Baumer
Passion for Sensors

Incremental encoders

ITD 2 A 4 Y36

Blind hollow shaft ø10 to ø14 mm

2…60 pulses per revolution

Overview

- Encoder with blind hollow shaft ø10...14 mm
- Max. 60 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	2 … 60
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)	ø58 mm
Shaft type	ø10 mm (blind hollow shaft) ø12 mm (blind hollow shaft) ø14 mm (blind hollow shaft)

Technical data - mechanical design	
Mounting kit	006
Protection DIN EN 60529	IP 65
Operating speed	≤8000 rpm
Starting torque	≤0,01 Nm (+20 °C)
Material	Housing: aluminium, black, powder-coated Shaft: stainless steel
Operating temperature	-20...+70 °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.	280 g

Optional

- Cable with connector

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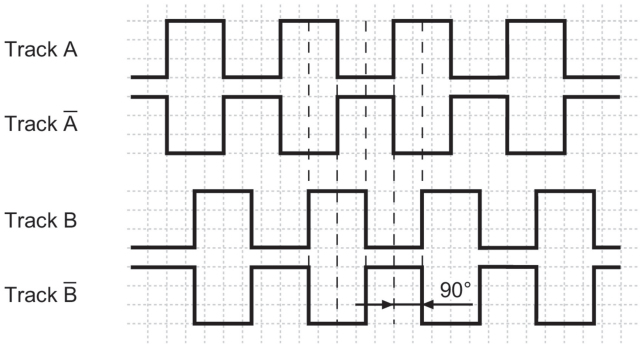
Terminal assignment

Core colour	Assignment
green	Track A
brown	Track A inv.
grey	Track B
black	Track B inv.
pink	Track N
white	Track N inv.
red	UB
blue	GND
yellow	UB-Sense
violet	GND-Sense
transparent	Shield/Housing

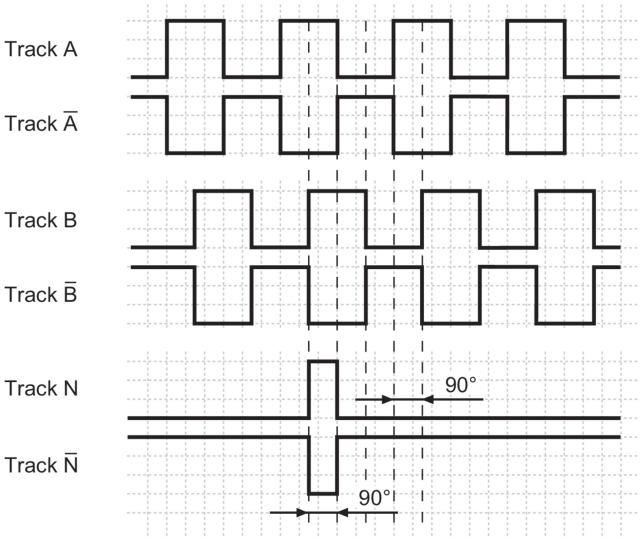
Output signals

Clockwise rotation when looking at the mounting side.

BI-Output signals



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

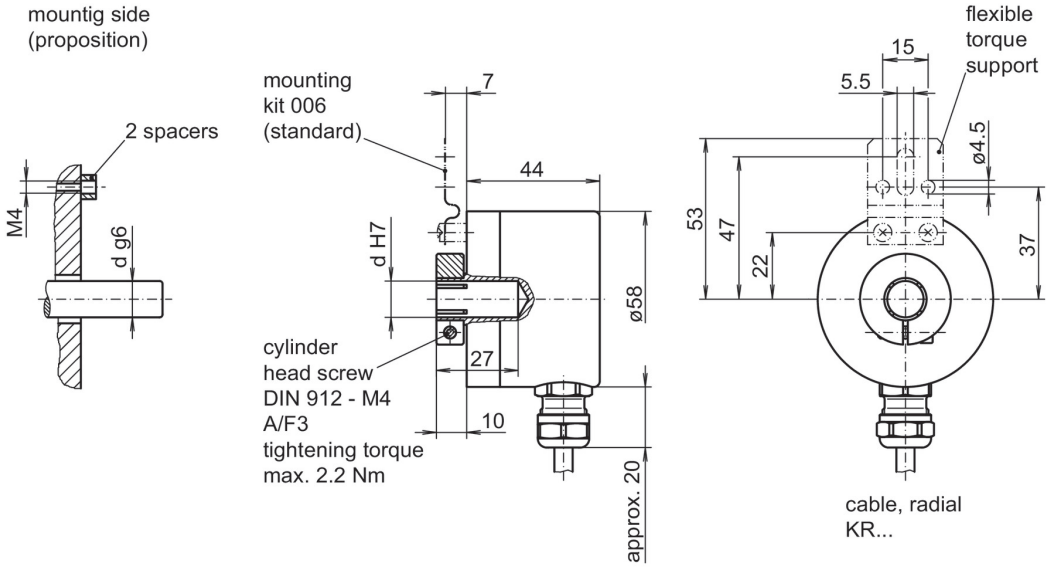
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Dimensions



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Ordering reference

	ITD 2 A 4 Y36	#####	#	####	KR1	S	##	IP65	006
Product	ITD 2 A 4 Y36								
Pulse number									
2		2							
5		5							
10		10							
12		12							
14		14							
15		15							
16		16							
18		18							
20		20							
21		21							
23		23							
25		25							
30		30							
32		32							
50		50							
60		60							
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				BI					
A, A inv, B, B inv, N, N inv				NI					
Connection									
Cable 1 m, radial					KR1				
Operating temperature									
-20...+70 °C						S			
Blind hollow shaft									
ø10 mm							10		
ø12 mm							12		
ø14 mm							14		
Protection									
IP 65								IP65	
Mounting kit									
Mounting kit 006									006

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