

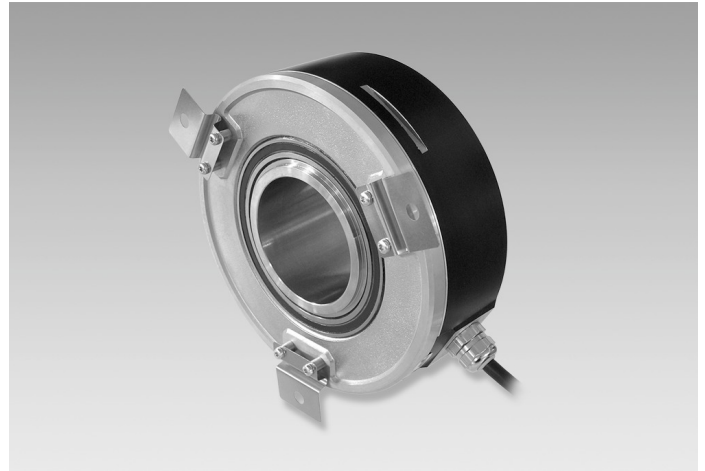
## ITD 70 A 4 Y 7

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

1000...2500 pulses per revolution

### Overview

- 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



### Technical data

#### 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	EN 61000-6-2
Emitted interference	EN 61000-6-3

#### Technical data - mechanical design

Size (flange)	$\varnothing 150$ mm
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#### Technical data - mechanical design

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

### Optional

- Cable with connector

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### 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

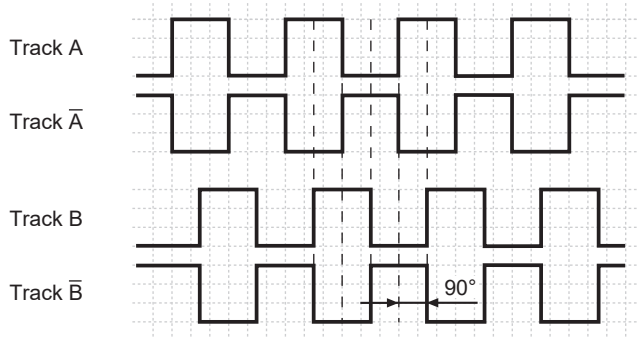
Outputs	Linedriver
Output level High	$\geq 2.4$ V
Output level Low	$\leq 0.5$ V
Load	$\leq 70$ mA

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

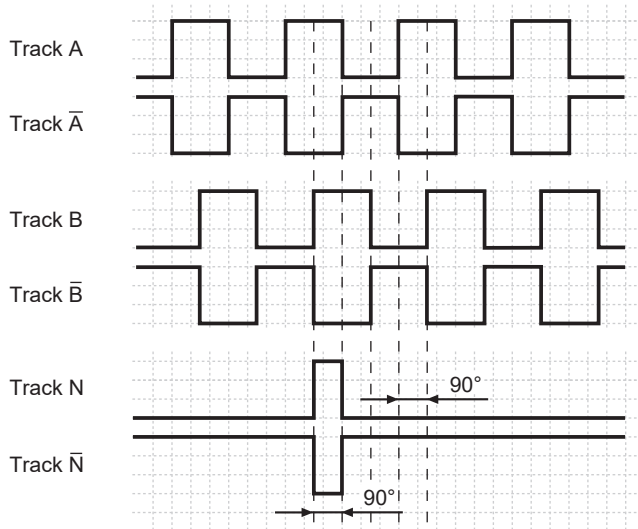
### Output signals

Clockwise rotation when looking at the mounting side.

