

ITD 41 B10 Y 5

Solid shaft $\varnothing 11$ mm with EURO flange

1000...6000 pulses per revolution

Overview

- Encoder with solid shaft $\varnothing 11$ mm
- Max. 6000 pulses per revolution
- Optical sensing method
- Centering alignment $\varnothing 85$ mm, mounting screw hole circle $\varnothing 100$ mm
- Industrial standard with centering flange
- TTL or HTL output signals
- Terminal box axial, screw connection 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	1000 ... 6000
Reference signal	Zero pulse, width 90°
Sensing method	Optical
Output frequency	≤ 300 kHz (TTL) ≤ 160 kHz (HTL)
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)	$\varnothing 115$ mm
Shaft type	$\varnothing 11$ mm solid shaft

Technical data - mechanical design

Admitted shaft load	≤ 60 N axial ≤ 100 N radial
Flange	EURO flange B10
Protection EN 60529	IP 65
Operating speed	≤ 8000 rpm
Starting torque	≤ 0.015 Nm (+20 °C)
Material	Housing: aluminium Shaft: stainless steel
Operating temperature	-20...+70 °C -20...+100 °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	Terminal box, 12-pin, M16x1.5 connection, radial
Weight approx.	1150 g

Optional

- Extended operating temperature range

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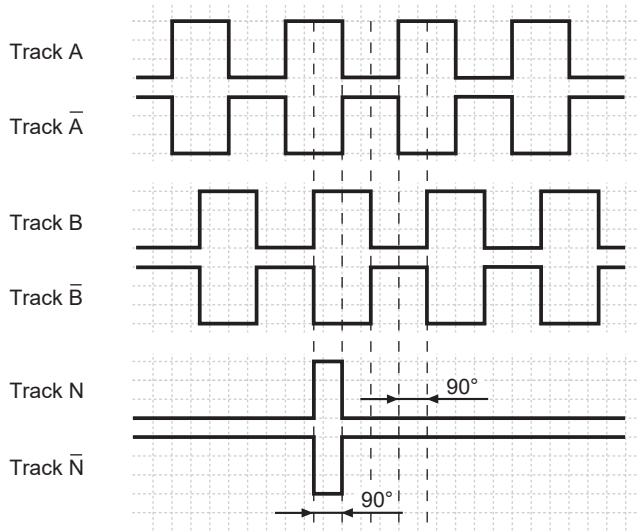
Terminal assignment

Terminal	Assignment
Pin 3	Track A
Pin 4	Track A inv.
Pin 5	Track B
Pin 6	Track B inv.
Pin 7	Track N
Pin 8	Track N inv.
Pin 2	UB
Pin 1	GND
Pin 9	UB-Sense
Pin 10	GND-Sense
Pin 11	NC
Pin 12	Shield/Housing

Output signals

Clockwise rotation when looking at the mounting side.

NI-Output signals



Trigger level

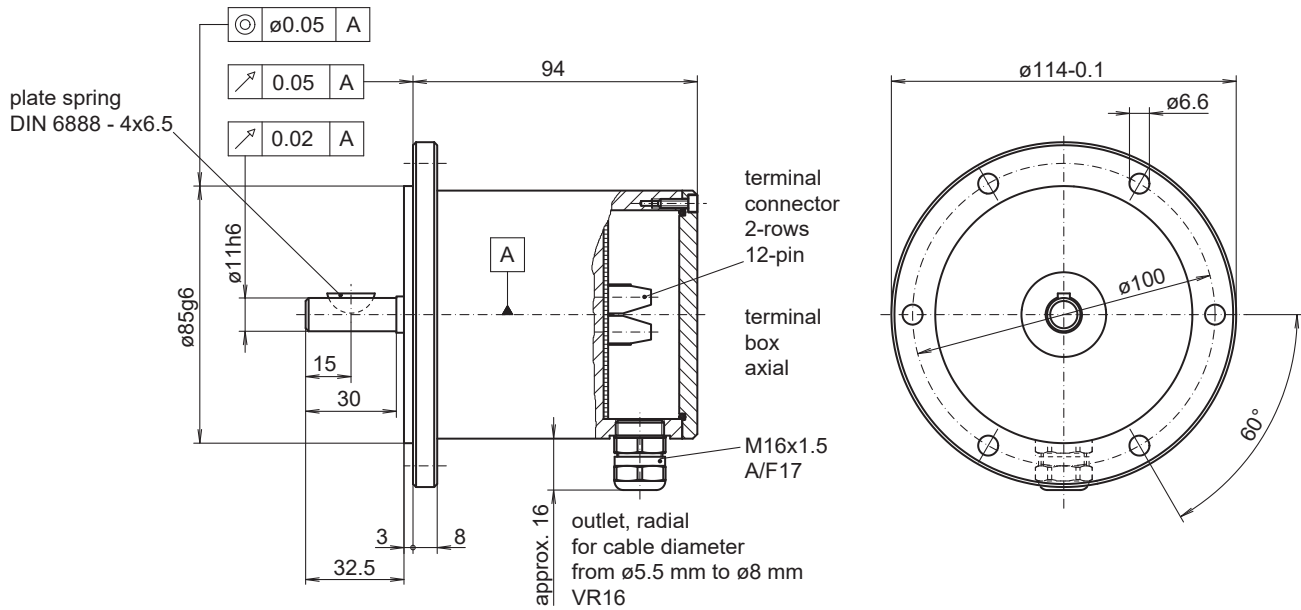
Outputs	Linedriver
Output level High	≥ 2.4 V
Output level Low	≤ 0.5 V
Load	≤ 70 mA
Outputs	Push-pull short-circuit proof
Output level High	$\geq UB - 3$ V
Output level Low	≤ 1.5 V
Load	≤ 70 mA

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Dimensions



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Ordering reference

		ITD 41 B10 Y 5	####	#	NI	VR16	#	11	IP65
Product		ITD 41 B10 Y 5							
Pulse number									
	1000		1000						
	1024		1024						
	1200		1200						
	1250		1250						
	1440		1440						
	1500		1500						
	1800		1800						
	2000		2000						
	2048		2048						
	2500		2500						
	3000		3000						
	3600		3600						
	4000		4000						
	4096		4096						
	5000		5000						
	6000		6000						
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, A inv, B, B inv, N, N inv					NI				
Connection									
Terminal box, axial, 12-pin, M16x1.5 connection, radial						VR16			
Operating temperature									
-20...+70 °C							S		
-20...+100 °C							E		
Flange / Solid shaft									
EURO flange B10 / ø11 mm								11	
Protection									
IP 65									IP65