

Incremental encoders

Mini encoder with end shaft $\varnothing 4$ mm

Resolution 30...1024 pulses

ITD 01 A 4 Y 1



ITD 01 A 4 Y 1 with end shaft

Features

- Mini encoder with end shaft $\varnothing 4$ mm
- Resolution max. 1024 ppr
- Optical sensing
- Outer diameter $\varnothing 24$ mm
- TTL or HTL output signals
- Cable output radial
- Clamping ring torsion-proof

Technical data - electrical ratings

| | |
|-----------------------------|--------------------------------------|
| Voltage supply | 5 VDC ± 5 % 8...30 VDC |
| Reverse polarity protection | Yes |
| Consumption w/o load | ≤ 25 mA |
| Resolution (steps/turn) | 30...1024 |
| Reference signal | Zero pulse, width 90° |
| Sensing method | Optical |
| Output frequency | ≤ 100 kHz |
| Output signals | A 90° B, N |
| Output circuit | TTL Push-pull short-circuit proof |

Technical data - mechanical design

| | |
|-------------------------|--|
| Housing | $\varnothing 24$ mm |
| Shaft | $\varnothing 4$ mm end shaft |
| Mounting kit variant | 101 |
| Protection DIN EN 60529 | IP 54 |
| Operating speed | ≤ 10000 rpm |
| Starting torque | ≤ 0.007 Nm |
| Motor shaft tolerance | 0.25 mm axial 0.1 mm radial |
| Materials | Housing: aluminium Shaft: stainless steel |
| Operating temperature | $-20...+85$ °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 |
| Weight approx. | 50 g |
| Connection | Cable 1 m |

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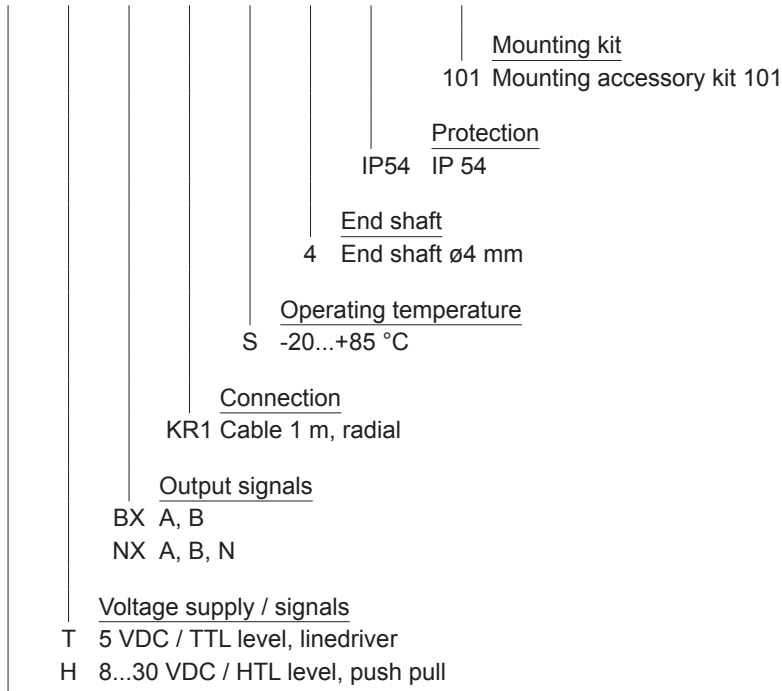
Resolution 30...1024 pulses

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Part number

ITD 01 A 4 Y 1

| | | | | | | | |
|--|--|--|-----|---|---|------|-----|
| | | | KR1 | S | 4 | IP54 | 101 |
|--|--|--|-----|---|---|------|-----|



See part number (pulses)

Part number (pulses)

| | | | | |
|----|-----|-----|------|------|
| 30 | 100 | 360 | 600 | 1024 |
| 60 | 300 | 500 | 1000 | |

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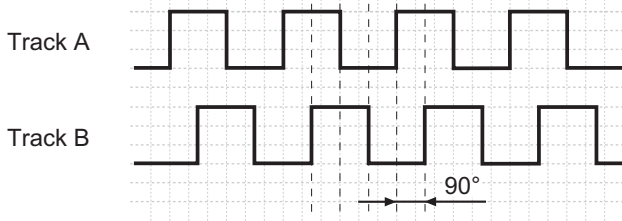
Resolution 30...1024 pulses

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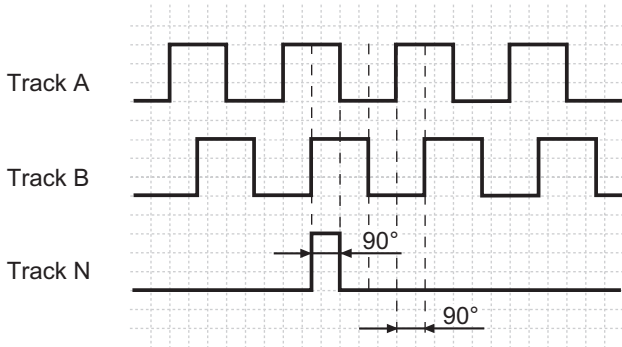
Output signals

Clockwise rotation when looking at the mounting side.

BX-Output signals



NX-Output signals



Terminal assignment

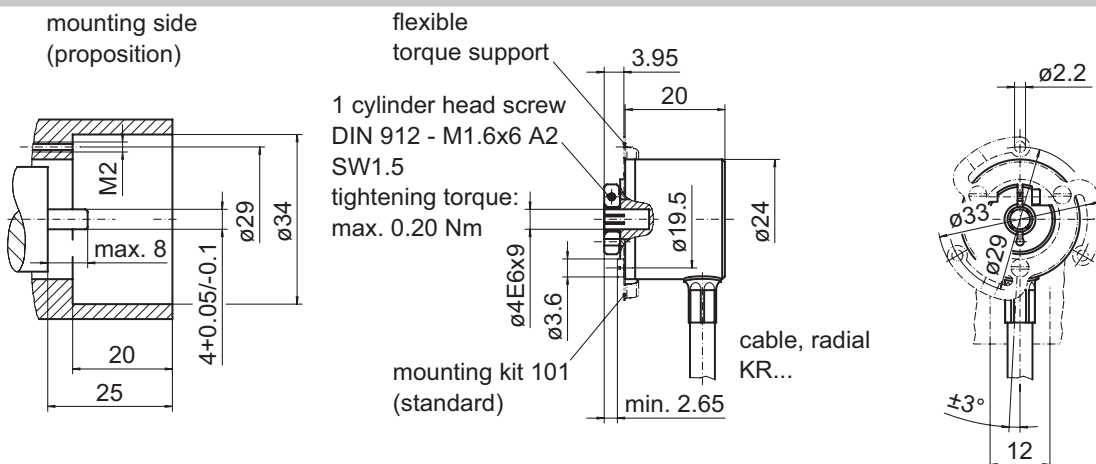
| Core colour | Assignment |
|-------------|----------------|
| green | Track A |
| yellow | Track B |
| grey | Track N |
| brown | UB |
| white | GND |
| transparent | Shield/Housing |

Trigger level

| Outputs | Linedriver |
|-------------------|--------------|
| Output level High | ≥ 2.4 V |
| Output level Low | ≤ 0.5 V |
| Load | ≤ 30 mA |

| Outputs | Push-pull short-circuit proof |
|-------------------|-------------------------------|
| Output level High | $\geq UB - 3$ V |
| Output level Low | ≤ 1.5 V |
| Load | ≤ 30 mA |

Dimensions



031- 1 Y 1

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