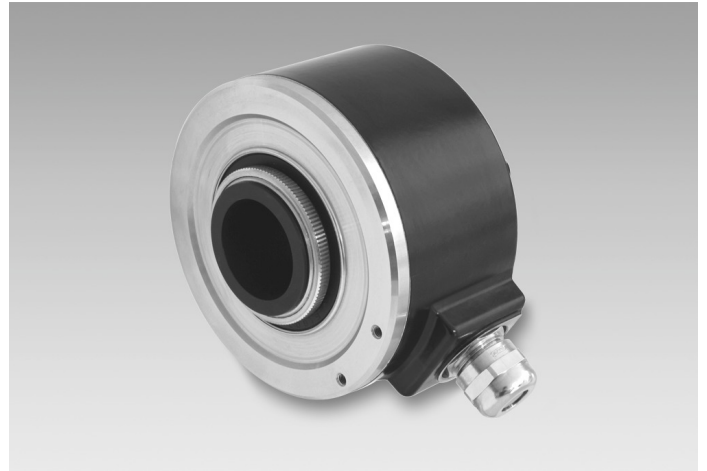


ITD 41 A 4 Y100

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 with mounting kit 97)
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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2000...10000 pulses per revolution

Terminal assignment

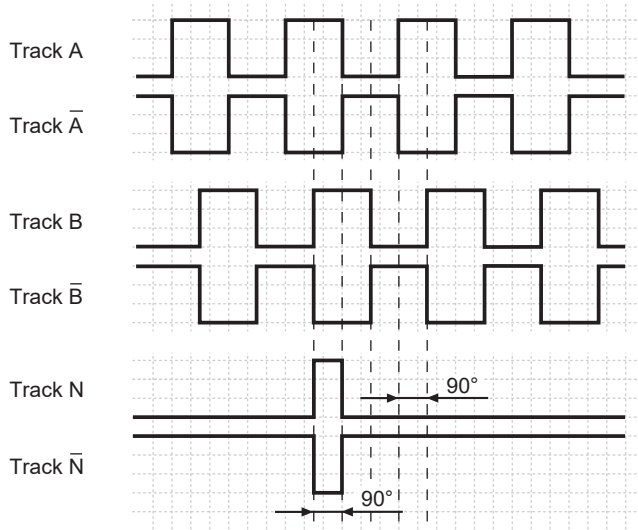
**Cable sw03, cable sheath black,
PVC cable [5x2x0.14 mm² + 2x0.5 mm²]**

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

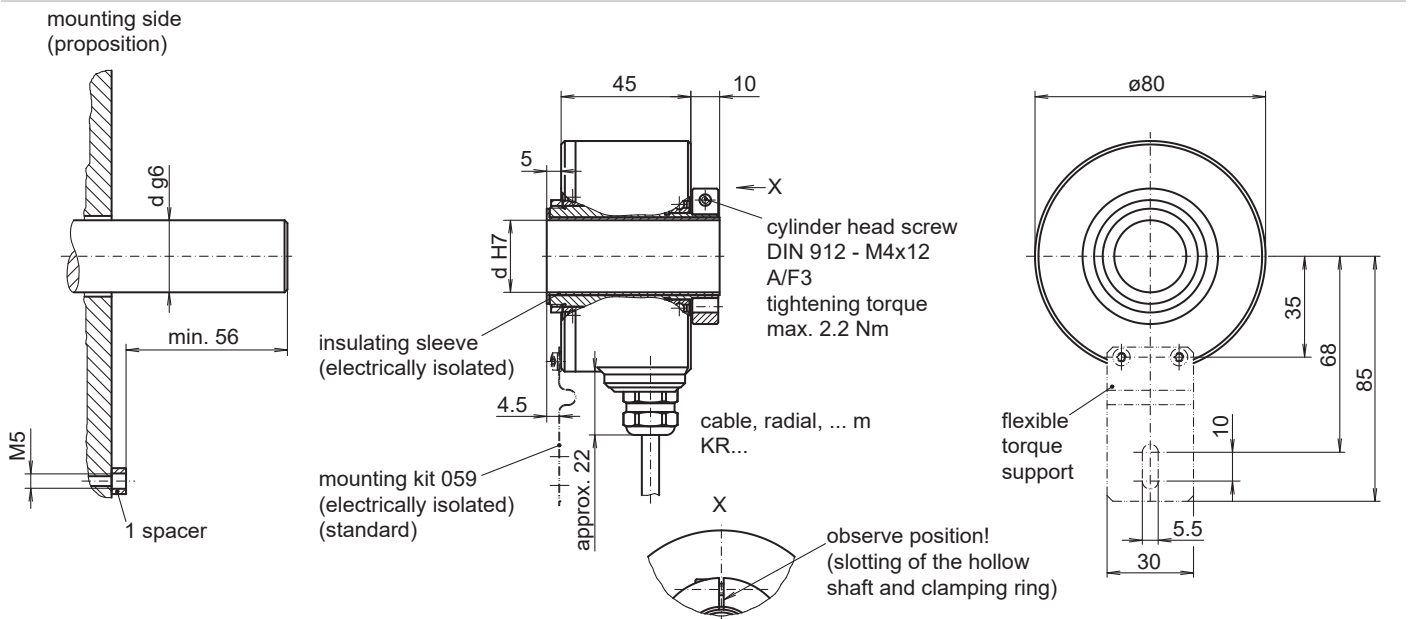
Outputs	Push-pull short-circuit proof
Output level High	$\geq UB - 3$ V
Output level Low	≤ 1.5 V
Load	≤ 70 mA

