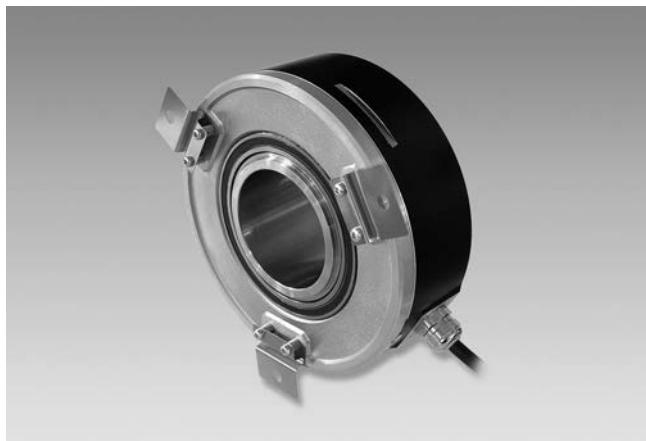


# Incremental encoders

Through hollow shaft  $\varnothing 40$  to  $\varnothing 65$  mm

1000...2500 pulses per revolution

## ITD 70 A 4 Y 7



ITD 70 A 4 Y 7 with through 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
Pulses per revolution	1000...2500
Reference signal	Zero pulse, width $90^\circ$
Sensing method	Optical
Output frequency	$\leq 120$ kHz
Output signals	A, B, N + inverted
Output stages	TTL linedriver (short-circuit proof) HTL push-pull (short-circuit proof)
Interference immunity	DIN EN 61000-6-2
Emitted interference	DIN EN 61000-6-3

### Features

- Encoder with through hollow shaft max.  $\varnothing 65$  mm
- Max. 2500 pulses per revolution
- Optical sensing method
- Mounting by torque support
- Mounting hole circle  $\varnothing 164$  mm
- TTL or HTL output signals
- Cable output radial

### Optional

- Cable with connector

### Technical data - mechanical design

Size (flange)	$\varnothing 150$ mm
Shaft type	$\varnothing 40$ ... $\varnothing 65$ mm (through hollow shaft)
Mounting kit	051
Protection DIN EN 60529	IP 54
Operating speed	$\leq 4000$ rpm
Materials	Housing: aluminium, black, powder-coated Shaft: stainless steel
Operating temperature	$-20$ ... $+70$ °C
Relative humidity	90 % non-condensing
Resistance	DIN EN 60068-2-6 Vibration 10 g, 55-2000 Hz DIN EN 60068-2-27 Shock 100 g, 11 ms
Connection	Cable 1 m
Weight approx.	2900 g

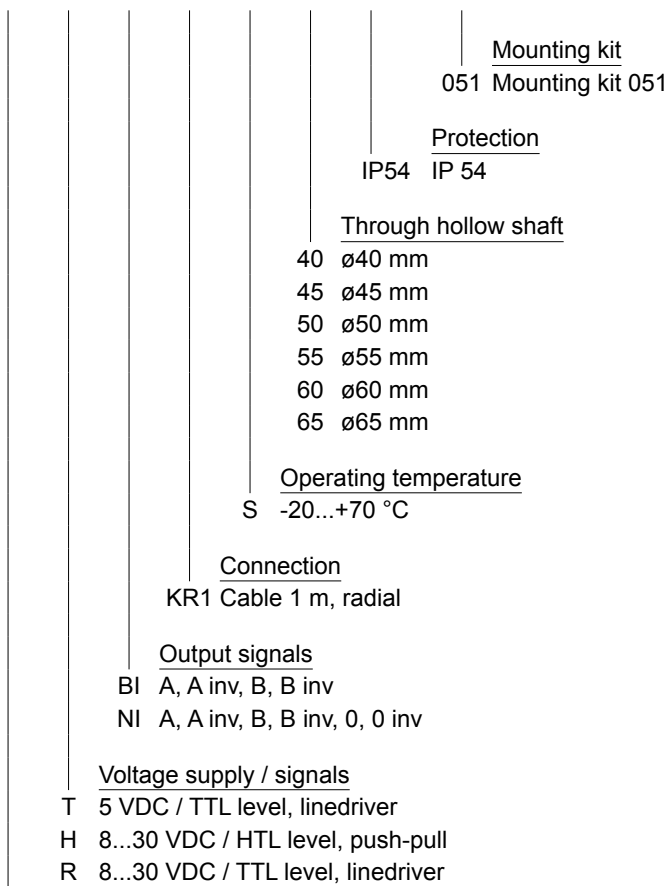
# Incremental encoders

Through hollow shaft  $\varnothing 40$  to  $\varnothing 65$  mm  
1000...2500 pulses per revolution

ITD 70 A 4 Y 7

## Part number

ITD 70 A 4 Y 7       KR1 S   IP54 051



Pulse number - see table

## Pulse number

1000	1024	2048	2500
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Subject to modification in technic and design. Errors and omissions excepted.