#### BI-Output signals



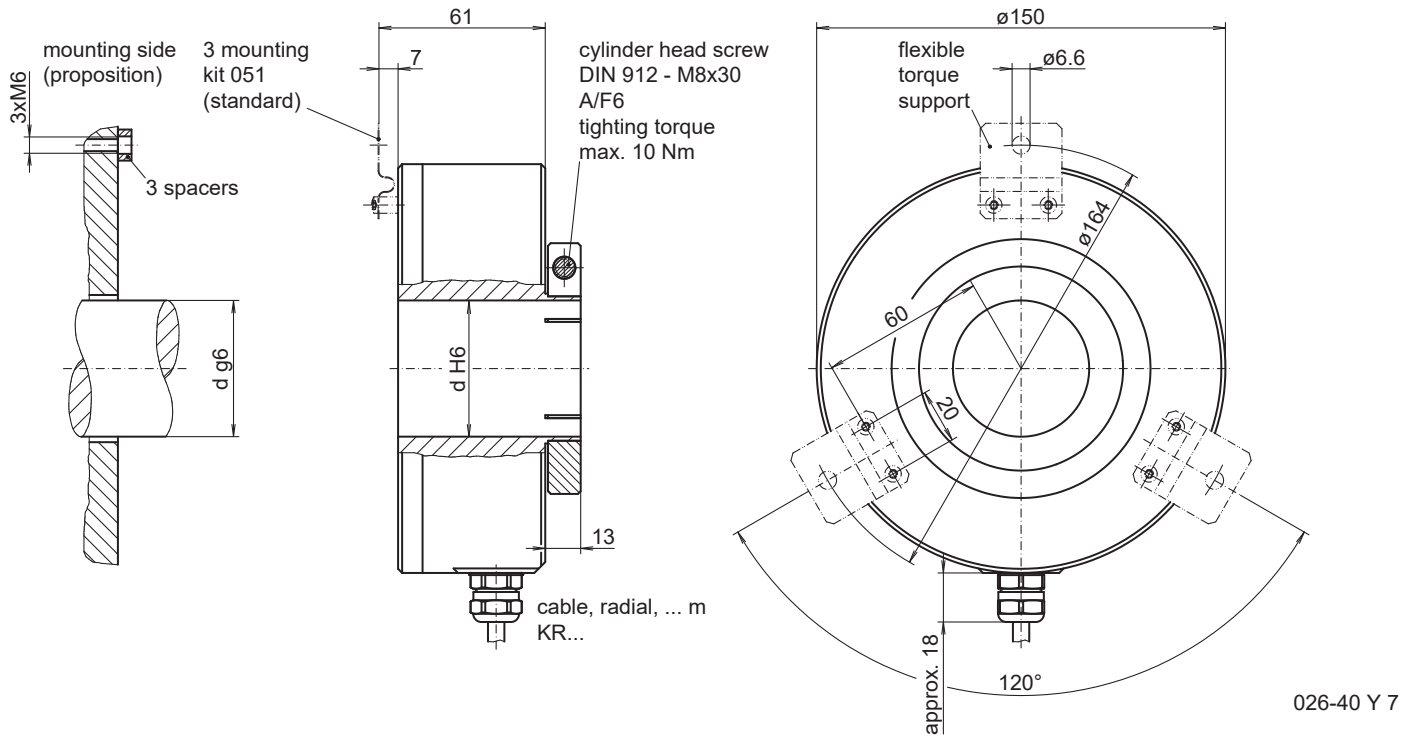
#### NI-Output signals



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## Dimensions



026-40 Y 7

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**Ordering reference**

	ITD 70 A 4 Y 7	#####	#	####	KR1	S	##	IP54	051
<b>Product</b>	ITD 70 A 4 Y 7								
<b>Pulse number</b>									
1000		1000							
1024		1024							
2048		2048							
2500		2500							
<b>Voltage supply / signals</b>									
5 VDC / TTL level, linedriver				T					
8...30 VDC / HTL level, push-pull				H					
8...30 VDC / TTL level, linedriver				R					
<b>Output signals</b>									
A, A inv, B, B inv				BI					
A, A inv, B, B inv, N, N inv				NI					
<b>Connection</b>									
Cable 1 m, radial					KR1				
<b>Operating temperature</b>									
-20...+70 °C						S			
<b>Through hollow shaft</b>									
$\varnothing 40$ mm							40		
$\varnothing 45$ mm							45		
$\varnothing 50$ mm							50		
$\varnothing 55$ mm							55		
$\varnothing 60$ mm							60		
$\varnothing 65$ mm							65		
<b>Protection</b>									
IP 54								IP54	
<b>Mounting kit</b>									
Mounting kit 051									051