

ITD 01 B14

Mini encoder with shaft $\varnothing 4$ mm

30...1024 pulses per revolution

Overview

- Mini encoder with solid shaft $\varnothing 4$ mm
- Max. 1024 pulses per revolution
- Optical sensing method
- Outer diameter $\varnothing 24$ mm
- TTL or HTL output signals
- Cable output radial or axial



Technical data

Technical data - electrical ratings

Voltage supply	5 VDC $\pm 5\%$ 8...30 VDC
Reverse polarity protection	Yes
Consumption w/o load	≤ 25 mA
Pulses per revolution	30 ... 1024
Reference signal	Zero pulse, width 90°
Sensing method	Optical
Output frequency	≤ 100 kHz
Output signals	A 90° B, N + inverted
Output stages	TTL Push-pull short-circuit proof

Technical data - mechanical design

Size (flange)	$\varnothing 24$ mm
Shaft type	$\varnothing 4$ mm solid shaft
Admitted shaft load	≤ 5 N axial ≤ 8 N radial

Technical data - mechanical design

Flange	Synchro flange
Protection EN 60529	IP 54
Operating speed	≤ 18000 rpm
Starting torque	≤ 0.006 Nm (+20 °C)
Material	Housing: aluminium Shaft: stainless steel
Operating temperature	-20...+85 °C
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.	50 g

Optional

- Cable with connector

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Terminal assignment

With BX-/NX-signals

Core colour	Assignment
green	Track A
yellow	Track B
grey	Track N
brown	UB
white	GND
transparent	Shield/Housing

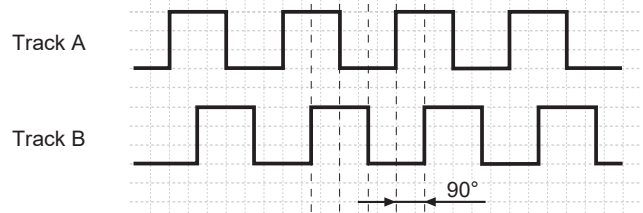
With BI-/NI-signals

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

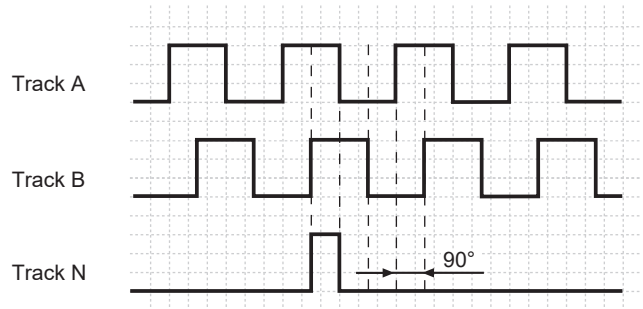
Output signals

Clockwise rotation when looking at the mounting side.

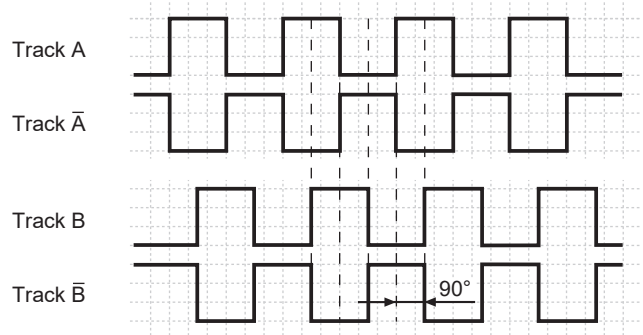
BX-Output signals



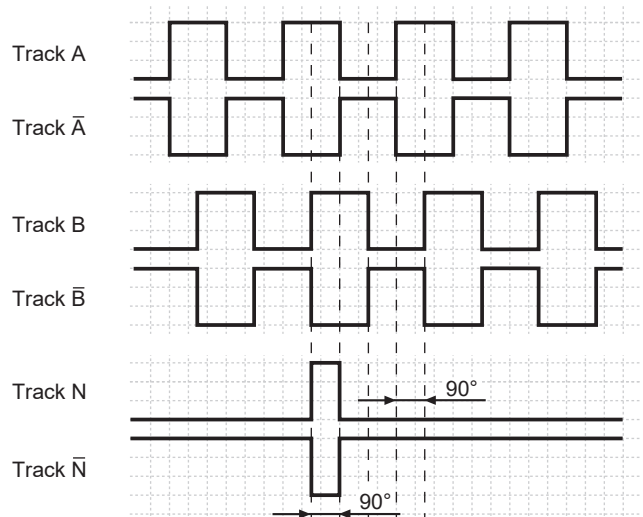
NX-Output signals



BI-Output signals



NI-Output signals



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Trigger level

Outputs	Linedriver
Output level High	≥ 2.4 V
Output level Low	≤ 0.5 V
Load	≤ 30 mA

Outputs	Push-pull short-circuit proof
Output level High	$\geq U_B - 3$ V
Output level Low	≤ 1.5 V
Load	≤ 30 mA

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Ordering reference

	ITD 01 B14	#####	#	####	#####	S	4	IP54
Product	ITD 01 B14							
Pulse number	ITD 01 B14							
30		30						
60		60						
100		100						
300		300						
360		360						
500		500						
600		600						
1000		1000						
1024		1024						
Voltage supply / signals								
5 VDC / TTL level, linedriver						T		
8...30 VDC / HTL level, push-pull						H		
Output signals								
A, B								BX
A, B, N								NX
A, A inv, B, B inv								BI
A, A inv, B, B inv, N, N inv								NI
Connection								
Cable 1 m, radial								KR1
Cable 1 m, axial								KA1
Operating temperature								
-20...+85 °C								S
Flange / Solid shaft								
Synchro flange / ø4 mm								4
Protection								
IP 54								IP54