

Incremental encoders

Shaft \varnothing 11 mm with EURO flange

Resolution 5...100 pulses

ITD 4 B10 Y 5



ITD 4 B10 Y 5 with EURO flange

Features

- Encoder with shaft \varnothing 11 mm
- Resolution max. 100 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

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)	5...100
Reference signal	Zero pulse, width 90°
Sensing method	Optical
Output frequency	\leq 60 kHz
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

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
Relative humidity	90 % non-condensing
Resistance	DIN EN 60068-2-6 Vibration 10 g, 55-2000 Hz DIN EN 60068-2-27 Shock 100 g, 11 ms
Connection	Terminal box, 12-pin, M16x1.5 connection, radial
Weight approx.	1150 g

Incremental encoders

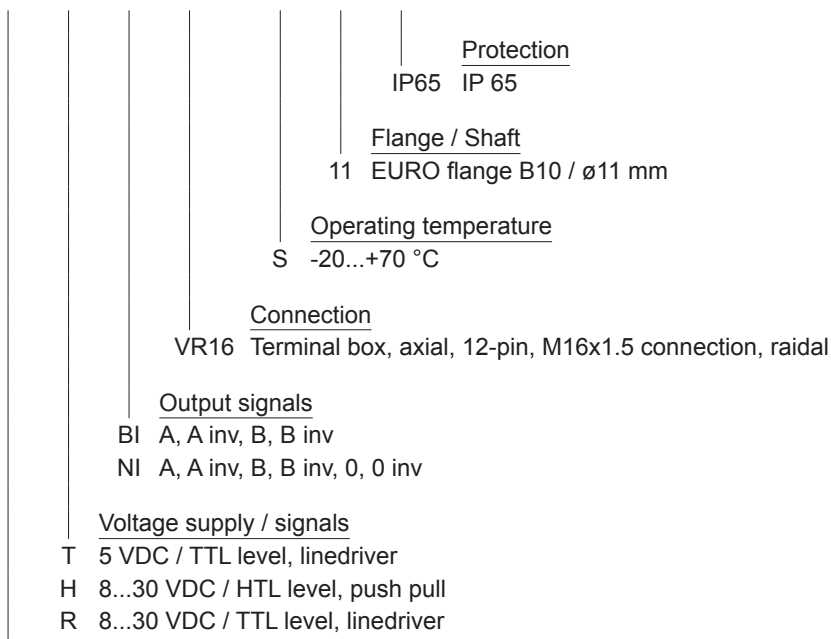
Shaft \varnothing 11 mm with EURO flange
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Part number

ITD 4 B10 Y 5

			VR16	S	11	IP65
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See part number (pulses)

Part number (pulses)

5	16	60	100
8	32	64	

Incremental encoders

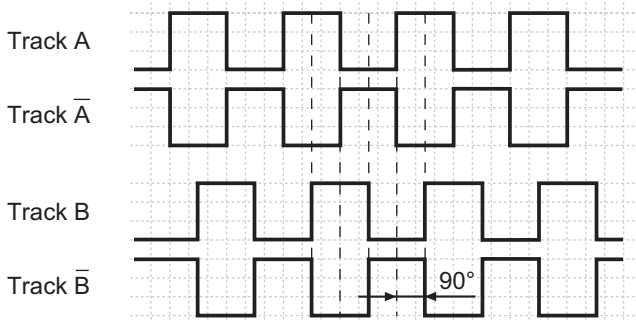
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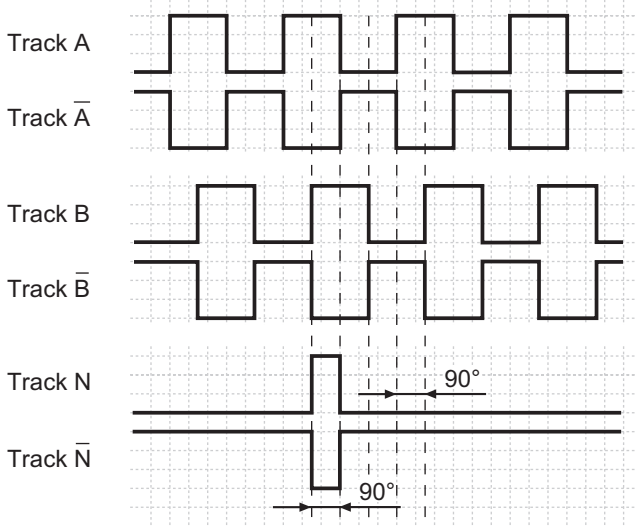
Output signals

Clockwise rotation when looking at the mounting side.

BI-Output signals



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	≥ 2.4 V
Output level Low	≤ 0.5 V
Load	≤ 70 mA

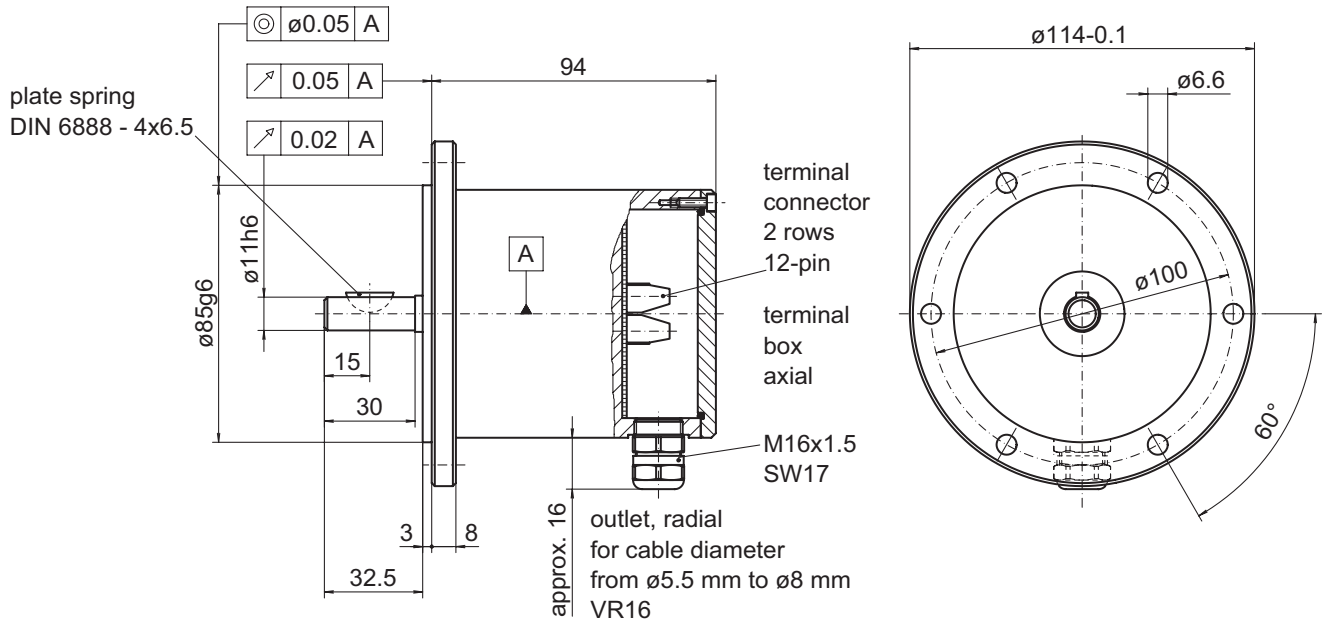
Outputs	Push-pull short-circuit proof
Output level High	$\geq UB - 3$ V
Output level Low	≤ 1.5 V
Load	≤ 70 mA

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Dimensions



025- 7 Y 5