

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 ± 5 % 8...30 VDC
Reverse polarity protection	Yes
Consumption w/o load	≤ 100 mA
Pulses per revolution	1024 ... 10000
Reference signal	Zero pulse, width 90°
Sensing method	Optical
Output frequency	≤ 300 kHz (TTL) ≤ 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

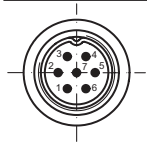
Size (flange)	$\varnothing 80$ mm
Shaft type	$\varnothing 28$... $\varnothing 30$ mm (through hollow shaft)
Mounting kit	050
Protection EN 60529	IP 54
Operating speed	≤ 7000 rpm
Starting torque	≤ 0.01 Nm (+20 °C)
Material	Housing: aluminium Shaft: stainless steel
Operating temperature	-20...+70 °C
Relative 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

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Terminal assignment

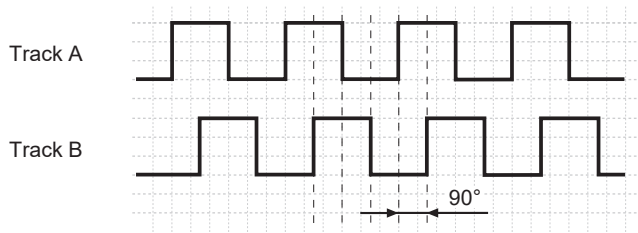
Connector	Assignment
Pin 3	Track A
Pin 4	Track B
Pin 5	Track N
Pin 2	UB
Pin 1	GND
Pin 6	-
Pin 7	Shield/Housing



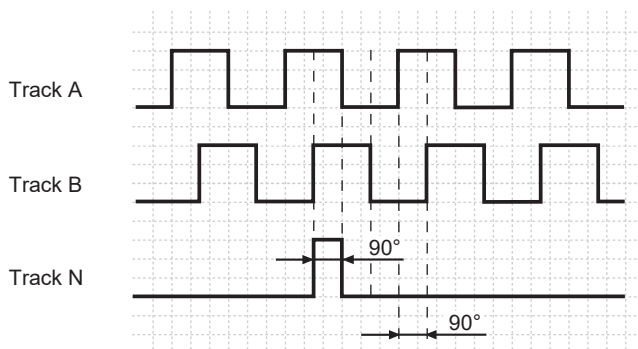
Output signals

Clockwise rotation when looking at the mounting side.

BX-Output signals



NX-Output signals



Trigger level

Outputs	Linedriver
Output level High	≥ 2.4 V
Output level Low	≤ 0.5 V
Load	≤ 70 mA

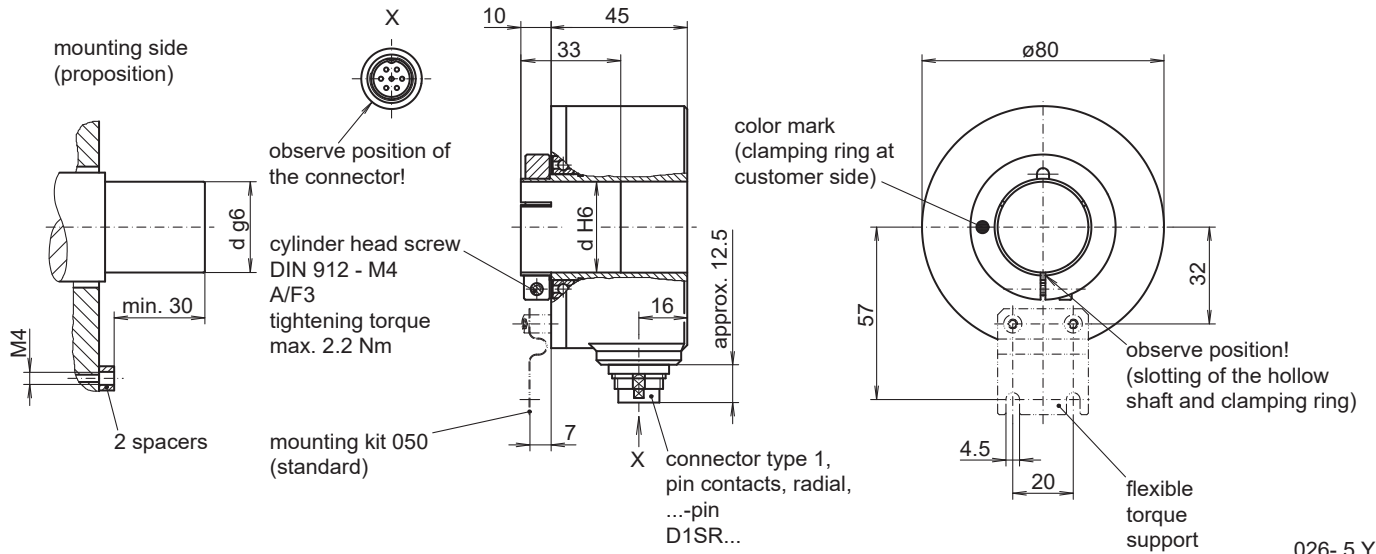
Outputs	Push-pull short-circuit proof
Output level High	$\geq U_B - 3$ V
Output level Low	≤ 1.5 V
Load	≤ 70 mA

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Dimensions



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Ordering reference

	ITD 41 A 4 Y70	#####	#	####	D1SR7	S	##	IP54	050
Product	ITD 41 A 4 Y70								
Pulse number	ITD 41 A 4 Y70								
1024		1024							
2000		2000							
2048		2048							
2500		2500							
3072		3072							
3600		3600							
4096		4096							
5000		5000							
10000		10000							
Voltage supply / signals									
5 VDC / TTL level, linedriver						T			
8...30 VDC / HTL level, push-pull						H			
8...30 VDC / TTL level, linedriver						R			
Output signals									
A, B								BX	
A, B, 0								NX	
Connection									
Flange connector type 1, pin contacts, radial, 7-pin								D1SR7	
Operating temperature									
-20...+70 °C								S	
Through hollow shaft									
$\varnothing 28$ mm, clamping ring									28
$\varnothing 29$ mm, clamping ring									29
$\varnothing 30$ mm, clamping ring									30
Protection									
IP 54									IP54
Mounting kit									
Mounting kit 050									050