

Incremental encoders

Shaft $\varnothing 11$ mm with EURO flange

Resolution 5...100 pulses

ITD 4 B10 Y 4



ITD 4 B10 Y 4 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
- Dual bearing
- TTL or HTL output signals
- Flange socket radial or axial

Technical data - electrical ratings

| | |
|-----------------------------|---|
| Voltage supply | 5 VDC ± 5 % 8...30 VDC |
| Reverse polarity protection | Yes |
| Consumption w/o load | ≤ 100 mA |
| Resolution (steps/turn) | 5...100 |
| Reference signal | Zero pulse, width 90° |
| Sensing method | Optical |
| Output frequency | ≤ 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 | ≤ 60 N axial ≤ 100 N radial |
| Flange | EURO flange B10 |
| Protection DIN EN 60529 | IP 65 |
| Operating speed | ≤ 8000 rpm |
| Starting torque | ≤ 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 | Connector M23 type 2, 12-pin |
| Weight approx. | 950 g |

Incremental encoders

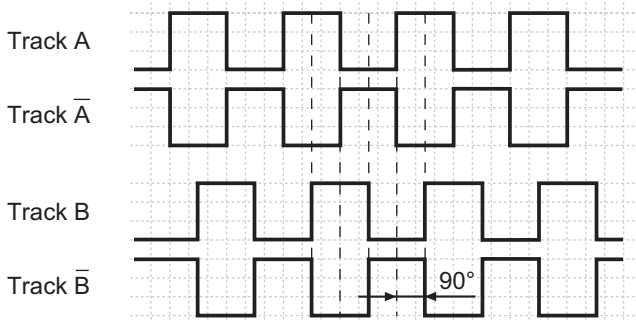
Shaft $\varnothing 11$ mm with EURO flange
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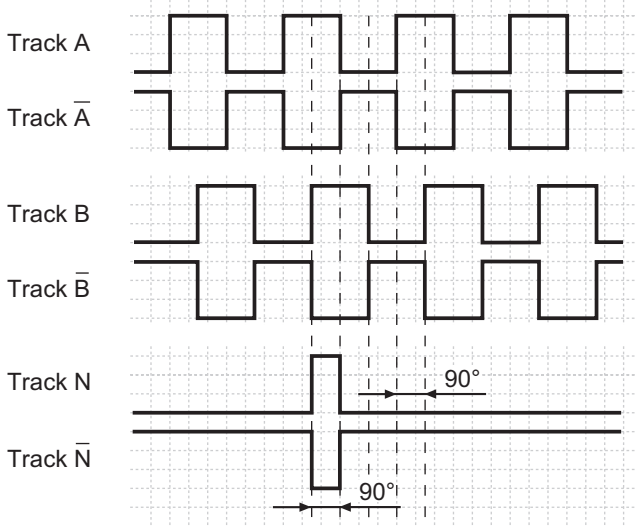
Output signals

Clockwise rotation when looking at the mounting side.

BI-Output signals

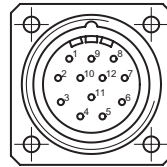


NI-Output signals



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 | ≥ 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

