

ITD61H00

Through hollow shaft $\varnothing 30$ to $\varnothing 50$ mm

1024...10000 pulses per revolution

Overview

- Robust encoder in size $\varnothing 120$ mm
- Precise optical sensing
- Universal voltage supply 4.75...30 VDC
- Output signal level TTL or HTL
- Through hollow shaft $\varnothing 30$...50 mm
- Pulses per revolution up to 10 000
- B-side clamping
- Stainless steel design (1.4305)



Technical data

Technical data - electrical ratings

Voltage supply	8...30 VDC 4.75...30 VDC
Reverse polarity protection	Yes
Consumption w/o load	≤ 100 mA
Pulses per revolution	1024 ... 10000
Reference signal	Zero pulse, width 90°
Sensing method	Optical
Output frequency	≤ 300 kHz (UB = 5 VDC, at 4.75...30 VDC) ≤ 160 kHz (UB > 5 VDC, at 4.75...30 VDC) ≤ 300 kHz (at 8...30 VDC)
Output signals	A, B, N + inverted
Output stages	Push-pull short-circuit proof
Interference immunity	EN 61000-6-2
Emitted interference	EN 61000-6-3
Approval	UL 508 / CSA 22.2

Technical data - mechanical design

Size (flange)	$\varnothing 120$ mm
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Technical data - mechanical design

Shaft type	$\varnothing 30$...50 mm (through hollow shaft)
Mounting kit	051 058
Protection EN 60529	IP 54
Operating speed	≤ 1700 rpm
Starting torque	≤ 0.12 Nm (+20 °C)
Material	Housing: stainless steel Shaft: stainless steel
Operating temperature	-20...+70 °C
Relative humidity	90 % non-condensing
Resistance	EN 60068-2-6 Vibration 10 g, 55-2000 Hz EN 60068-2-27 Shock 30 g, 11 ms
Connection	Cable 1 m Connector M23 type 2, 12-pin
Weight approx.	2000 g

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Terminal assignment

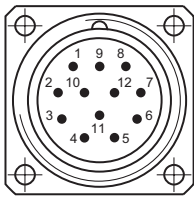
Cable

Core color	Assignment
green	Track A
brown	Track A inv.
grey	Track B
black	Track B inv.
pink	Track N
white	Track N inv.
red	UB
blue	GND
yellow	UB-Sense
violet	GND-Sense
transparent	Shield/Housing

Cable: PUR, [5x2x0,14 mm²], bending radius >70 mm, outer diameter 7 mm

Flange connector M23, 12-pin

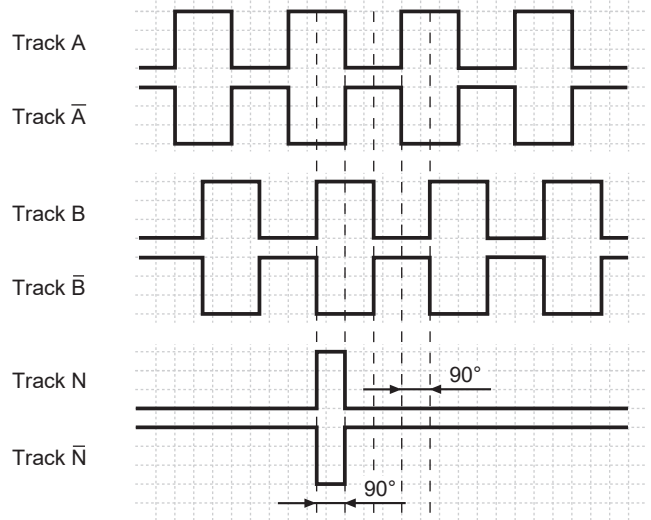
Connector	Assignment
Pin 5	Track A
Pin 6	Track A inv.
Pin 8	Track B
Pin 1	Track B inv.
Pin 3	Track N
Pin 4	Track N inv.
Pin 12	UB
Pin 10	GND
Pin 2	UB-Sense
Pin 11	GND-Sense
Pin 9	-
Pin 7	-



