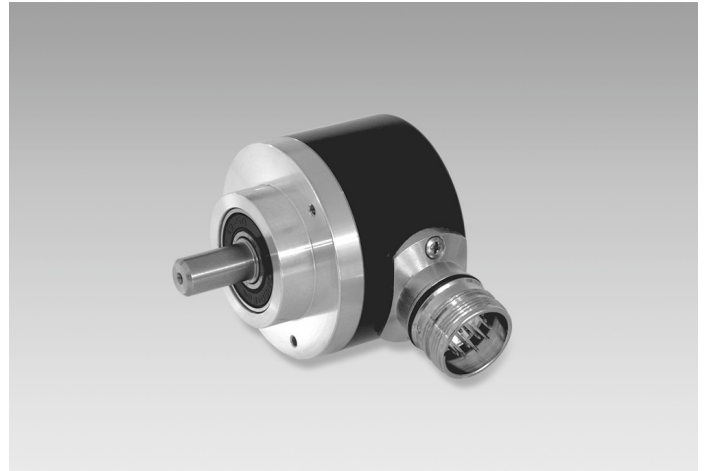


## ITD 20 B14 Y11

Solid shaft  $\varnothing 10$  mm with clamping flange  
50...1024 pulses per revolution

### Overview

- Encoder with solid shaft  $\varnothing 10$  mm
- Max. 1024 pulses per revolution
- Optical sensing method
- Centering alignment  $\varnothing 36$  mm, mounting screw hole circle  $\varnothing 48$  mm
- Industrial standard
- TTL or HTL output signals
- Flange connector radial



### 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	50 ... 1024
Reference signal	Zero pulse, width $90^\circ$
Sensing method	Optical
Output frequency	$\leq 120$ 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)	$\varnothing 58$ mm
Shaft type	$\varnothing 10$ mm solid shaft (clamping flange)

#### Technical data - mechanical design

Admitted shaft load	$\leq 40$ N axial $\leq 60$ N radial
Flange	Clamping flange
Protection EN 60529	IP 65
Operating speed	$\leq 12000$ rpm
Starting torque	$\leq 0.01$ Nm ( $+20^\circ\text{C}$ )
Material	Housing: aluminium, black, powder-coated Shaft: stainless steel
Operating temperature	$-20...+70^\circ\text{C}$ $-20...+100^\circ\text{C}$
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.	270 g

### Optional

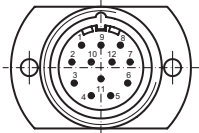
- Extended operating temperature range

# ITD 20 B14 Y11

Solid shaft  $\varnothing 10$  mm with clamping flange  
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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

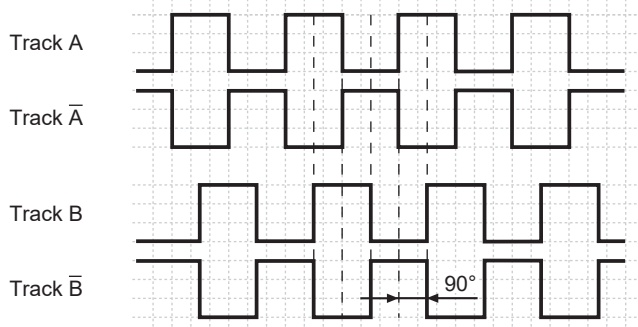
Outputs	Linedriver
Output level High	$\geq 2.4$ V
Output level Low	$\leq 0.5$ V
Load	$\leq 70$ mA

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

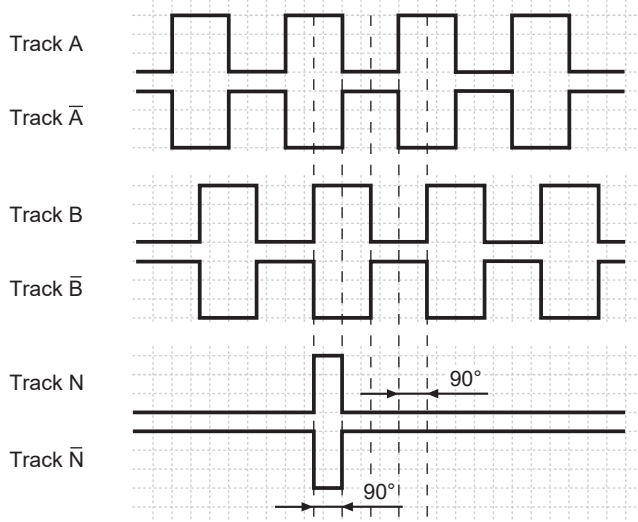
### Output signals

Clockwise rotation when looking at the mounting side.

#### BI-Output signals



#### NI-Output signals

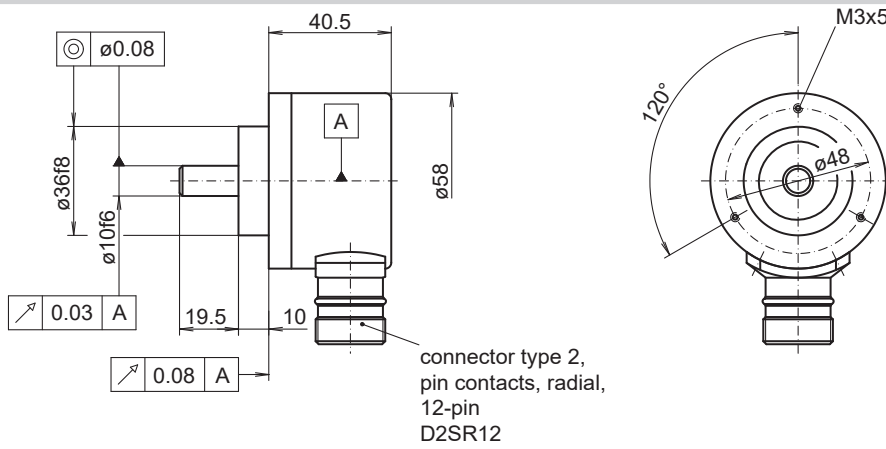


# ITD 20 B14 Y11

Solid shaft  $\varnothing 10$  mm with clamping flange

50...1024 pulses per revolution

## Dimensions



# ITD 20 B14 Y11

 Solid shaft  $\varnothing$ 10 mm with clamping flange

50...1024 pulses per revolution

**Ordering reference**

	ITD 20 B14 Y11	#####	#	####	D2SR12	#	10	IP65
<b>Product</b>	ITD 20 B14 Y11							
<b>Pulse number</b>	ITD 20 B14 Y11							
50		50						
60		60						
64		64						
88		88						
90		90						
100		100						
120		120						
128		128						
200		200						
250		250						
254		254						
256		256						
360		360						
400		400						
500		500						
512		512						
600		600						
1000		1000						
1024		1024						
<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
<b>Operating temperature</b>								
-20...+70 °C								S
-20...+100 °C								E
<b>Flange / Solid shaft</b>								
Clamping flange / $\varnothing$ 10 mm								10
<b>Protection</b>								
IP 65								IP65