

ITD 40 B10 Y 5

Solid shaft $\varnothing 11$ mm with EURO flange
200...2048 pulses per revolution

Overview

- Encoder with solid shaft $\varnothing 11$ mm
- Max. 2048 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	200 ... 2048
Reference signal	Zero pulse, width 90°
Sensing method	Optical
Output frequency	≤ 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)	$\varnothing 115$ 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 100 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

Trigger level

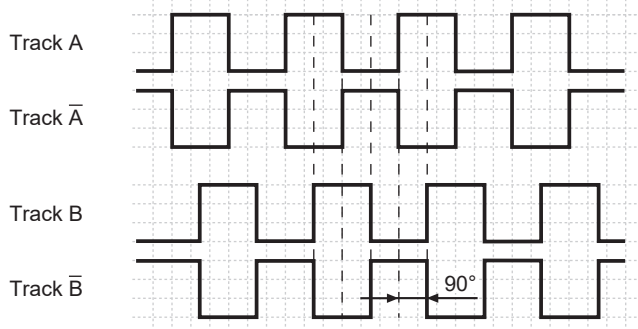
Outputs	Linedriver
Output level High	≥ 2.4 V
Output level Low	≤ 0.5 V
Load	≤ 70 mA

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

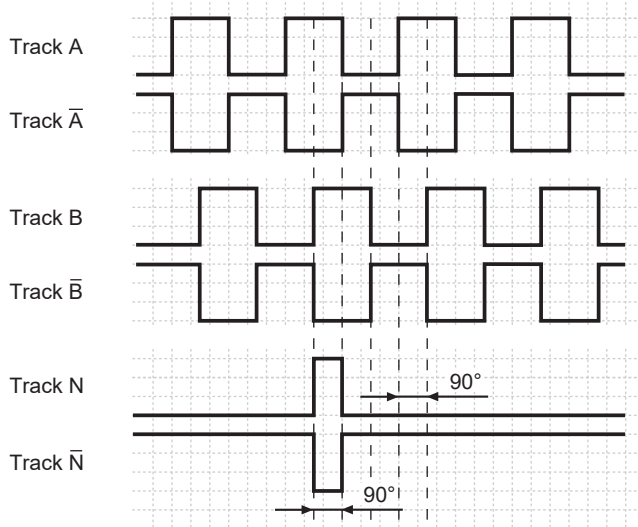
Output signals

Clockwise rotation when looking at the mounting side.

BI-Output signals



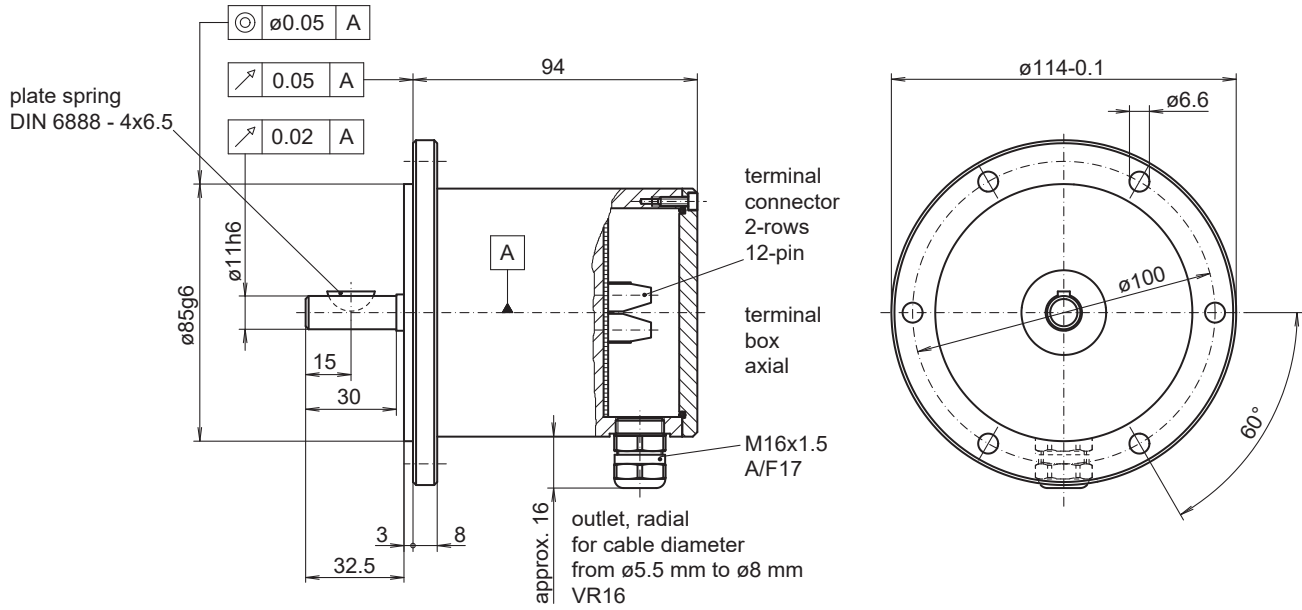
NI-Output signals



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Dimensions



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Ordering reference

		ITD 40 B10 Y 5	#####	#	####	VR16	#	11	IP65
Product		ITD 40 B10 Y 5							
		ITD 40 B10 Y 5							
Pulse number									
	200		200						
	360		360						
	500		500						
	512		512						
	720		720						
	1000		1000						
	1024		1024						
	2048		2048						
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				BI				
	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 / \varnothing 11 mm							11	
Protection									
	IP 65								IP65