

ITD 40 A 4 Y27

Through hollow shaft $\varnothing 18$ to $\varnothing 27$ mm
200...2048 pulses per revolution

Overview

- Encoder with through hollow shaft $\varnothing 18$...27 mm
- Max. 2048 pulses per revolution
- Optical sensing method
- Mounting by torque support
- TTL or HTL output signals
- Cable output radial



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	200 ... 2048
Reference signal	Zero pulse, width 90°
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	EN 61000-6-2
Emitted interference	EN 61000-6-3

Technical data - mechanical design

Size (flange)	$\varnothing 80$ mm
Shaft type	$\varnothing 18$...27 mm (through hollow shaft)

Technical data - mechanical design

Mounting kit	050
Protection EN 60529	IP 65
Operating speed	≤ 5000 rpm ≤ 3000 rpm IP 65 (> 70 °C)
Starting torque	≤ 0.025 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 100 g, 11 ms
Connection	Cable 1 m
Weight approx.	580 g

Optional

- Cable with connector
- Extended operating temperature range

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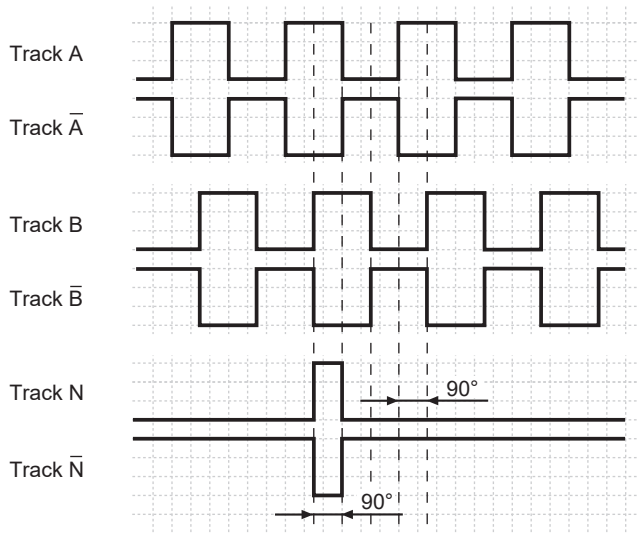
Terminal assignment

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

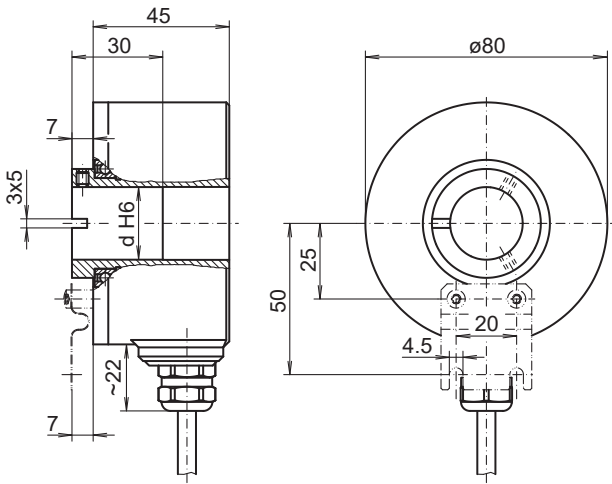
Outputs	Push-pull short-circuit proof
Output level High	$\geq UB - 3$ V
Output level Low	≤ 1.5 V
Load	≤ 70 mA

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Dimensions



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Ordering reference

		ITD 40 A 4 Y27	#####	#	NI	KR1	#	##	####	050
Product		ITD 40 A 4 Y27								
		ITD 40 A 4 Y27								
Pulse number										
	200		200							
	360		360							
	500		500							
	512		512							
	720		720							
	1000		1000							
	1024		1024							
	2048		2048							
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				
Operating temperature										
	-20...+70 °C							S		
	-20...+100 °C							E		
Through hollow shaft										
	$\varnothing 20$ mm								20	
	$\varnothing 25$ mm								25	
Protection										
	IP 54								IP54	
	IP 65								IP65	
Mounting kit										
	Mounting kit 050									050

Other diameters on request.