

## ITD 41 A 4 Y70

Through hollow shaft  $\varnothing 28$  to  $\varnothing 30$  mm

1024...10000 pulses per revolution

### Overview

- Encoder with through hollow shaft  $\varnothing 28$ ... $\varnothing 30$  mm
- Max. 10000 pulses per revolution
- Optical sensing method
- Mounting by torque support
- TTL or HTL output signals
- Cable output radial



### Technical data

#### Technical data - electrical ratings

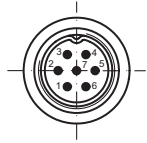
Voltage supply	5 VDC $\pm 5$ % 8...30 VDC
Reverse polarity protection	Yes
Consumption w/o load	$\leq 100$ mA
Pulses per revolution	1024 ... 10000
Reference signal	Zero pulse, width 90°
Sensing method	Optical
Output frequency	$\leq 300$ kHz (TTL) $\leq 160$ kHz (HTL)
Output signals	A, B, 0
Output stages	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)	$\varnothing 80$ mm
Shaft type	$\varnothing 28$ ... $\varnothing 30$ mm (through hollow shaft)
Mounting kit	050
Protection EN 60529	IP 54
Operating speed	$\leq 7000$ rpm
Starting torque	$\leq 0.01$ Nm (+20 °C)
Material	Housing: aluminium 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 30 g, 11 ms
Connection	Connector M16, 7-pin
Weight approx.	580 g

**Terminal assignment**

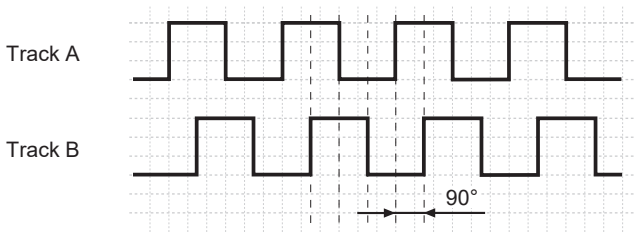
Connector	Assignment
Pin 3	Track A
Pin 4	Track B
Pin 5	Track N
Pin 2	UB
Pin 1	GND
Pin 6	–
Pin 7	Shield/Housing



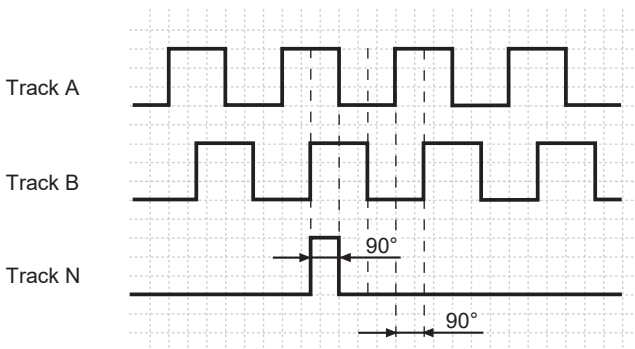
**Output signals**

Clockwise rotation when looking at the mounting side.

**BX-Output signals**



**NX-Output signals**



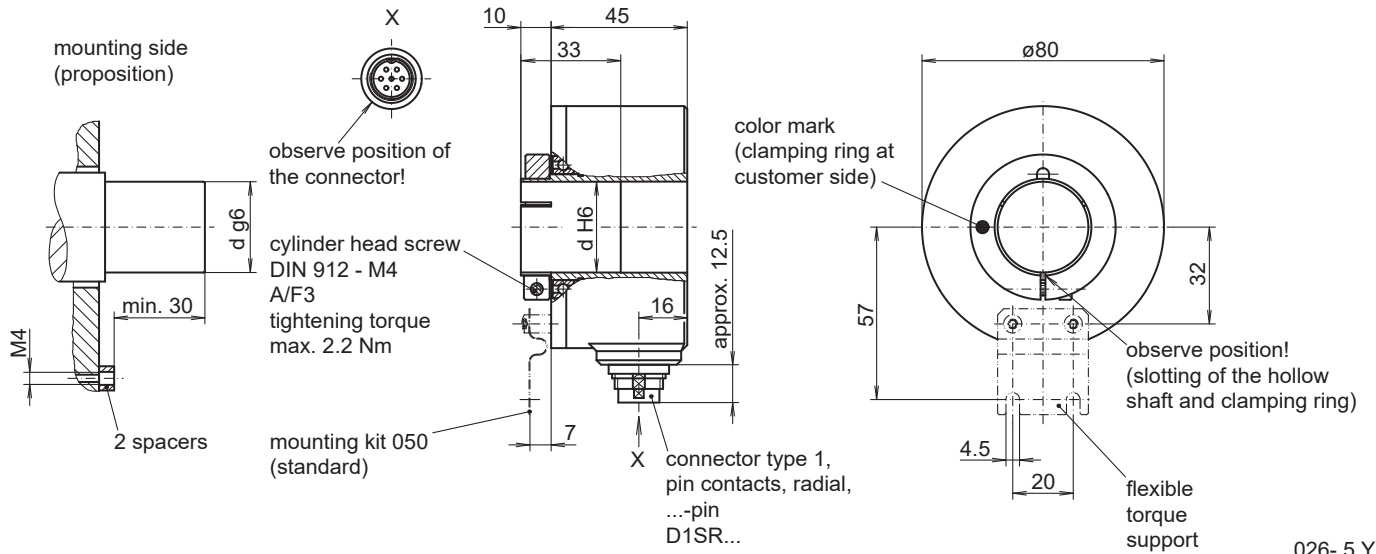
**Trigger level**

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	$\geq U_B - 3$ V
Output level Low	$\leq 1.5$ V
Load	$\leq 70$ mA

**Dimensions**



026- 5 Y70

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**Ordering reference**

		ITD 41 A 4 Y70	#####	#	####	D1SR7	S	##	IP54	050
<b>Product</b>		ITD 41 A 4 Y70								
		ITD 41 A 4 Y70								
<b>Pulse number</b>										
	1024		1024							
	2000		2000							
	2048		2048							
	2500		2500							
	3072		3072							
	3600		3600							
	4096		4096							
	5000		5000							
	10000		10000							
<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, B								BX	
	A, B, 0								NX	
<b>Connection</b>										
	Flange connector type 1, pin contacts, radial, 7-pin								D1SR7	
<b>Operating temperature</b>										
	-20...+70 °C								S	
<b>Through hollow shaft</b>										
	$\varnothing 28$ mm, clamping ring									28
	$\varnothing 29$ mm, clamping ring									29
	$\varnothing 30$ mm, clamping ring									30
<b>Protection</b>										
	IP 54									IP54
<b>Mounting kit</b>										
	Mounting kit 050									050