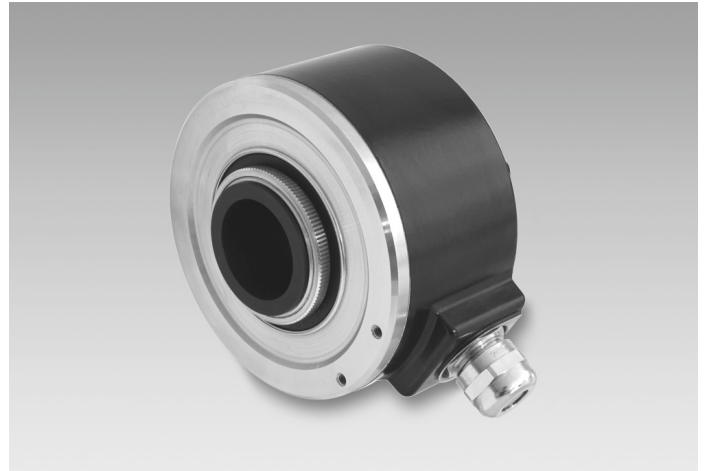


ITD 41 A 4 Y100

Through hollow shaft $\varnothing 20$ mm, $\varnothing 25$ mm
2000...10000 pulses per revolution

Overview

- Robust encoder with isolated through hollow shaft $\varnothing 20$ mm, $\varnothing 25$ mm
- Bolted bearing for maximum reliability
- Max. 10000 pulses per revolution
- Optical sensing method
- Electrically isolated mounting
- Wide temperature range from $-40...+100$ °C



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	$\varnothing 20$ mm (through hollow shaft) $\varnothing 25$ mm (through hollow shaft)

Technical data - mechanical design

Mounting kit	059 097
Protection EN 60529	IP 65
Operating speed	≤ 5000 rpm ≤ 3000 rpm IP 65 (> 70 °C)
Starting torque	≤ 0.02 Nm ($+20$ °C)
Material	Housing: aluminium, black, powder-coated Shaft: stainless steel
Operating temperature	$-20...+70$ °C $-30...+100$ °C $-40...+100$ °C (only in combination with mounting kit 097)
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.	900 g

Optional

- Cable with connector

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Terminal assignment

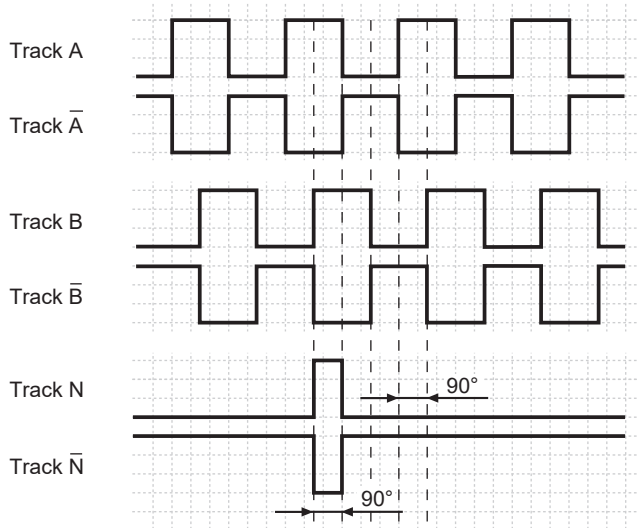
Cable sw03, cable sheath black,
PVC cable [5x2x0.14 mm² + 2x0.5 mm²]

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

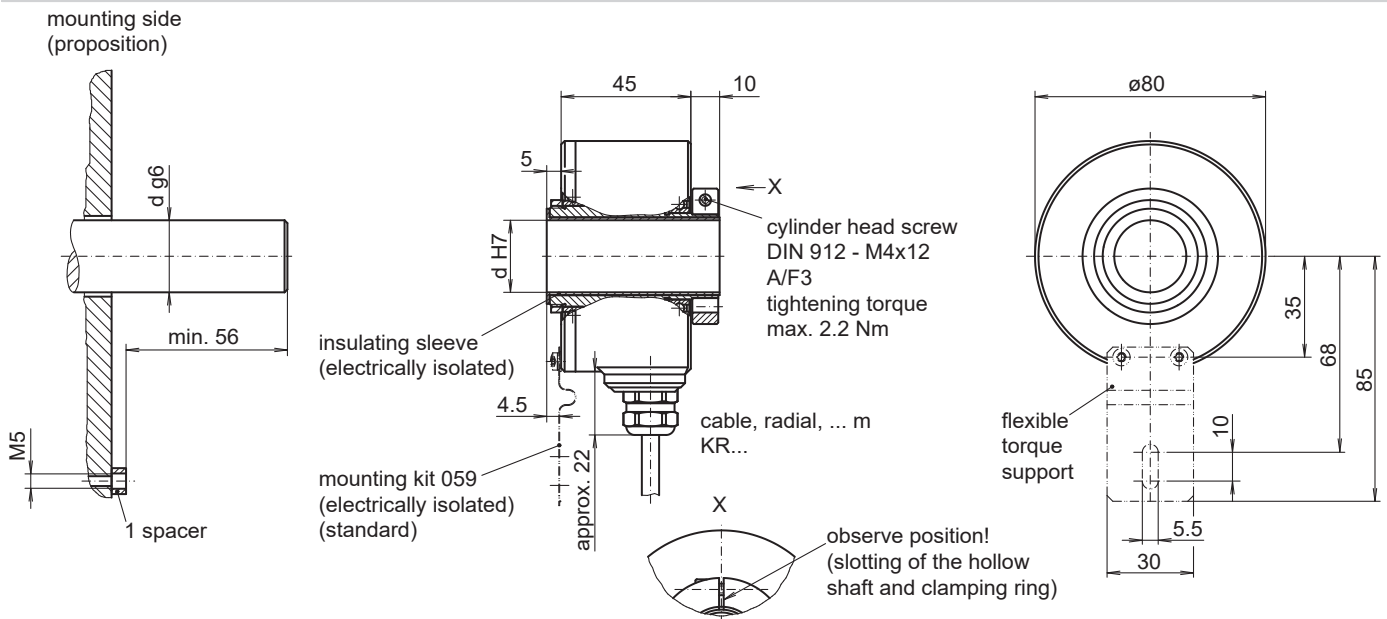
Outputs	Push-pull short-circuit proof
Output level High	$\geq UB - 3$ V
Output level Low	≤ 1.5 V
Load	≤ 70 mA

