

# Incremental encoders

End shaft  $\varnothing 14$  mm

Resolution 100...4096 pulses

## ITD 21 A 4 Y79



ITD 21 A 4 Y79 with end shaft

### Features

- Encoder with end shaft  $\varnothing 14$  mm
- Resolution max. 4096 ppr
- Optical sensing
- Mounting by torque support
- TTL or HTL output signals
- Cable output radial

### Technical data - electrical ratings

Voltage supply	5 VDC $\pm 5$ % 8...30 VDC
Reverse polarity protection	Yes
Consumption w/o load	$\leq 100$ mA
Resolution (steps/turn)	100...4096
Reference signal	Zero pulse, width $90^\circ$
Sensing method	Optical
Output frequency	$\leq 300$ kHz (TTL) $\leq 160$ kHz (HTL)
Output signals	A, B, N + inverted
Output circuit	TTL linedriver (short-circuit proof) HTL push-pull (short-circuit proof)
Interference immunity	DIN EN 61000-6-2
Emitted interference	DIN EN 55011

### Technical data - mechanical design

Dimensions (flange)	$\varnothing 58$ mm
Shaft	$\varnothing 14$ mm end shaft
Motor shaft tolerance	0.25 mm axial 0.1 mm radial
Mounting kit variant	019
Protection DIN EN 60529	IP 54
Operating speed	$\leq 8000$ rpm
Starting torque	$\leq 0.01$ Nm
Materials	Housing: aluminium, black, powder-coated Shaft: stainless steel
Operating temperature	$-20 \dots +100$ °C $-20 \dots +120$ °C
Relative humidity	90 % non-condensing
Resistance	DIN EN 60068-2-6 Vibration 20 g, 55-2000 Hz DIN EN 60068-2-27 Shock 100 g, 6 ms
Connection	Cable 0.2 m
Weight approx.	300 g

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## Part number

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		NI	KR0.2		14	IP54	019
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Mounting kit  
019 Mounting accessory kit 019

Protection  
IP54 IP 54

End shaft  
14 End shaft  $\varnothing$ 14 mm

Operating temperature  
E -20...+100 °C (HTL)  
F -20...+120 °C (TTL)

Connection  
KR0.2 Cable 0.2 m, radial

Output signals  
NI A, A inv, B, B inv, 0, 0 inv

Voltage supply / signals  
T 5 VDC / TTL level, linedriver  
H 8...30 VDC / HTL level, push pull  
R 8...30 VDC / TTL level, linedriver

See part number (pulses)

## Part number (pulses)

100	300	720	1250	2500
120	360	800	1440	3000
150	400	900	1500	3600
200	500	1000	1800	4000
250	512	1024	2000	4096
256	600	1200	2048	

## Accessories

### Mounting accessories

11073115	Cone clamping shaft $\varnothing$ 10 mm
11073116	Cone clamping shaft $\varnothing$ 10 mm V1
11073117	Cone clamping shaft $\varnothing$ 14 mm

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End shaft  $\varnothing 14$  mm

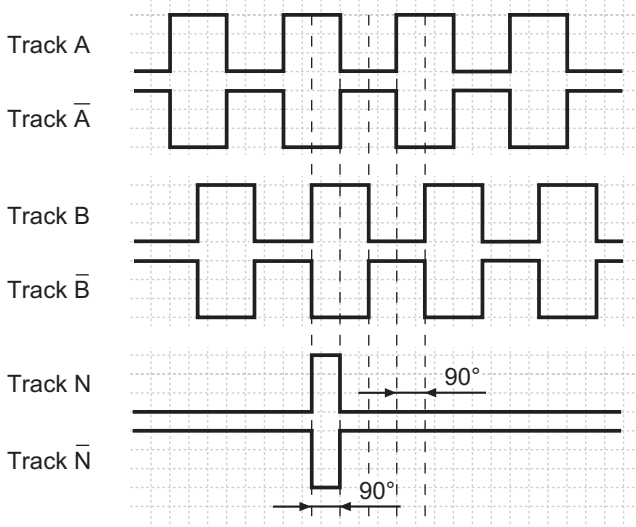
Resolution 100...4096 pulses

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### Output signals

Clockwise rotation when looking at the mounting side.

