

Incremental encoders

Mini encoder with shaft $\varnothing 4$ mm

Resolution 30...1024 pulses

ITD 01 B14



ITD 01 B14 with synchro flange

Features

- Mini encoder with shaft $\varnothing 4$ mm
- Resolution max. 1024 ppr
- Optical sensing
- Outer diameter $\varnothing 24$ mm
- TTL or HTL output signals
- Cable output radial or axial

Optional

- Cable with connector

Technical data - electrical ratings

Voltage supply	5 VDC ± 5 % 8...30 VDC
Reverse polarity protection	Yes
Consumption w/o load	≤ 25 mA
Resolution (steps/turn)	30...1024
Reference signal	Zero pulse, width 90°
Sensing method	Optical
Output frequency	≤ 100 kHz
Output signals	A 90° B, N + inverted
Output circuit	TTL Push-pull short-circuit proof

Technical data - mechanical design

Housing	$\varnothing 24$ mm
Shaft	$\varnothing 4$ mm
Flange	Synchro flange
Protection DIN EN 60529	IP 54
Operating speed	≤ 18000 rpm
Starting torque	≤ 0.006 Nm
Admitted shaft load	≤ 5 N axial ≤ 8 N radial
Materials	Housing: aluminium Shaft: stainless steel
Operating temperature	$-20...+85$ °C
Relative humidity	90 % non-condensing
Resistance	DIN EN 60068-2-6 Vibration 10 g, 55-2000 Hz DIN EN 60068-2-27 Shock 30 g, 11 ms
Weight approx.	50 g
Connection	Cable 1 m

Incremental encoders

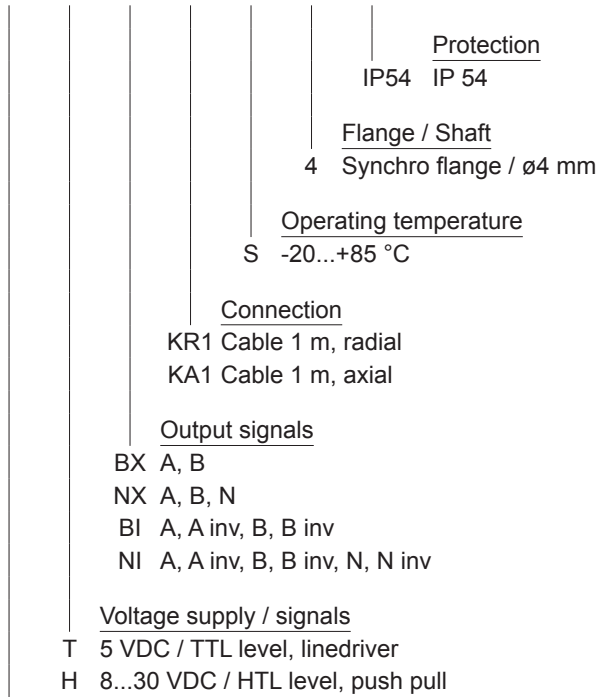
Mini encoder with shaft $\varnothing 4$ mm
Resolution 30...1024 pulses

ITD 01 B14

Part number

ITD 01 B14

				S	4	IP54
--	--	--	--	---	---	------



See part number (pulses)

Part number (pulses)

30	100	360	600	1024
60	300	500	1000	

Incremental encoders

Mini encoder with shaft $\varnothing 4$ mm

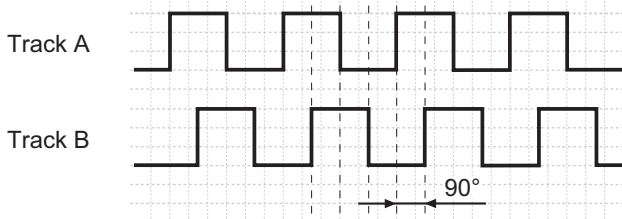
Resolution 30...1024 pulses

ITD 01 B14

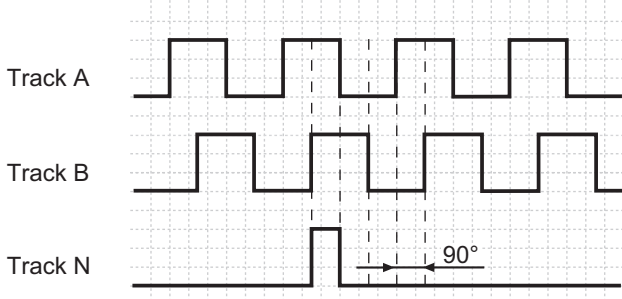
Output signals

Clockwise rotation when looking at the mounting side.