ITD 41 A 4 Y100

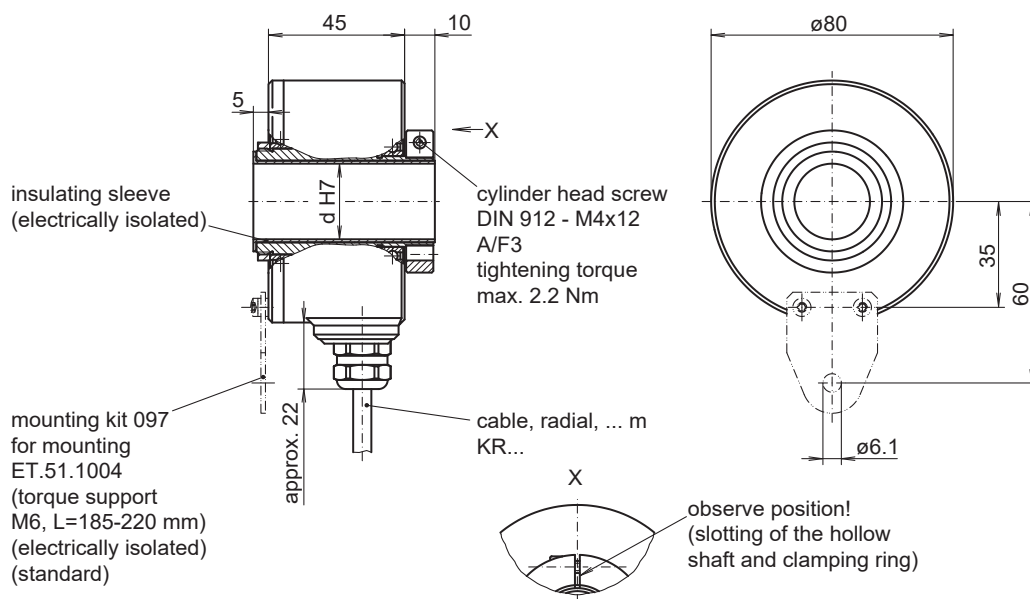
Through hollow shaft $\varnothing 20$ mm, $\varnothing 25$ mm

2000...10000 pulses per revolution

Dimensions



ITD 41 A 4 Y100 with mounting kit 059

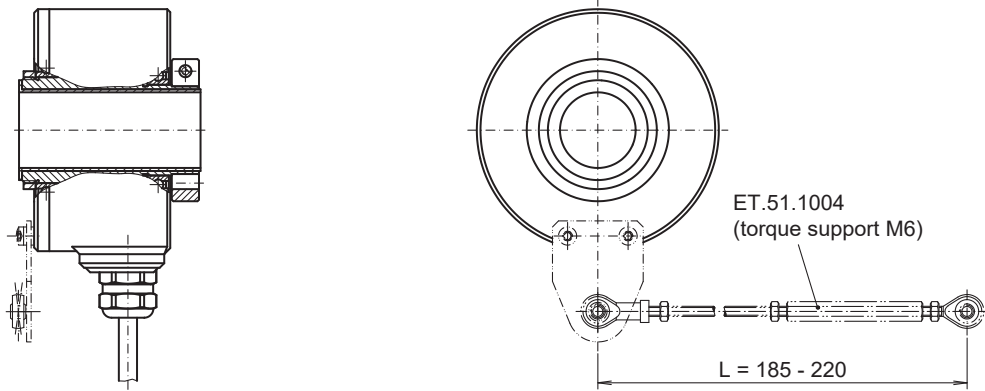


ITD 41 A 4 Y100 with mounting kit 097

ITD 41 A 4 Y100

Through hollow shaft $\varnothing 20$ mm, $\varnothing 25$ mm
2000...10000 pulses per revolution

Dimensions



ITD 41 A 4 Y100 with mounting kit 097 and torque support size M6

ITD 41 A 4 Y100

Through hollow shaft ø20 mm, ø25 mm

2000...10000 pulses per revolution

Ordering reference

		ITD 41 A 4 Y100	####	#	NI	KR1	#	##	####	##
Product		ITD 41 A 4 Y100								
		ITD 41 A 4 Y100								
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, 0, 0 inv					NI					
Connection										
Cable 1 m, radial						KR1				
Operating temperature										
-20...+70 °C								S		
-30...+100 °C								L		
-40...+100 °C (only in combination with mounting kit 097)								E		
Through hollow shaft										
ø20 mm									20	
ø25 mm									25	
Protection										
IP 54									IP54	
IP 65									IP65	
Mounting kit										
Mounting kit 059										059
Mounting kit 097										097