NI-Output signals



### Terminal assignment

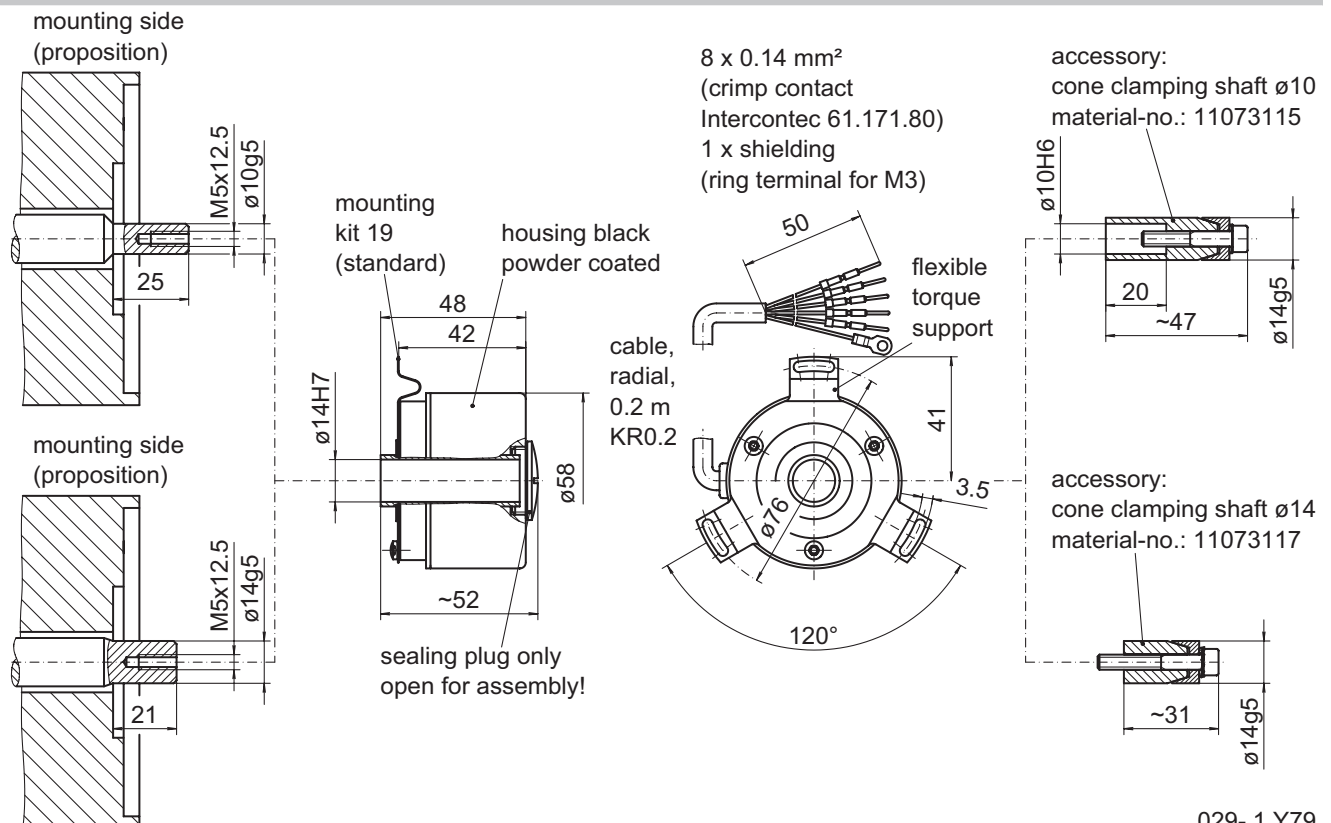
Core colour	Assignment
green	Track A
brown	Track A inv.
grey	Track B
black	Track B inv.
pink	Track N
white	Track N inv.
red	UB
blue	GND
transparent	Shield/Housing

### Trigger level

Outputs	Linedriver
Output level High	$\geq 2.4$ V
Output level Low	$\leq 0.5$ V
Load	$\leq 70$ mA

Outputs	Push-pull short-circuit proof
Output level High	$\geq UB - 3$ V
Output level Low	$\leq 1.5$ V
Load	$\leq 70$ mA

### Dimensions



029- 1 Y79

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