Baumer
Passion for Sensors

Incremental encoders

ITD 40 A 4 Y22

Through hollow shaft ø17 to ø27 mm

200…2048 pulses per revolution

Overview

- Encoder with through hollow shaft ø17...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°
Sensing method	Optical
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	DIN EN 61000-6-2
Emitted interference	DIN EN 61000-6-3
Technical data - mechanical design	
Size (flange)	ø80 mm
Shaft type	ø17...27 mm (through hollow shaft)

Technical data - mechanical design	
Mounting kit	050
Protection DIN EN 60529	IP 65
Operating speed	≤5000 rpm ≤3000 rpm IP 65 (>70 °C)
Starting torque	≤0,015 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	DIN EN 60068-2-6 Vibration 10 g, 55-2000 Hz DIN 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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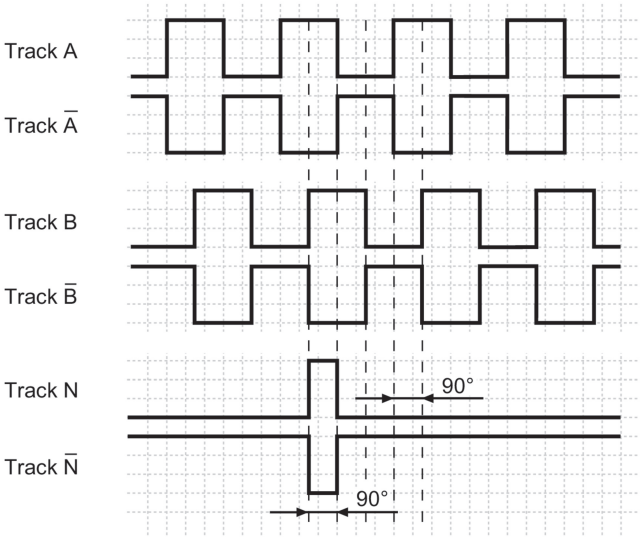
Terminal assignment

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 mm²	UB
white 0,5 mm²	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	≥UB -3 V
Output level Low	≤1.5 V
Load	≤70 mA

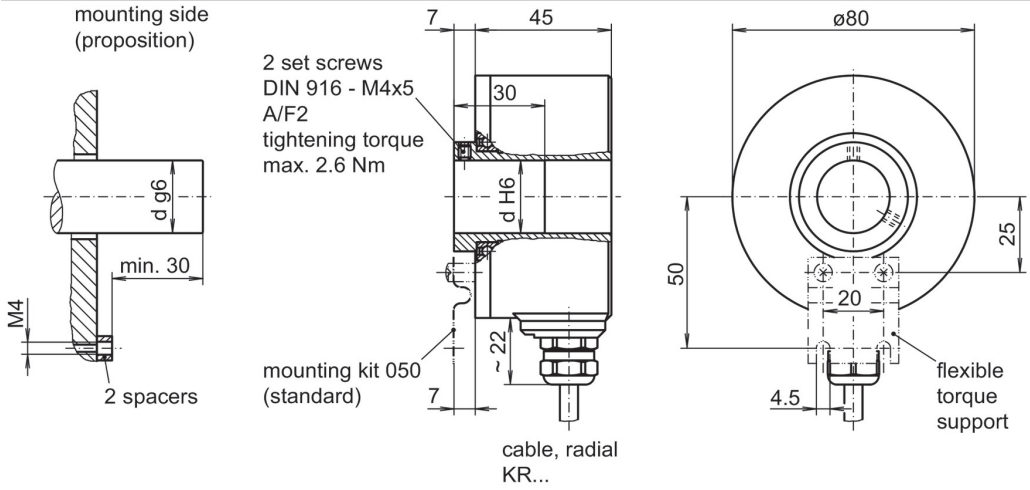
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Dimensions



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Ordering reference

	ITD 40 A 4 Y22	#####	#	NI	KR1	#	##	####	050
Product	ITD 40 A 4 Y22								
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									
ø20 mm							20		
ø25 mm							25		
Protection									
IP 54								IP54	
IP 65								IP65	
Mounting kit									
Mounting kit 050									050

Other diameters on request.

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