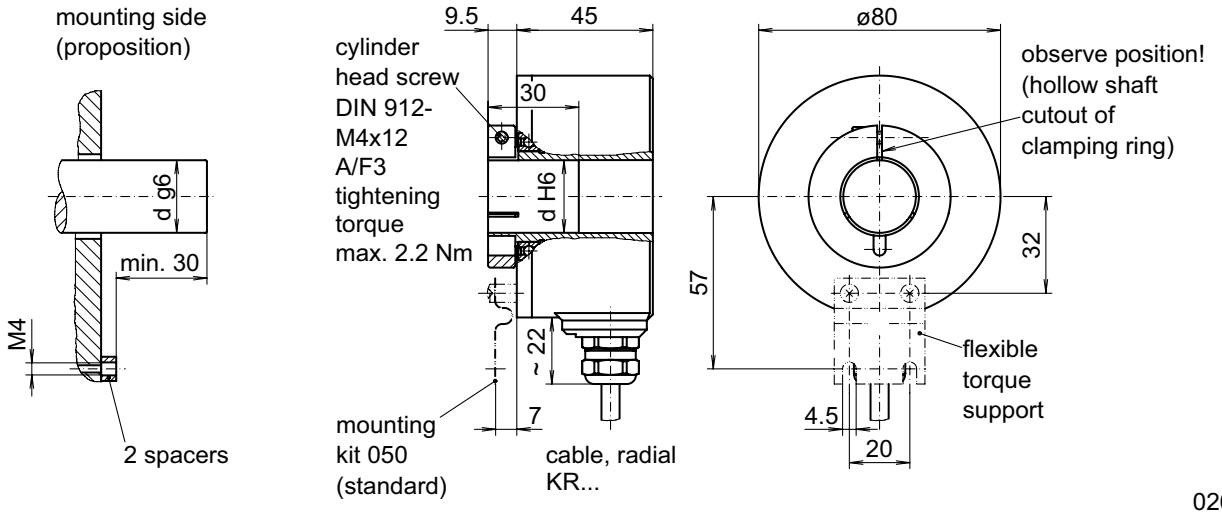
Core colour	Assignment
brown	Track A
green	Track A inv.
grey	Track B
pink	Track B inv.
red	Track N
black	Track N inv.
brown 0,5 mm²	UB
white 0,5 mm²	GND
blue	UB-Sense
white	GND-Sense
transparent	Shield/Housing

Trigger level

Outputs	**Linedriver**
Output level High	≥2.4 V
Output level Low	≤0.5 V
Load	≤70 mA

Outputs	**Push-pull** short-circuit proof
Output level High	≥UB -3 V
Output level Low	≤1.5 V
Load	≤70 mA

Dimensions



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