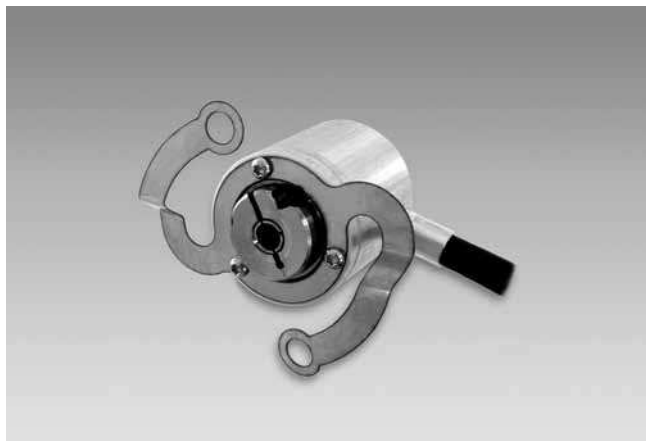


Incremental encoders

Mini encoder with end shaft $\varnothing 4$ mm

Resolution 30...1024 pulses

ITD 01 A 4 Y 4



ITD 01 A 4 Y 4 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, 0
Output circuit	TTL Push-pull short-circuit proof

Technical data - mechanical design

Dimensions (flange)	$\varnothing 24$ mm
Shaft	$\varnothing 4$ mm end shaft
Motor shaft tolerance	0.25 mm axial 0.1 mm radial
Mounting kit variant	102
Protection DIN EN 60529	IP 64
Operating speed	≤ 10000 rpm
Starting torque	≤ 0.005 Nm
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
Connection	Cable 1 m
Weight approx.	45 g

Incremental encoders

Mini encoder with end shaft $\varnothing 4$ mm

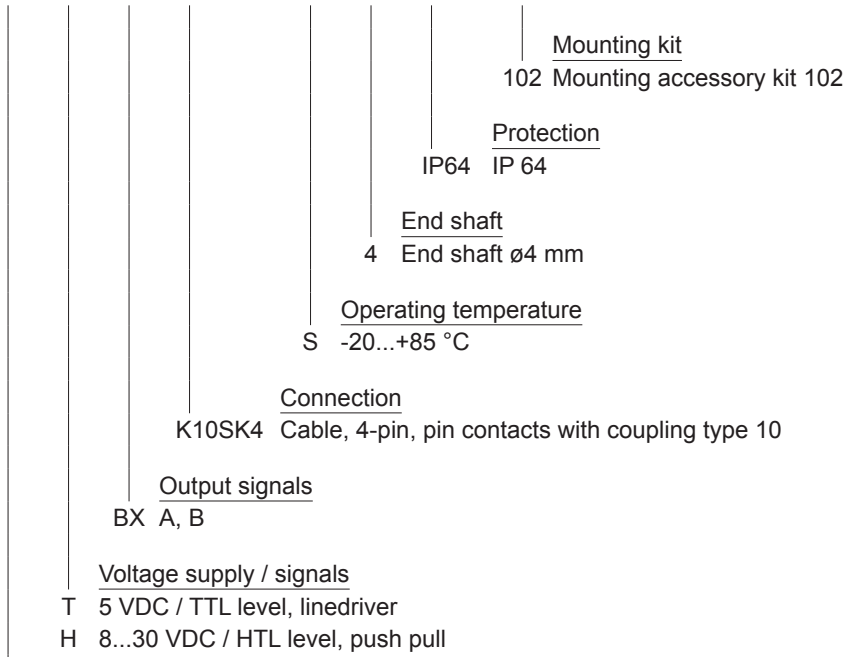
Resolution 30...1024 pulses

ITD 01 A 4 Y 4

Part number

ITD 01 A 4 Y 4

		BX	K10SK4	S	4	IP64	102
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See part number (pulses)

Part number (pulses)

30	100	360	600	1024
60	300	500	1000	

Incremental encoders

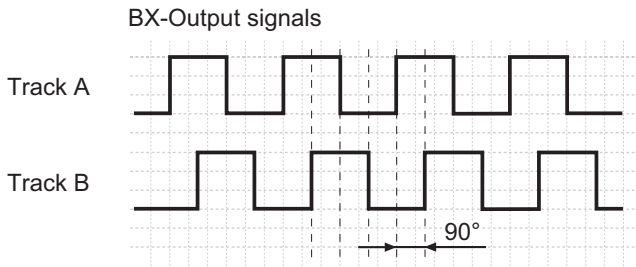
Mini encoder with end shaft $\varnothing 4$ mm

Resolution 30...1024 pulses

ITD 01 A 4 Y 4

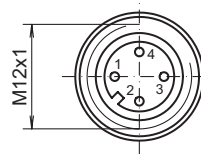
Output signals

Clockwise rotation when looking at the mounting side.



Terminal assignment

Connector	Assignment
Pin 1	UB
Pin 2	Track B
Pin 3	GND
Pin 4	Track A



Trigger level

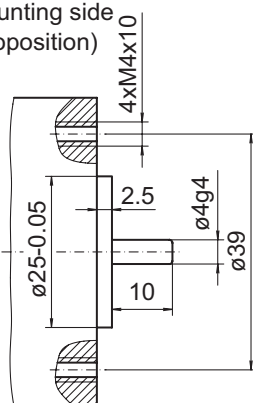
Outputs	Linedriver
Output level High	≥ 2.4 V
Output level Low	≤ 0.5 V
Load	≤ 30 mA

Outputs

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

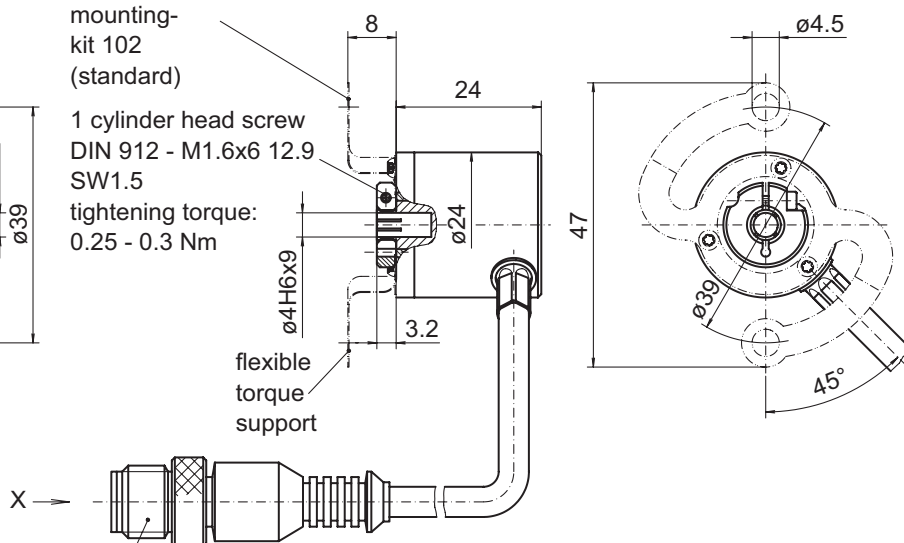
Dimensions

mounting side
(proposition)



mounting-
kit 102
(standard)

1 cylinder head screw
DIN 912 - M1.6x6 12.9
SW1.5
tightening torque:
0.25 - 0.3 Nm



coupling K10SK4 splashed
on cable ... m
(coupling type 10, pin contacts,
straight, 4-pin)

031- 1 Y 4

Incremental encoders
Mini encoder with end shaft $\varnothing 4$ mm
Resolution 30...1024 pulses

ITD 01 A 4 Y 4