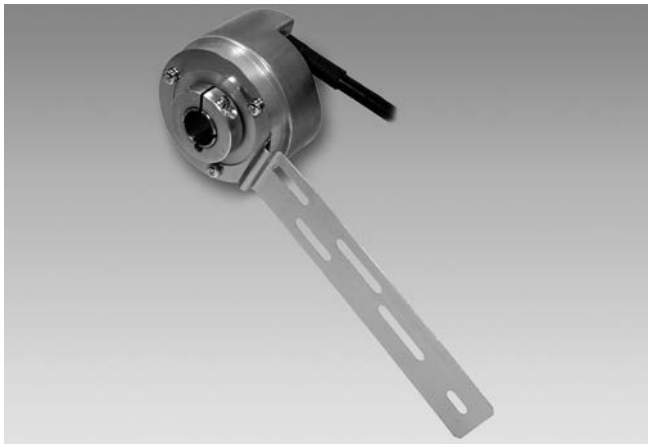
Incremental encoders

Through hollow shaft ø14 mm

512...2048 pulses per revolution

ITD2LH00



ITD2LH00 with through hollow shaft

Features

- **Design 58 mm**
- **Optical sensing method**
- **Electrical interface TTL or HTL**
- **Through hollow shaft 14 mm**
- **Cable, 8-wire, tangential**
- **Pulses per revolution 512, 1024, 2048**

Technical data - electrical ratings

Voltage supply	5 VDC ±5 % 8...30 VDC
Reverse polarity protection	Yes
Short-circuit proof	Yes (HTL) Yes (TTL, max. 1 s and 1 signal)
Consumption w/o load	≤50 mA
Pulses per revolution	512...2048
Phase shift	90° ±10°
Scan ratio	40...60 %
Reference signal	Zero pulse, width 90° ±10 %
Sensing method	Optical
Output frequency	≤300 kHz (TTL) ≤160 kHz (HTL)
Output signals	A, B, N + inverted
Output stages	TTL/RS422 HTL/push-pull
Interference immunity	DIN EN 61000-6-2
Emitted interference	DIN EN 61000-6-3

Technical data - mechanical design

Size (flange)	ø58 mm
Shaft type	ø14 mm (through hollow shaft)
Motor shaft tolerance	0.25 mm axial 0.1 mm radial
Mounting kit	021
Protection DIN EN 60529	IP 65
Operating speed	≤6000 rpm
Starting torque	≤0.02 Nm (+20 °C) ≤0.15 Nm (-30 °C)
Materials	Housing: aluminium Shaft: stainless steel
Operating temperature	-30...+100 °C
Relative humidity	90 % non-condensing
Resistance	DIN EN 60068-2-6 Vibration 20 g, 60-2000 Hz DIN EN 60068-2-27 Shock 100 g, 6 ms
Connection	Cable 0.6 m, tangential Cable 1 m, tangential
Weight approx.	197 g (at cable 0.6 m), 222 g (at cable 1 m)

ITD2LH00

Part number

ITD2LH00			NI		E	14	IP65	021

Mounting kit
- 021 Mounting kit 021

Protection
- IP65 IP 65

Through hollow shaft
- 14 ø14 mm

Operating temperature
- E -30...+100 °C

Connection
- KT0.6 Cable 0.6 m, tangential, open cable end
- KT1 Cable 1 m, tangential, open cable end

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

Pulse number - see table

Pulse number

512*	1024	2048*

* On request

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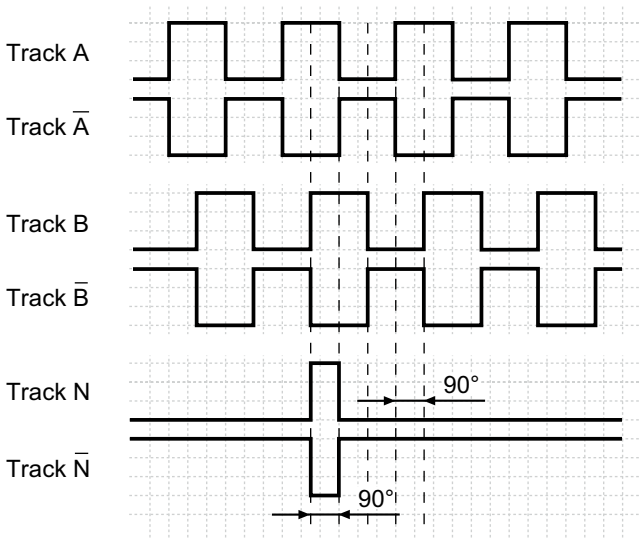
Output signals

Clockwise rotation when looking at the mounting side.

