

Incremental encoders

Through hollow shaft ø14 mm

128 pulses per revolution

ITD 23 A 4 Y 2



ITD 23 A 4 Y 2 with through hollow shaft

Features

- Size ø58 mm
- Precise optical sensing
- Output signal level TTL or HTL
- Through hollow shaft ø14 mm
- Connection tangential
- 128 pulses per revolution
- Operating temperature -20...+85 °C

Technical data - electrical ratings

Voltage supply	5 VDC ±5 % 8...26 VDC
Reverse polarity protection	Yes
Consumption w/o load	≤40 mA
Pulses per revolution	128
Sensing method	Optical
Output frequency	≤30 kHz
Output signals	A 90° B
Output stages	TTL 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)	60 x 72 mm
Shaft type	ø14 mm (through hollow shaft)
Motor shaft tolerance	0.25 mm axial 0.1 mm radial
Mounting kit	019 021
Protection DIN EN 60529	IP 54, IP 65
Operating speed	≤5000 rpm ≤3000 rpm IP 65 (>70 °C)
Starting torque	≤0.01 Nm (+20 °C)
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 100 g, 11 ms
Connection	Cable 0.5 m, connector M12, 4-polig, coupling K10SK4
Weight approx.	315 g

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Part number

ITD 23 A 4 Y 2	128		BX	K10SK4	S	14		
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Mounting kit

019 Mounting kit 019

021 Mounting kit 021

Protection

IP54 IP 54

IP65 IP 65

Through hollow shaft

14 ø14 mm

Operating temperature

S -20...+85 °C

Connection

K10SK4 Cable, 4-pin, pin contacts with coupling type 10

Output signals

BX A, B

Voltage supply / signals

T 5 VDC / TTL level, linedriver

H 8...26 VDC / HTL level, push-pull

Pulse number

128

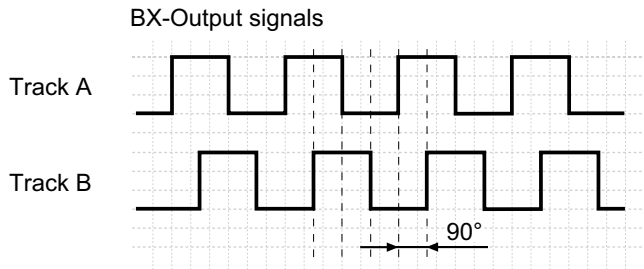
Incremental encoders

Through hollow shaft ø14 mm
128 pulses per revolution

ITD 23 A 4 Y 2

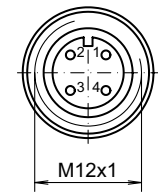
Output signals

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	$\geq 2.4 \text{ V}$
Output level Low	$\leq 0.5 \text{ V}$
Load	$\leq 40 \text{ mA}$

Outputs	Push-pull short-circuit proof
Output level High	$\geq \text{UB} - 3 \text{ V}$
Output level Low	$\leq 1.5 \text{ V}$
Load	$\leq 40 \text{ mA}$