ITD 41 A 4 Y100

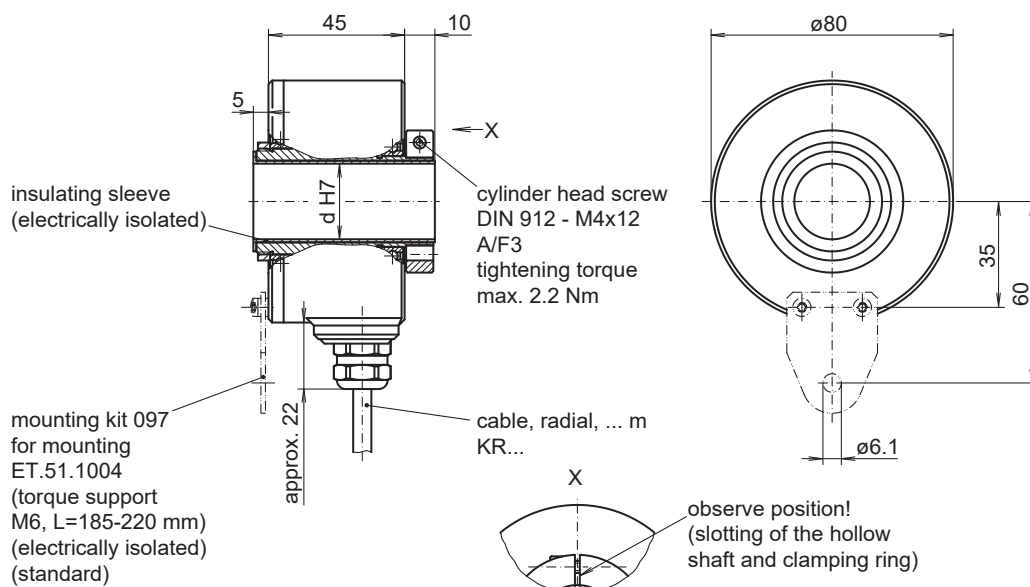
Through hollow shaft $\varnothing 20$ mm, $\varnothing 25$ mm

2000...10000 pulses per revolution

Dimensions



ITD 41 A 4 Y100 with mounting kit 59

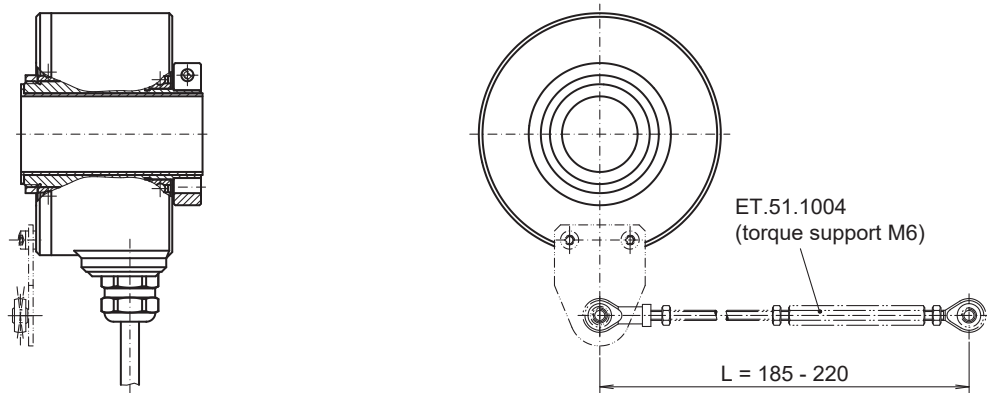


ITD 41 A 4 Y100 with mounting kit 97

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 97 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								
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 with mounting kit 97)							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