

# Incremental encoders

Hollow shaft  $\varnothing 30$  to  $\varnothing 45$  mm

Resolution 1024...4096 pulses

## ITD 61 A 4 Y 9



ITD 61 A 4 Y 9 with hollow shaft

### 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)	1024...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

### Features

- Encoder with electric isolated hollow shaft  $\varnothing 30$ -45 mm
- Resolution max. 4096 ppr
- Optical sensing
- Water cooled over screw connections
- NIRO design
- Mounting by torque support
- TTL or HTL output signals
- Cable output axial

### Optional

- Cable with connector

### Technical data - mechanical design

Dimensions (flange)	$\varnothing 150$ mm
Shaft	$\varnothing 30$ ...45 mm hollow shaft
Motor shaft tolerance	0.5 mm axial 0.1 mm radial
Mounting kit variant	067
Protection DIN EN 60529	IP 54
Operating speed	$\leq 4000$ rpm
Materials	Housing: stainless steel Shaft: stainless steel
Operating temperature	0...+100 °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.	3770 g
Special characteristics	up to +150 °C during shielded cable and water cooling

# Incremental encoders

Hollow shaft ø30 to ø45 mm

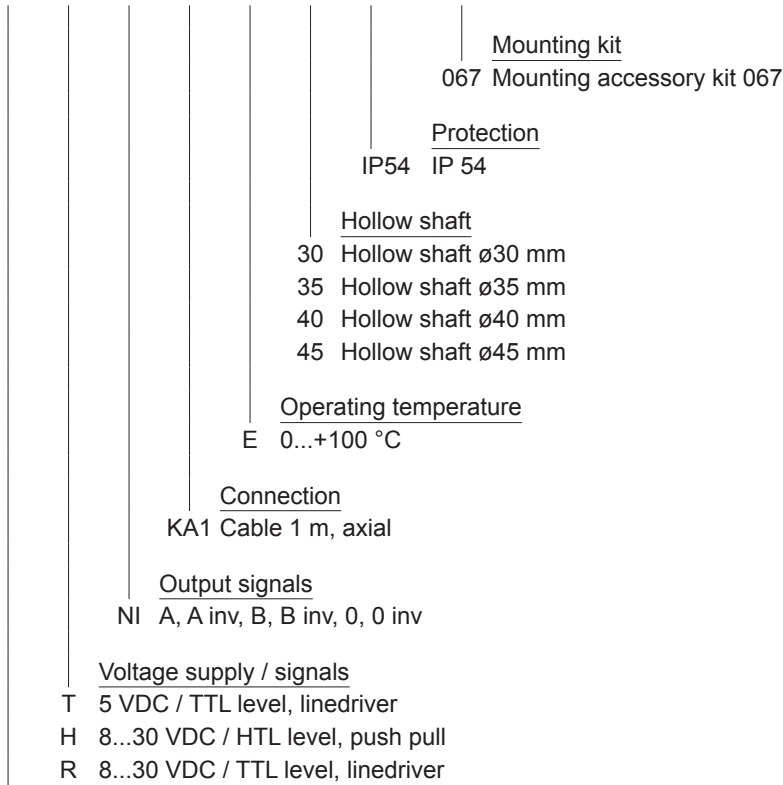
Resolution 1024...4096 pulses

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## Part number

ITD 61 A 4 Y 9 

		NI	KA1	E		IP54	067
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See part number (pulses)

## Part number (pulses)

1024	2048	2500	4096
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# Incremental encoders

