

# Incremental encoders

Shaft  $\varnothing 11$  mm with EURO flange

Resolution 1000...6000 pulses

## ITD 41 B10 Y 5



ITD 41 B10 Y 5 with EURO flange

### Technical data - electrical ratings

Voltage supply	5 VDC $\pm 5$ % 8...30 VDC
Reverse polarity protection	Yes
Consumption w/o load	$\leq 100$ mA
Resolution (steps/turn)	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 circuit	TTL linedriver (short-circuit proof) HTL push-pull (short-circuit proof)
Interference immunity	DIN EN 61000-6-2
Emitted interference	DIN EN 55011

### Features

- Encoder with shaft  $\varnothing 11$  mm
- Resolution max. 6000 ppr
- Optical sensing
- 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

### Optional

- Extended operating temperature range

### Technical data - mechanical design

Dimensions (flange)	$\varnothing 82$ mm
Shaft	$\varnothing 11$ mm
Shaft loading	$\leq 60$ N axial $\leq 100$ N radial
Flange	EURO flange B10
Protection DIN EN 60529	IP 65
Operating speed	$\leq 8000$ rpm
Starting torque	$\leq 0.015$ Nm
Materials	Housing: aluminium Shaft: stainless steel
Operating temperature	$-20...+70$ °C $-20...+100$ °C
Relative humidity	90 % non-condensing
Resistance	DIN EN 60068-2-6 Vibration 10 g, 55-2000 Hz DIN EN 60068-2-27 Shock 30 g, 11 ms
Connection	Terminal box, 12-pin, M16x1.5 connection, radial
Weight approx.	1150 g

# Incremental encoders

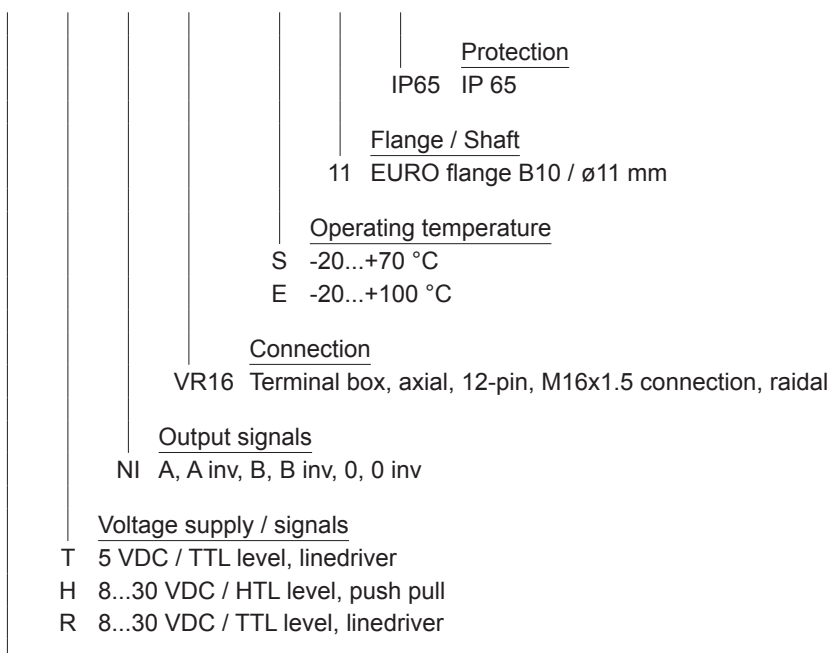
Shaft  $\varnothing$ 11 mm with EURO flange  
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## Part number

ITD 41 B10 Y 5 

		NI	VR16		11	IP65
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See part number (pulses)