# Incremental encoders

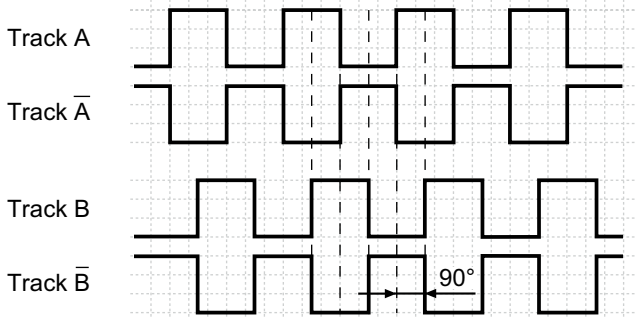
Through hollow shaft  $\varnothing 40$  to  $\varnothing 65$  mm  
1000...2500 pulses per revolution

## ITD 70 A 4 Y 7

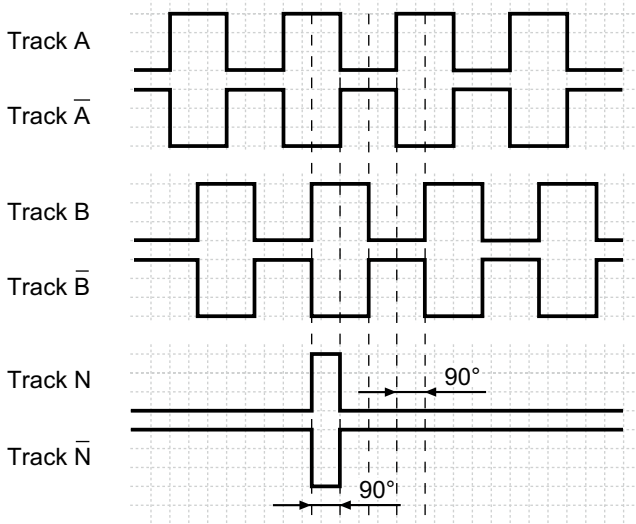
### Output signals

Clockwise rotation when looking at the mounting side.

#### BI-Output signals



#### 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
yellow	UB-Sense
violet	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

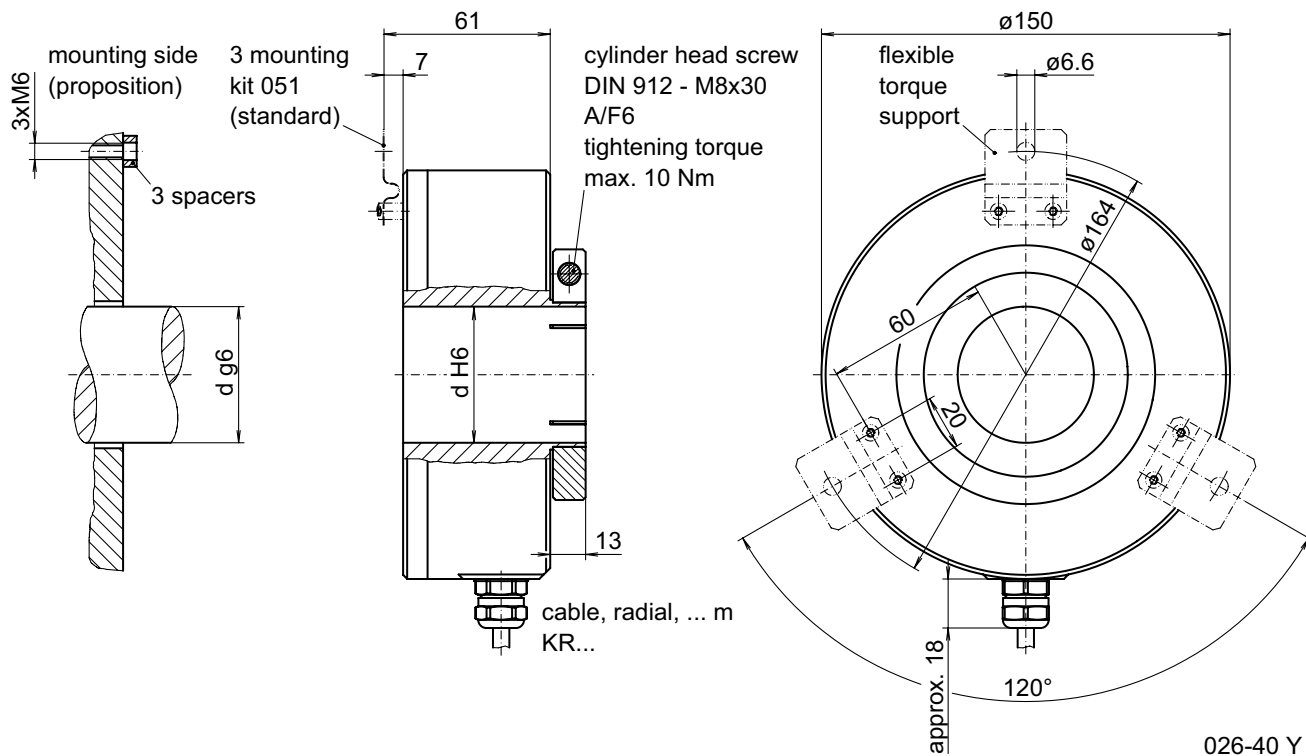
Outputs	Push-pull short-circuit proof
Output level High	$\geq UB - 3$ V
Output level Low	$\leq 1.5$ V
Load	$\leq 70$ mA

# Incremental encoders

Through hollow shaft  $\varnothing 40$  to  $\varnothing 65$  mm  
1000...2500 pulses per revolution

ITD 70 A 4 Y 7

## Dimensions



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