Hollow shaft  $\varnothing 30$  to  $\varnothing 45$  mm

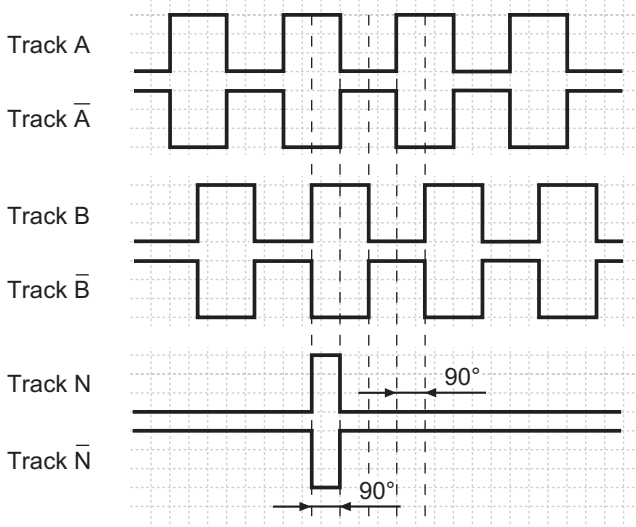
Resolution 1024...4096 pulses

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### Output signals

Clockwise rotation when looking at the mounting side.

NI-Output signals



### Terminal assignment

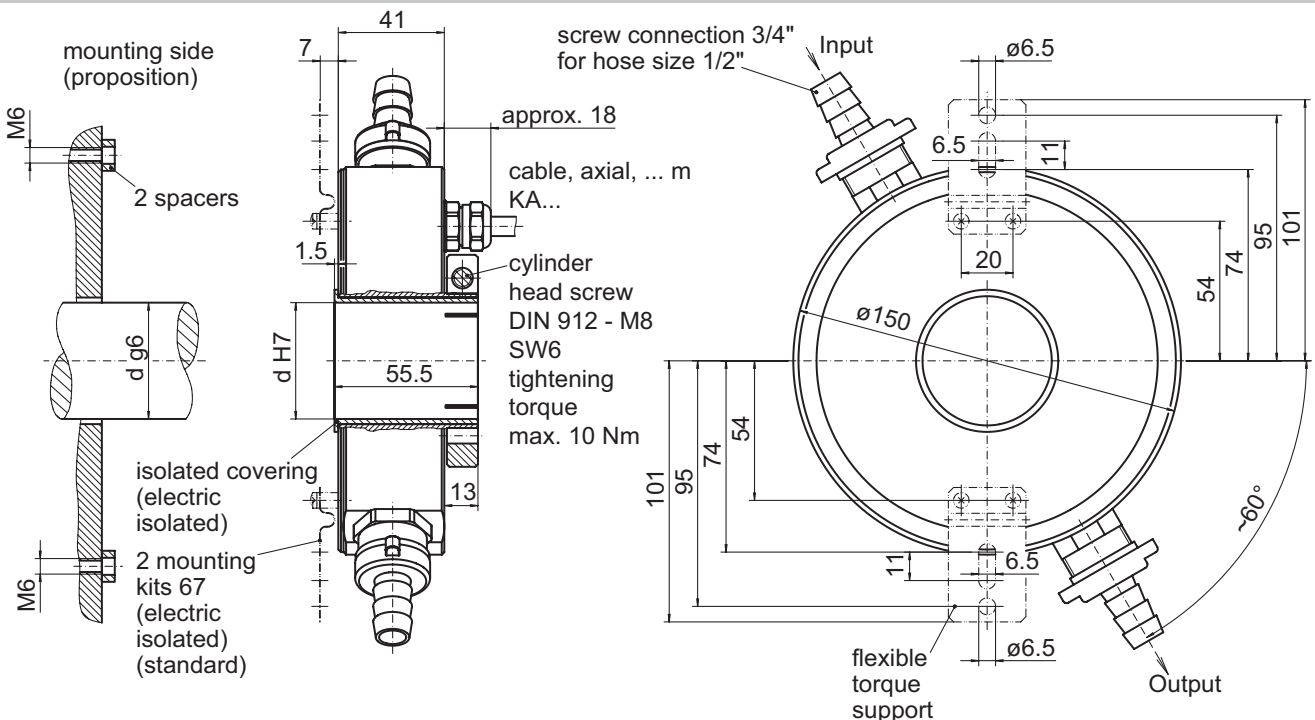
Core colour	Assignment
brown	Track A
green	Track A inv.
grey	Track B
pink	Track B inv.
red	Track N
black	Track N inv.
brown 0,5 mm <sup>2</sup>	UB
white 0,5 mm <sup>2</sup>	GND
blue	UB-Sense
white	GND-Sense
transparent	Shield/Housing

### 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



026-30 Y 9

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