

## ITD 41 B10 Y 4

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
- Dual bearing
- TTL or HTL output signals
- Flange connector radial or axial



### 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	1000 ... 6000
Reference signal	Zero pulse, width $90^\circ$
Sensing method	Optical
Output frequency	$\leq 300$ kHz (TTL) $\leq 160$ 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	$\leq 60$ N axial $\leq 100$ N radial
Flange	EURO flange B10
Protection EN 60529	IP 65
Operating speed	$\leq 8000$ rpm
Starting torque	$\leq 0.015$ 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	Connector M23 type 2, 12-pin
Weight approx.	950 g

### Optional

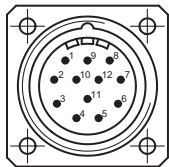
- Extended operating temperature range

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## Terminal assignment

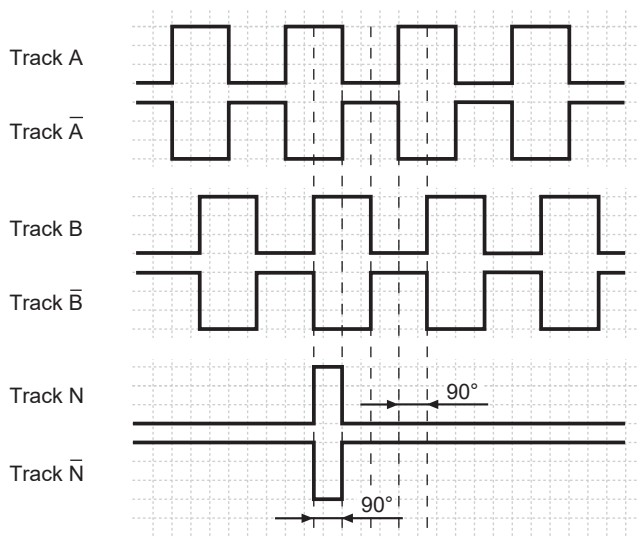
Connector	Assignment
Pin 5	Track A
Pin 6	Track A inv.
Pin 8	Track B
Pin 1	Track B inv.
Pin 3	Track N
Pin 4	Track N inv.
Pin 12	UB
Pin 10	GND
Pin 2	UB-Sense
Pin 11	GND-Sense
Pin 9	–
Pin 7	–



## Output signals

Clockwise rotation when looking at the mounting side.

NI-Output signals



## Trigger level

Outputs	Linedriver
Output level High	$\geq 2.4$ V
Output level Low	$\leq 0.5$ V
Load	$\leq 70$ mA

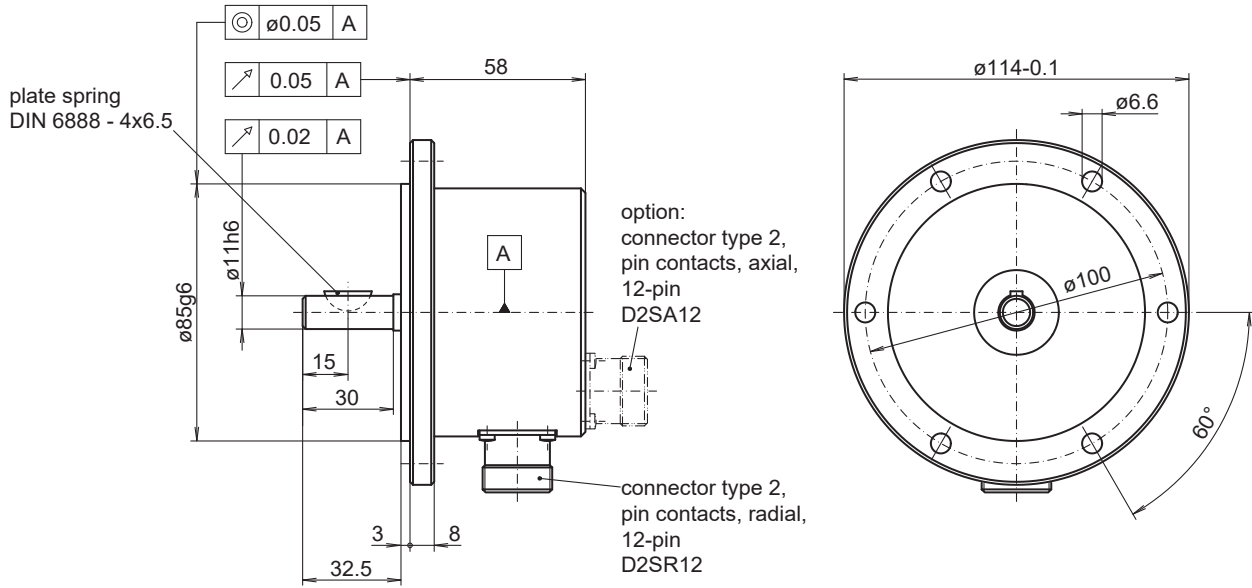
  

Outputs	Push-pull short-circuit proof
Output level High	$\geq UB - 3$ V
Output level Low	$\leq 1.5$ V
Load	$\leq 70$ mA

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## Dimensions



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**Ordering reference**

	<b>ITD 41 B10 Y 4</b>	<b>#####</b>	<b>#</b>	<b>NI</b>	<b>#####</b>	<b>#</b>	<b>11</b>	<b>IP65</b>
<b>Product</b>	ITD 41 B10 Y 4							
<b>Pulse number</b>								
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						
<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, A inv, B, B inv, N, N inv				NI				
<b>Connection</b>								
Flange connector type 2, pin contacts, radial, 12-pin					D2SR12			
Flange connector type 2, pin contacts, axial, 12-pin					D2SA12			
<b>Operating temperature</b>								
-20...+70 °C							S	
-20...+100 °C							E	
<b>Flange / Solid shaft</b>								
EURO flange B10 / $\varnothing$ 11 mm								11
<b>Protection</b>								
IP 65								IP65