NI-Output signals



Terminal assignment

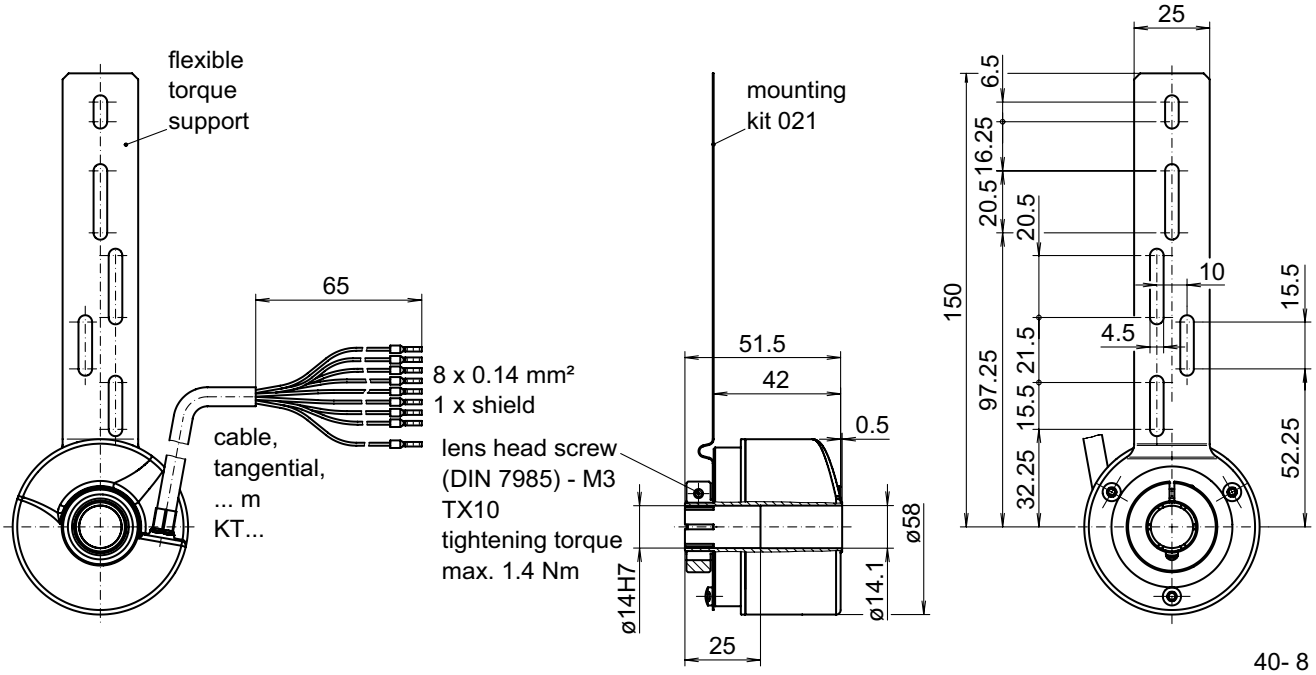
Core colour	Assignment
brown	UB
white	GND
green	Track A
yellow	Track A inv.
grey	Track B
pink	Track B inv.
blue	Track N
red	Track N inv.

Trigger level

Outputs	**TTL/RS422**
Output level High	≥2.5 V
Output level Low	≤0.5 V
Load	≤20 mA

Outputs	**HTL/Push-pull**
Output level High	≥UB -3 V
Output level Low	≤1.5 V
Load	≤20 mA

Dimensions



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