Incremental encoders

Through hollow shaft ø20 to ø27 mm

200…2048 pulses per revolution

ITD 40 A 4 Y79

ITD 40 A 4 Y79 with through hollow shaft

Features

- **Encoder with through hollow shaft ø20...27 mm**
- **Max. 2048 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	200...2048
Reference signal	Zero pulse, width 90°
Sensing method	Optical
Output frequency	≤120 kHz
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...27 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 100 g, 6 ms
Connection	Cable 1 m
Weight approx.	600 g

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Part number

ITD 40 A 4 Y79			NI	KR1		25		050

Mounting kit
050 Mounting kit 050

Protection
IP54 IP 54
IP65 IP 65

Through hollow shaft
25 ø25 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

200	500	720	1024
360	512	1000	2048

Other diameters on request.

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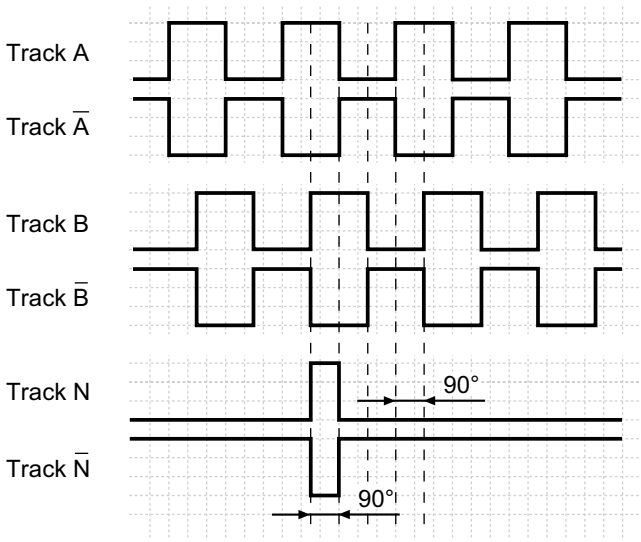
Output signals

Clockwise rotation when looking at the mounting side.

NI-Output signals



Terminal assignment

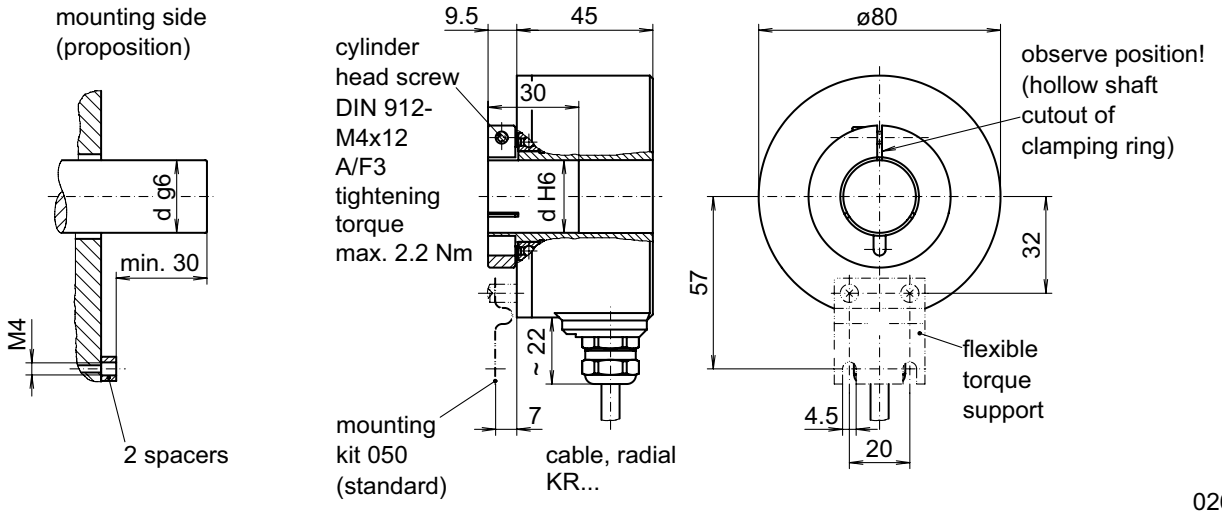
Core colour	Assignment
brown	Track A
green	Track A inv.
grey	Track B
pink	Track B inv.
red	Track N
black	Track N inv.
brown 0,5 mm²	UB
white 0,5 mm²	GND
blue	UB-Sense
white	GND-Sense
transparent	Shield/Housing

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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