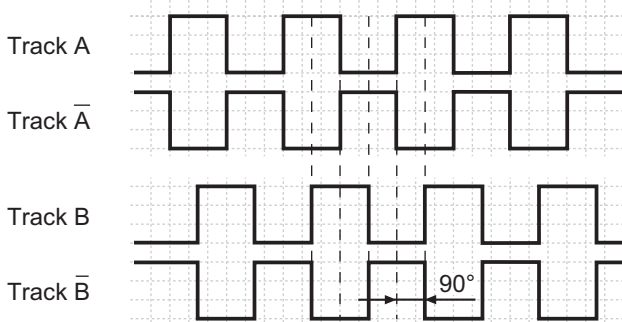
BX-Output signals



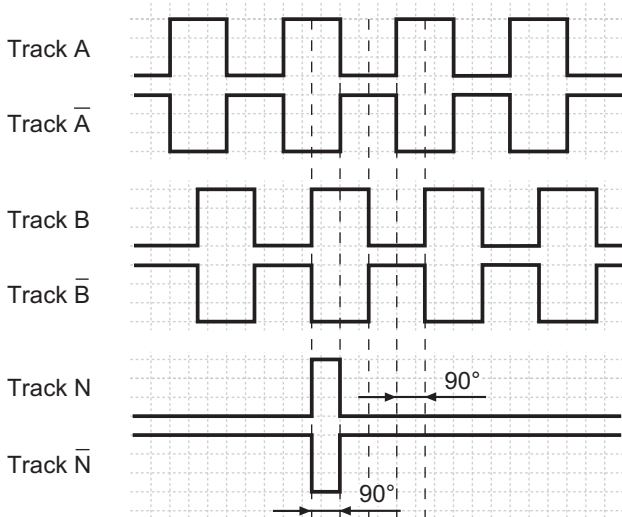
NX-Output signals



BI-Output signals



NI-Output signals



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

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	$\geq UB - 3$ V
Output level Low	≤ 1.5 V
Load	≤ 30 mA

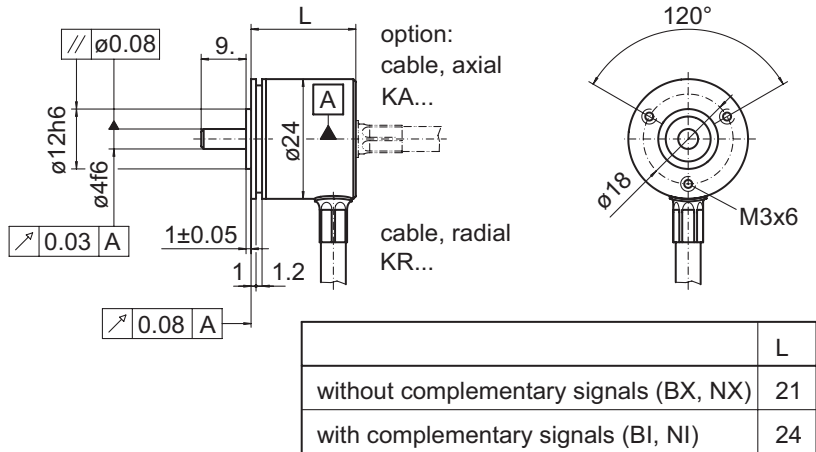
Incremental encoders

Mini encoder with shaft $\varnothing 4$ mm

Resolution 30...1024 pulses

ITD 01 B14

Dimensions



030- 8