

Incremental encoders

Solid shaft $\varnothing 11$ mm with EURO flange
200...2048 pulses per revolution



ITD 40 B10



ITD 40 B10 with EURO flange

Features

- Encoder with solid shaft $\varnothing 11$ mm
- Max. 2048 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
- Cable output radial or axial

Optional

- Extended operating temperature range

Technical data - electrical ratings

Voltage supply	5 VDC ± 5 % 8...30 VDC
Reverse polarity protection	Yes
Consumption w/o load	≤ 100 mA
Pulses per revolution	200...2048
Reference signal	Zero pulse, width 90°
Sensing method	Optical
Output frequency	≤ 120 kHz
Output signals	A, B, N + inverted
Output stages	TTL linedriver (short-circuit proof) HTL push-pull (short-circuit proof)
Interference immunity	DIN EN 61000-6-2
Emitted interference	DIN EN 61000-6-3

Technical data - mechanical design

Size (flange)	$\varnothing 115$ mm
Shaft type	$\varnothing 11$ mm solid shaft
Admitted shaft load	≤ 40 N axial ≤ 60 N radial
Flange	EURO flange B10
Protection	DIN EN 60529 IP 65
Operating speed	≤ 12000 rpm
Starting torque	≤ 0.012 Nm ($+20^\circ\text{C}$)
Materials	Housing: aluminium Shaft: stainless steel
Operating temperature	$-20...+70^\circ\text{C}$ $-20...+100^\circ\text{C}$
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	Cable 1 m
Weight approx.	850 g

* Subject to modification in technic and design. Errors and omissions excepted.

Part number

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			KR1		11	IP65
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						<u>Protection</u> IP65 IP 65
						<u>Flange / Solid shaft</u> 11 EURO flange B10 / $\varnothing 11$ mm
						<u>Operating temperature</u> S -20...+70 °C E -20...+100 °C
						<u>Connection</u> KR1 Cable 1 m, radial
						<u>Output signals</u> BI A, A inv, B, B inv NI A, A inv, B, B inv, 0, 0 inv
						<u>Voltage supply / signals</u> T 5 VDC / TTL level, linedriver H 8...30 VDC / HTL level, push-pull R 8...30 VDC / TTL level, linedriver

Pulse number - see table

Pulse number

200	500	720	1024
360	512	1000	2048

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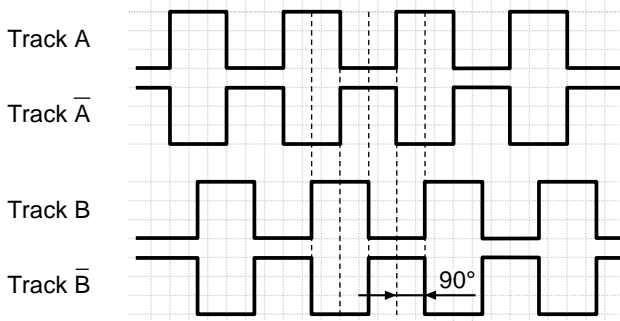


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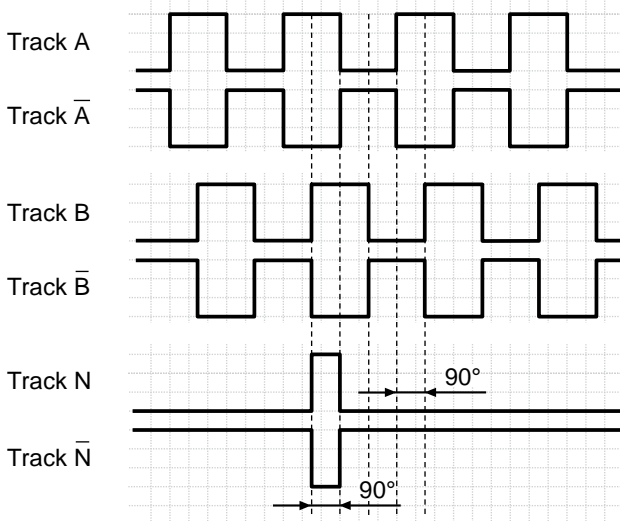
Output signals

Clockwise rotation when looking at the mounting side.

BI-Output signals



NI-Output signals



Terminal assignment

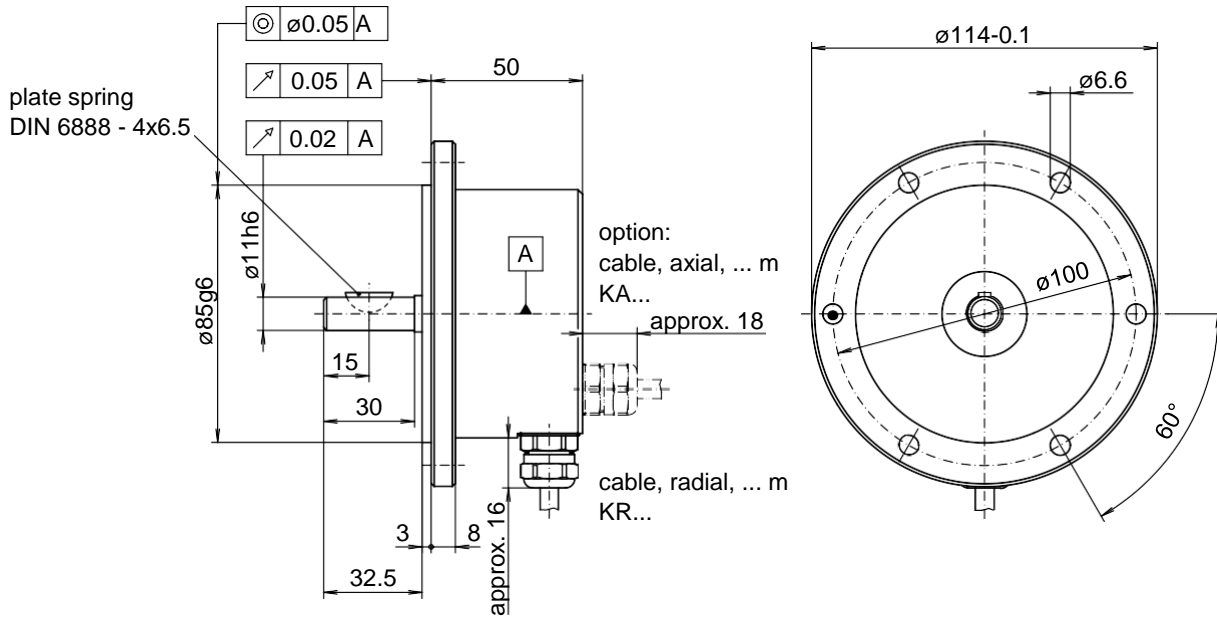
Core colour	Assignment
brown	Track A
green	Track A inv.
grey	Track B
pink	Track B inv.
red	Track N
black	Track N inv.
brown 0,5 mm ²	UB
white 0,5 mm ²	GND
blue	UB-Sense
white	GND-Sense
transparent	Shield/Housing

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

Dimensions



025-7