

# Incremental encoders

Hollow shaft  $\varnothing 60$  to  $\varnothing 85$  mm

Resolution 1000...2500 pulses

## ITD 75 A 4



ITD 75 A 4 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)	1000...2500
Reference signal	Zero pulse, width $90^\circ$
Sensing method	Optical
Output frequency	$\leq 120$ kHz
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 hollow shaft max.  $\varnothing 85$  mm
- Resolution max. 2500 ppr
- Optical sensing
- Mounting hole circle  $\varnothing 162$  mm
- TTL or HTL output signals
- Without own bearings
- Cable output radial

### Optional

- Cable with connector

### Technical data - mechanical design

Dimensions (flange)	$\varnothing 150$ mm
Shaft	$\varnothing 60$ ...85 mm hollow shaft
Motor shaft tolerance	0.2 mm axial 0.2 mm radial
Protection DIN EN 60529	IP 54
Operating speed	$\leq 3000$ rpm
Materials	Housing: aluminium 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.	1500 g

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## Part number

ITD 75 A 4 

			<b>KR1</b>	<b>S</b>		<b>IP54</b>
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Protection  
IP54 IP 54

Hollow shaft  
60 Hollow shaft ø60 mm  
65 Hollow shaft ø65 mm  
70 Hollow shaft ø70 mm  
75 Hollow shaft ø75 mm  
80 Hollow shaft ø80 mm  
85 Hollow shaft ø85 mm

Operating temperature  
S -20...+70 °C

Connection  
KR1 Cable 1 m, radial

Output signals  
BI A, A inv, B, B inv  
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)

1000 | 1024 | 2048 | 2500

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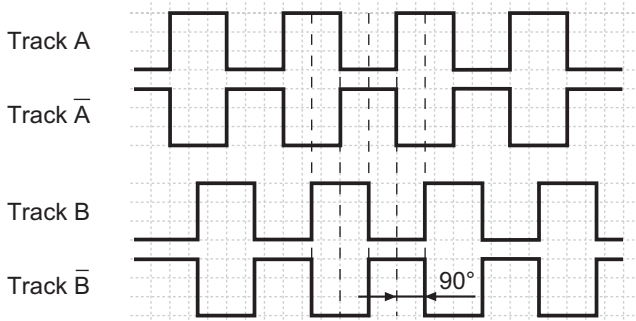
Resolution 1000...2500 pulses

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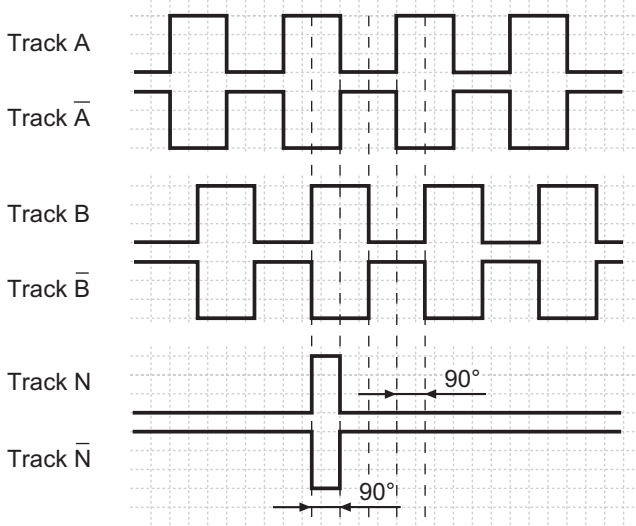
### Output signals

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

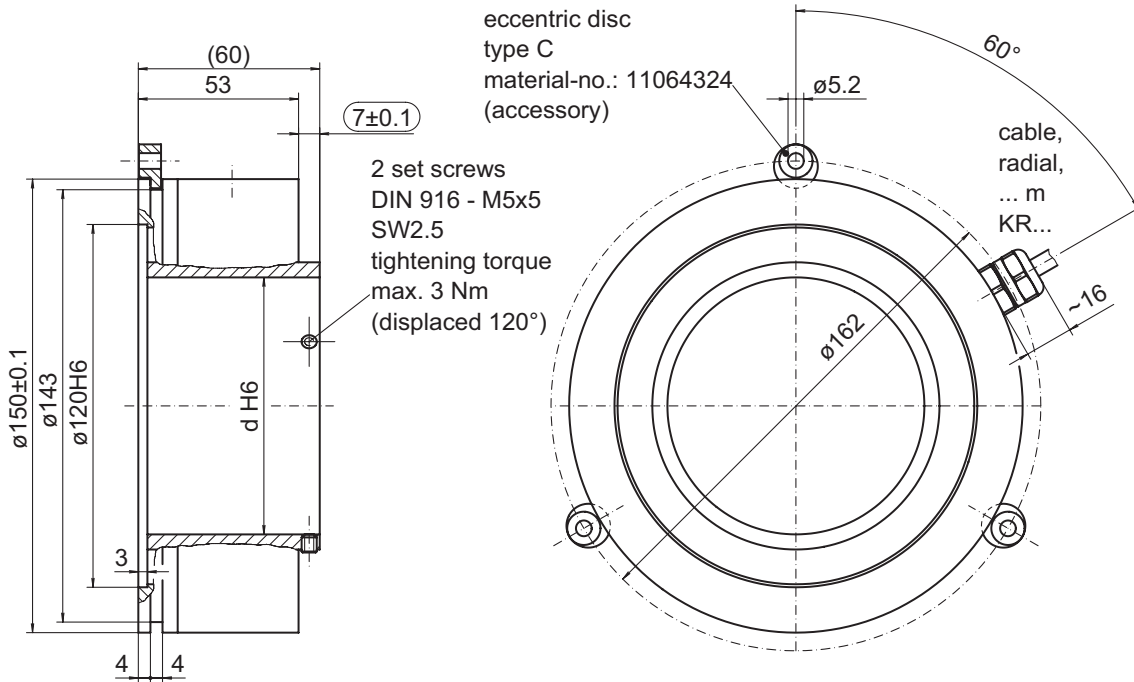
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## Dimensions



025-6