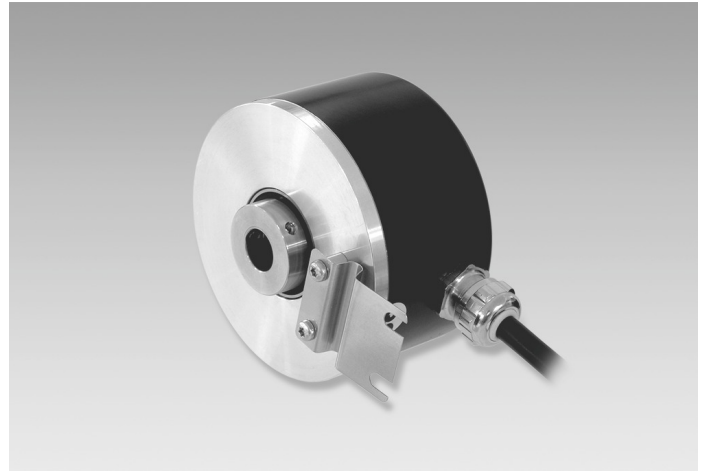


ITD 41 A 4

Blind hollow shaft $\varnothing 10$ to $\varnothing 16$ mm
2000...10000 pulses per revolution

Overview

- Encoder with blind hollow shaft $\varnothing 10$...16 mm
- Max. 10000 pulses per revolution
- Optical sensing method
- Mounting by torque support
- TTL or HTL output signals
- Cable output radial or axial



Technical data

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	EN 61000-6-2
Emitted interference	EN 61000-6-3

Technical data - mechanical design

Size (flange)	$\varnothing 80$ mm
Shaft type	$\varnothing 10$...16 mm (blind hollow shaft)

Technical data - mechanical design

Mounting kit	050
Protection EN 60529	IP 65
Operating speed	≤ 8000 rpm ≤ 5000 rpm IP 65 (> 70 °C)
Starting torque	≤ 0.01 Nm ($+20$ °C)
Material	Housing: aluminium, black, powder-coated Shaft: stainless steel
Operating temperature	-20 ... $+70$ °C -20 ... $+100$ °C
Relative humidity	90 % non-condensing
Resistance	EN 60068-2-6 Vibration 10 g, 55-2000 Hz EN 60068-2-27 Shock 30 g, 11 ms
Connection	Cable 1 m
Weight approx.	550 g

Optional

- Cable with connector
- Extended operating temperature range

ITD 41 A 4

Blind hollow shaft $\varnothing 10$ to $\varnothing 16$ mm
2000...10000 pulses per revolution

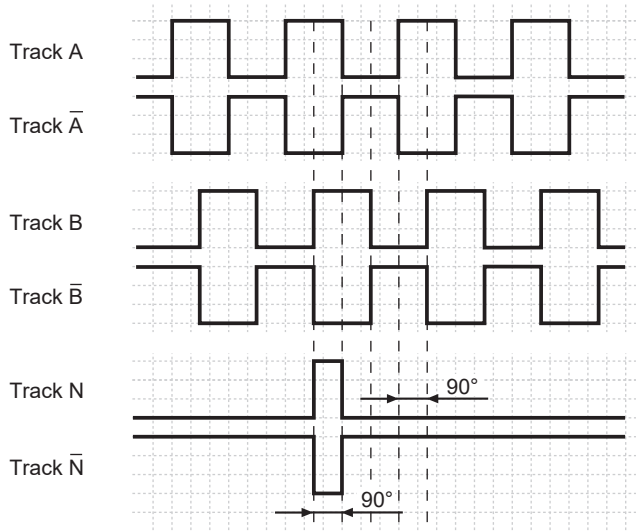
Terminal assignment

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 mm ²	UB
white 0,5 mm ²	GND
blue	UB-Sense
white	GND-Sense
transparent	Shield/Housing

Output signals

Clockwise rotation when looking at the mounting side.