## Part number (pulses)

1000	1440	2048	4000
1024	1500	2500	4096
1200	1800	3000	5000
1250	2000	3600	6000

# Incremental encoders

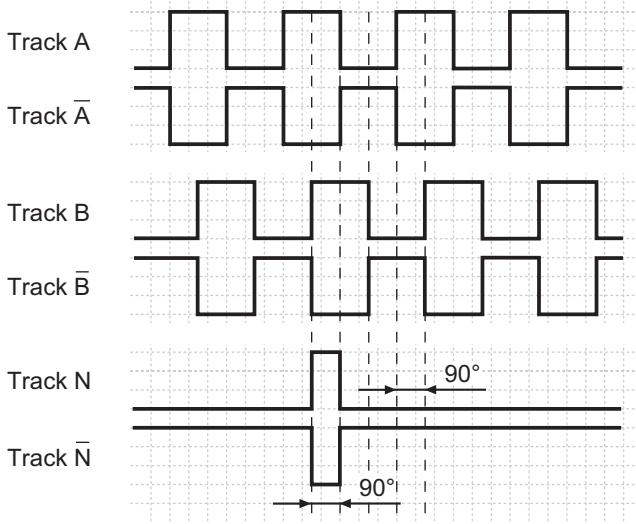
Shaft  $\varnothing 11$  mm with EURO flange  
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### Output signals

Clockwise rotation when looking at the mounting side.

NI-Output signals



### Terminal assignment

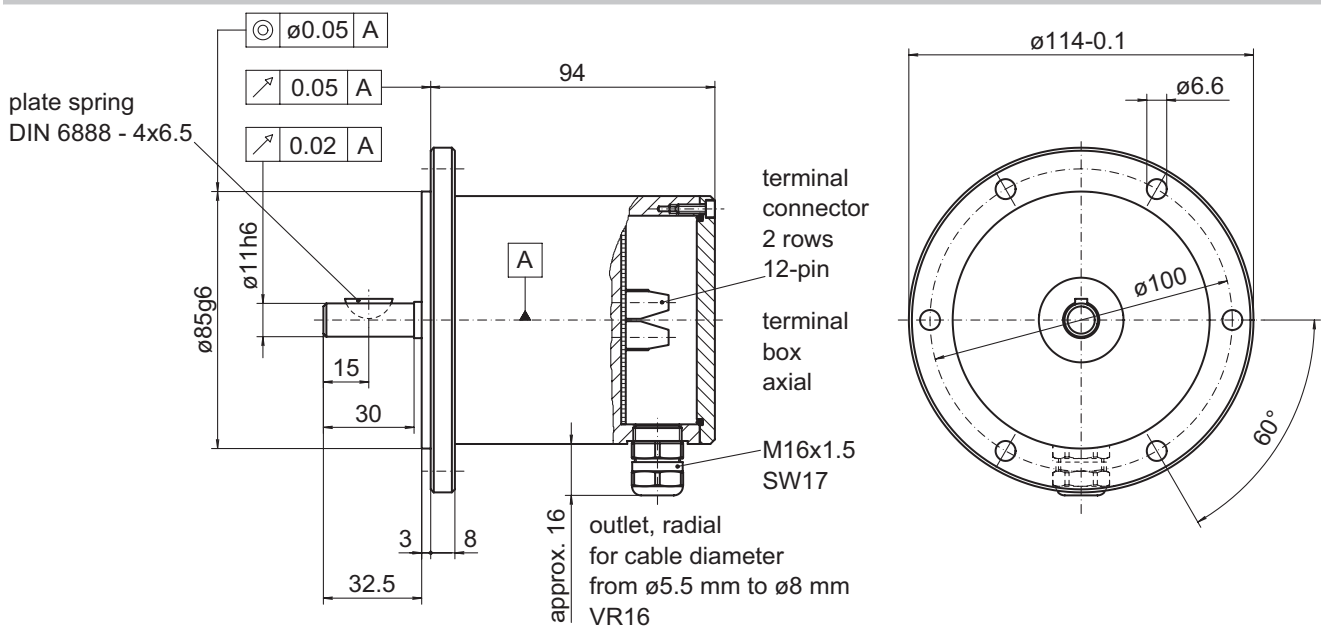
Terminal	Assignment
Pin 3	Track A
Pin 4	Track A inv.
Pin 5	Track B
Pin 6	Track B inv.
Pin 7	Track N
Pin 8	Track N inv.
Pin 2	UB
Pin 1	GND
Pin 9	UB-Sense
Pin 10	GND-Sense
Pin 11	NC
Pin 12	Shield/Housing

### Trigger level

Outputs	Linedriver
Output level High	$\geq 2.4$ 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

### Dimensions



025- 7 Y 5

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