

Incremental encoders

Mini encoder with blind hollow shaft $\varnothing 4$ mm

30...1024 pulses per revolution

ITD 01 A 4 Y 1



ITD 01 A 4 Y 1 with blind hollow shaft

Features

- Mini encoder with blind hollow 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
- Clamping ring torsion-proof

Technical data - electrical ratings

Voltage supply	5 VDC ± 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, 0
Output stages	TTL Push-pull short-circuit proof

Technical data - mechanical design

Size (flange)	$\varnothing 24$ mm
Shaft type	$\varnothing 4$ mm (blind hollow shaft)
Motor shaft tolerance	0.25 mm axial 0.1 mm radial
Mounting kit	101
Protection DIN EN 60529	IP 54
Operating speed	≤ 10000 rpm
Starting torque	≤ 0.007 Nm (+20 °C)
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
Connection	Cable 1 m
Weight approx.	50 g

· Subject to modification in technic and design. Errors and omissions excepted.

Incremental encoders

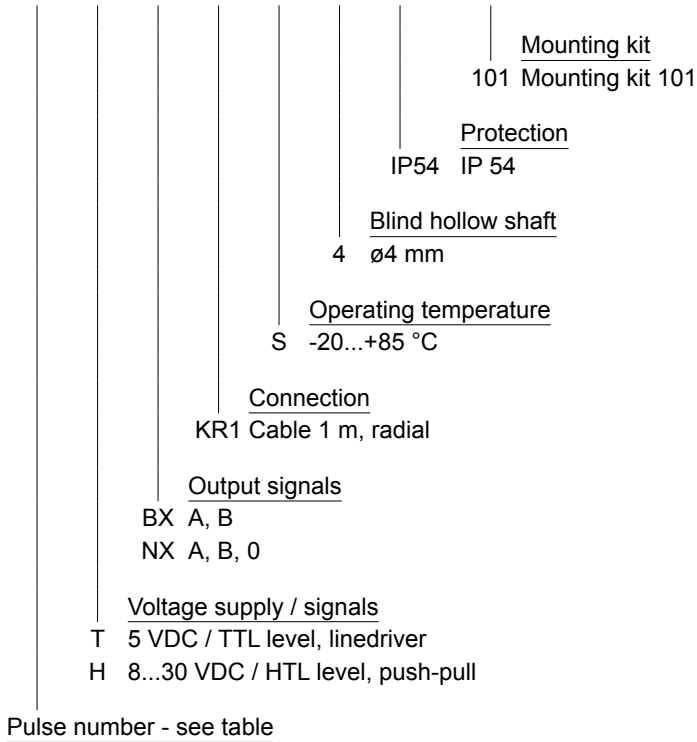
Mini encoder with blind hollow shaft $\varnothing 4$ mm

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Part number

ITD 01 A 4 Y 1 KR1 S 4 IP54 101



Pulse number

30	100	360	600	1024
60	300	500	1000	

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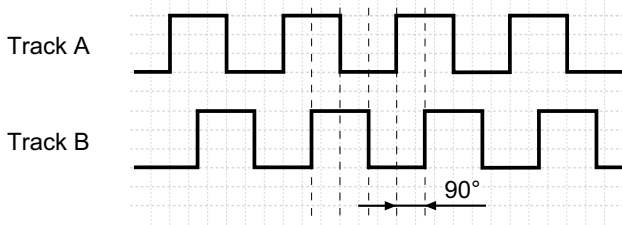
30...1024 pulses per revolution

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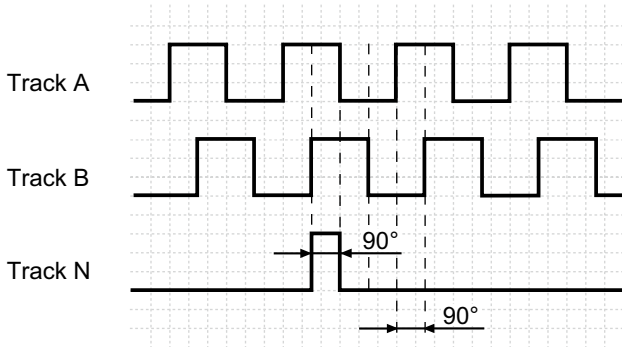
Output signals

Clockwise rotation when looking at the mounting side.

BX-Output signals



NX-Output signals



Terminal assignment

Core colour	Assignment
green	Track A
yellow	Track B
grey	Track N
brown	UB
white	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

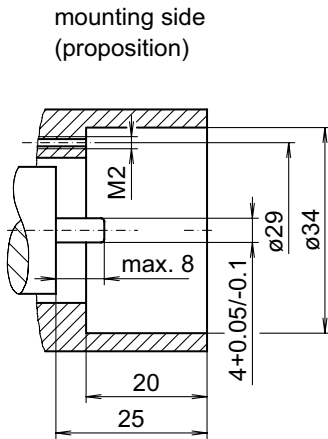
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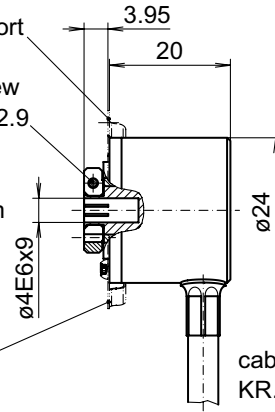
Dimensions



flexible torque support

1 cylinder head screw
DIN 912 - M1.6x6 12.9
A/F1.5
tightening torque
max. 0.25 - 0.30 Nm

mounting kit 101
(standard)



cable, radial, ... m
KR...