NI-Output signals



Trigger level

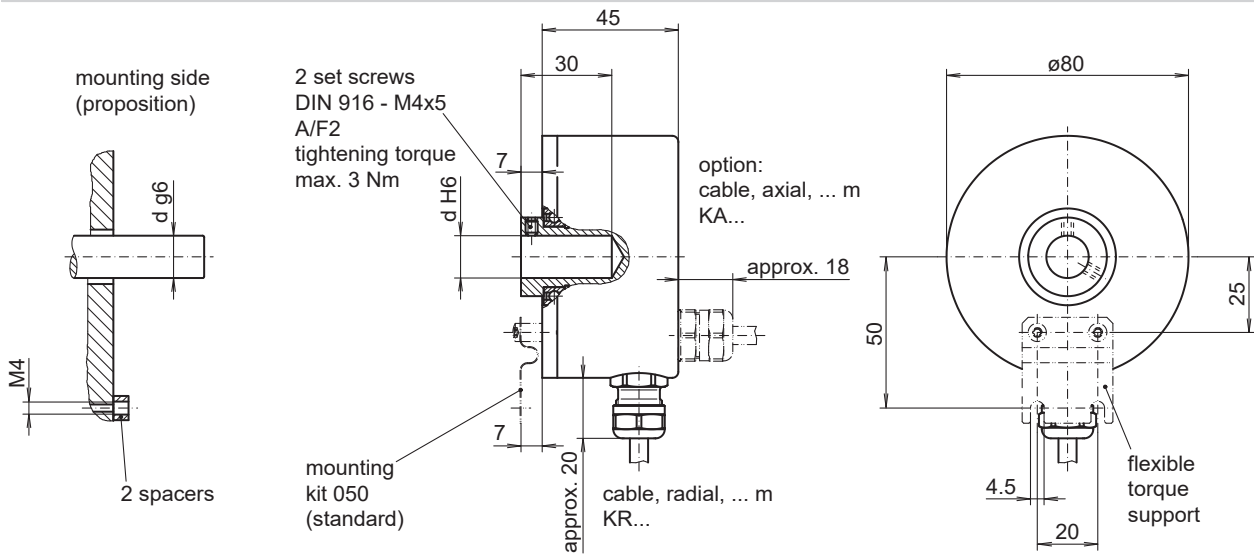
Outputs	Linedriver
Output level High	≥ 2.4 V
Output level Low	≤ 0.5 V
Load	≤ 70 mA

Outputs	Push-pull short-circuit proof
Output level High	$\geq UB - 3$ V
Output level Low	≤ 1.5 V
Load	≤ 70 mA

ITD 41 A 4

Blind hollow shaft $\varnothing 10$ to $\varnothing 16$ mm
2000...10000 pulses per revolution

Dimensions



026- 5

ITD 41 A 4

 Blind hollow shaft $\varnothing 10$ to $\varnothing 16$ mm
 2000...10000 pulses per revolution

Ordering reference

		ITD 41 A 4	#####	#	NI	#####	#	##	####	050
Product		ITD 41 A 4								
		ITD 41 A 4								
Pulse number										
	2000		2000							
	2048		2048							
	2500		2500							
	3072		3072							
	3600		3600							
	4096		4096							
	5000		5000							
	10000		10000							
Voltage supply / signals										
	5 VDC / TTL level, linedriver				T					
	8...30 VDC / HTL level, push-pull				H					
	8...30 VDC / TTL level, linedriver				R					
Output signals										
	A, A inv, B, B inv, N, N inv				NI					
Connection										
	Cable 1 m, radial								KR1	
	Cable 1 m, axial								KA1	
Operating temperature										
	-20...+70 °C								S	
	-20...+100 °C								E	
Blind hollow shaft										
	$\varnothing 10$ mm									10
	$\varnothing 12$ mm									12
	$\varnothing 14$ mm									14
	$\varnothing 15$ mm									15
	$\varnothing 16$ mm									16
Protection										
	IP 54									IP54
	IP 65									IP65
Mounting kit										
	Mounting kit 050									050

Other diameters on request.