Incremental encoders

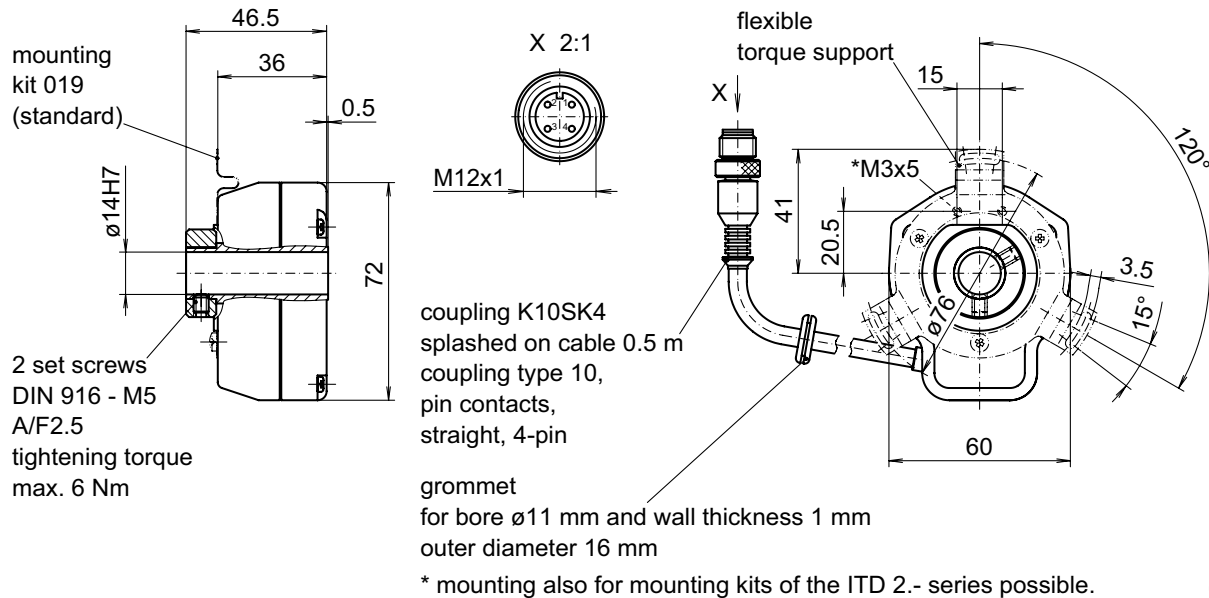
Through hollow shaft $\varnothing 14$ mm

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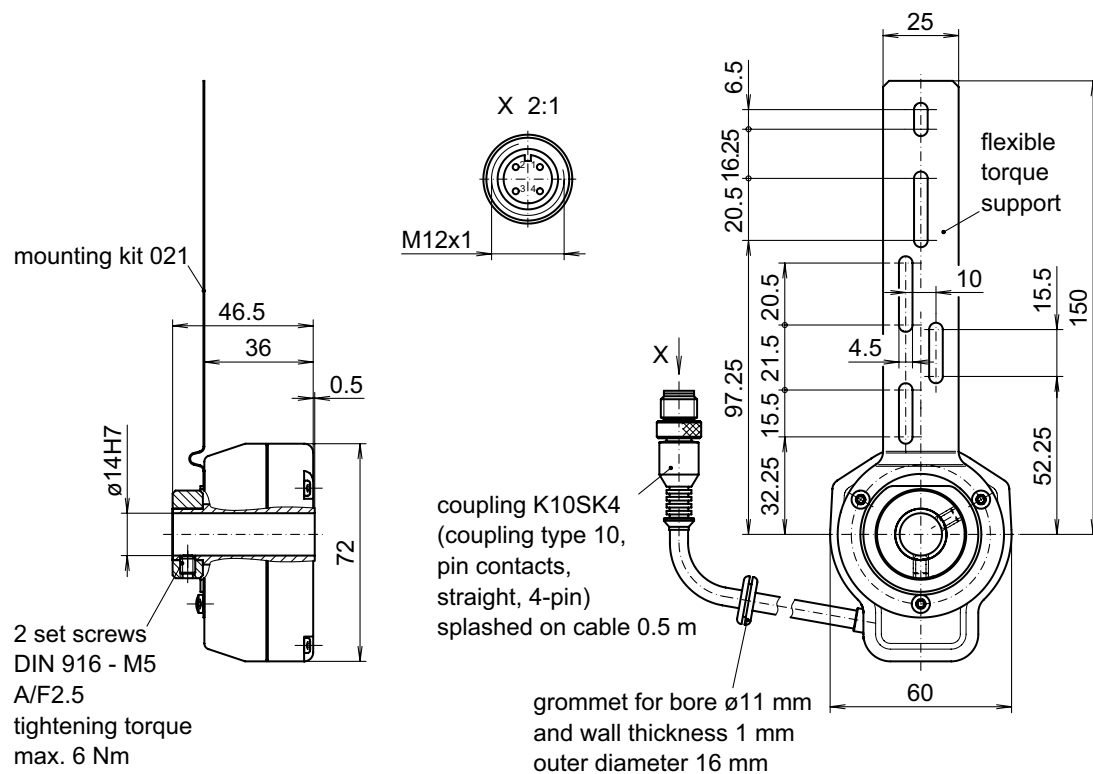
Dimensions

ITD 23 A 4 Y 2 with mounting kit 019



037- 6 Y 2

ITD 23 A 4 Y 2 with mounting kit 021



SK150033