

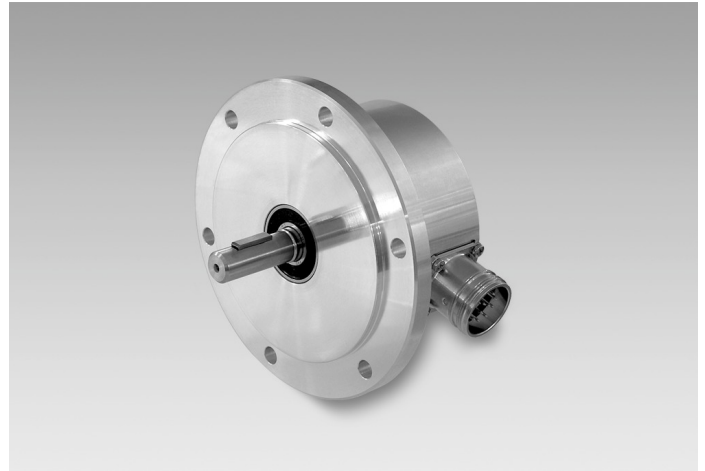
## ITD 4 B10 Y 1

Solid shaft  $\varnothing 11$  mm with EURO flange

5...60 pulses per revolution

### Overview

- Encoder with solid shaft  $\varnothing 11$  mm
- Max. 60 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
- 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	5 ... 60
Reference signal	Zero pulse, width $90^\circ$
Sensing method	Optical
Output frequency	$\leq 60$ 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	$\leq 40$ N axial $\leq 60$ N radial
Flange	EURO flange B10
Protection EN 60529	IP 65
Operating speed	$\leq 12000$ rpm
Starting torque	$\leq 0.012$ 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 100 g, 11 ms
Connection	Connector M23 type 2, 12-pin
Weight approx.	850 g

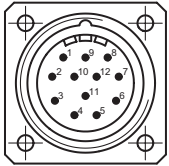
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### Terminal assignment

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	-



### Trigger level

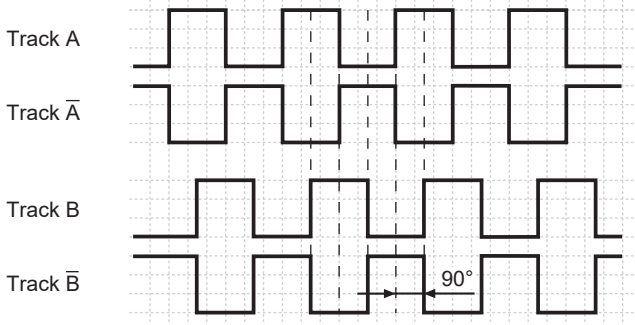
Outputs	Linedriver
Output level High	$\geq 2.4$ V
Output level Low	$\leq 0.5$ V
Load	$\leq 70$ mA

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

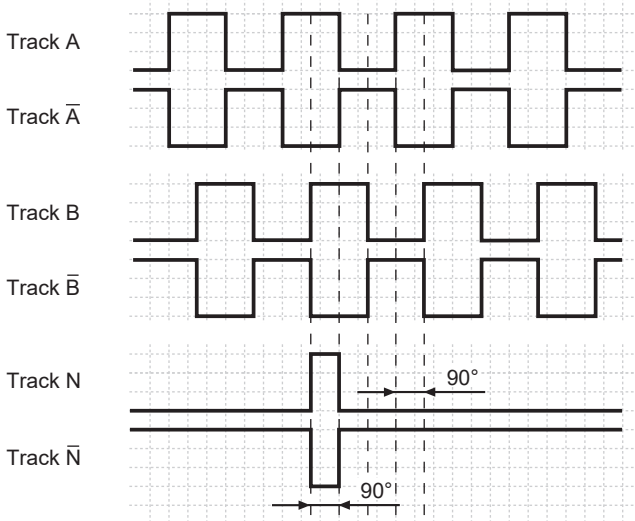
### Output signals

Clockwise rotation when looking at the mounting side.

#### BI-Output signals



#### NI-Output signals

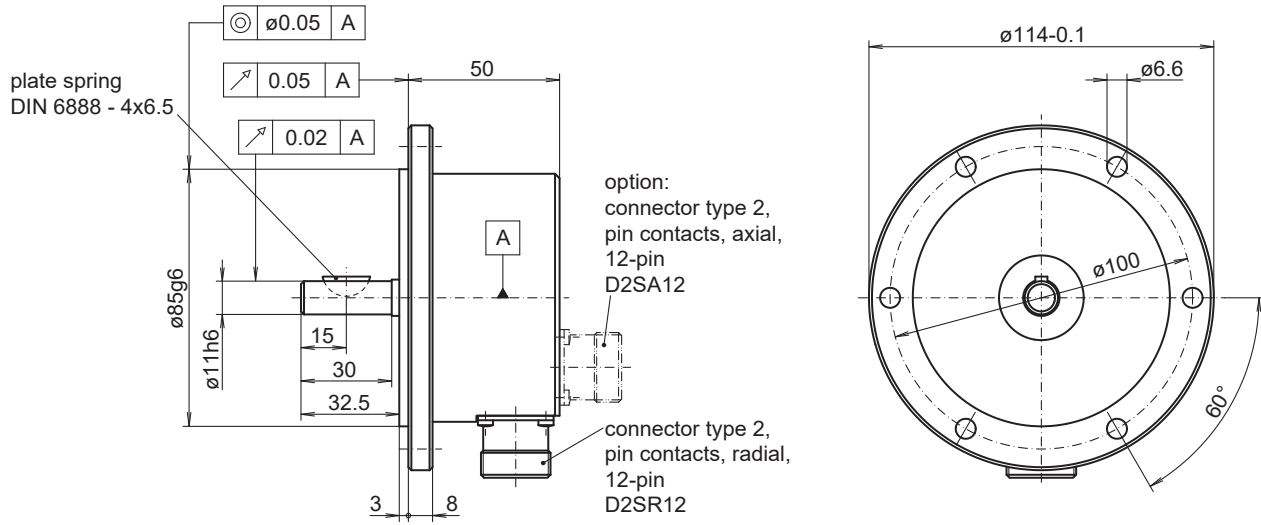


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## Dimensions



025- 7 Y 1

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**Ordering reference**

	<b>ITD 4 B10 Y 1</b>	<b>#####</b>	<b>#</b>	<b>####</b>	<b>#####</b>	<b>S</b>	<b>11</b>	<b>IP65</b>
<b>Product</b>	ITD 4 B10 Y 1							
<b>Pulse number</b>								
5		5						
16		16						
32		32						
60		60						
<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				BI				
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		
<b>Flange / Solid shaft</b>								
EURO flange B10 / ø11 mm							11	
<b>Protection</b>								
IP 65								IP65