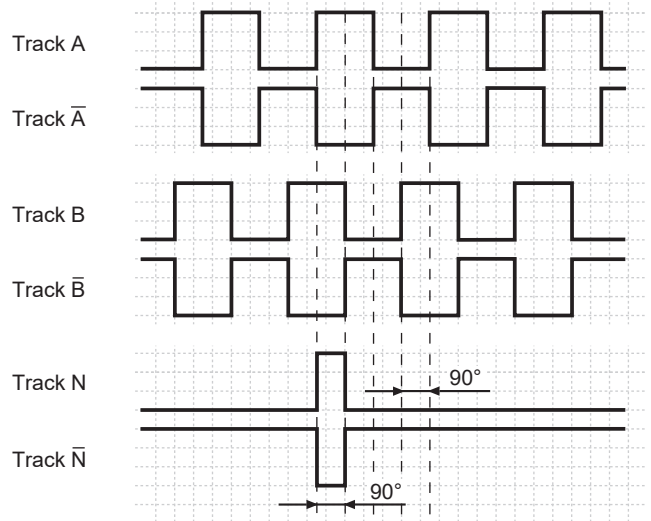
Output signals

Clockwise rotation when looking at the mounting side.

NI-Output signals



SI-Output signals



Trigger level

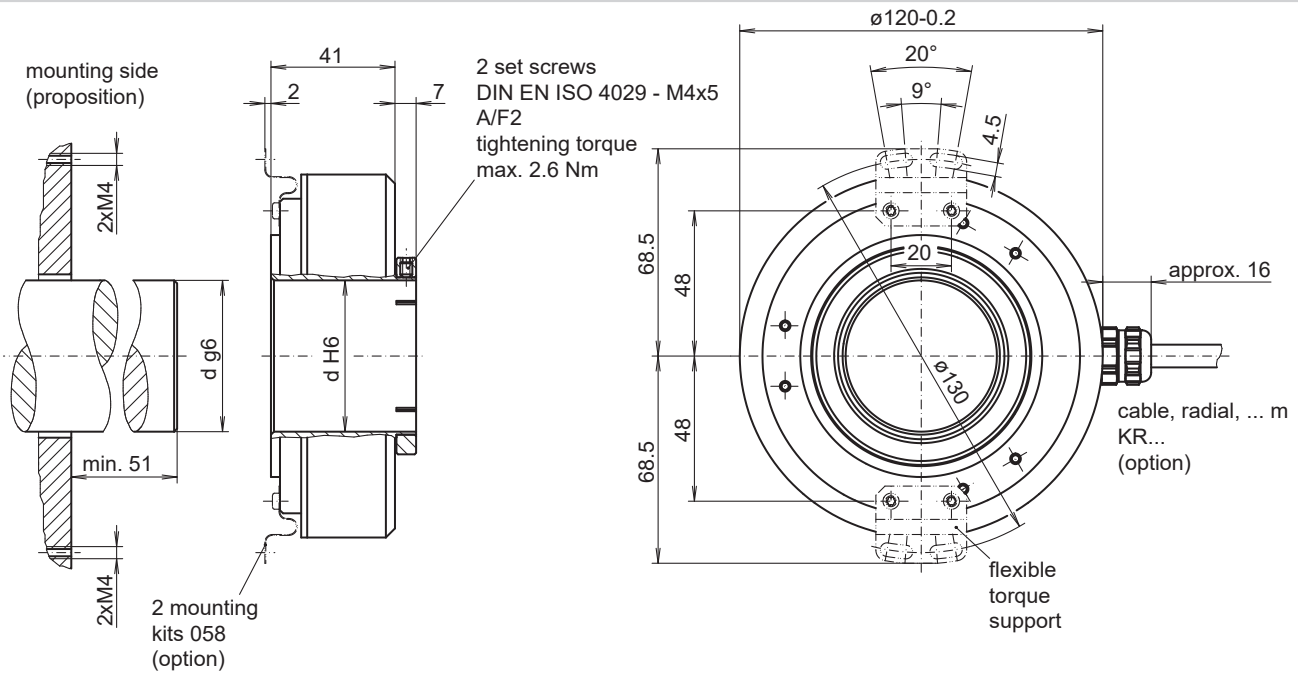
Outputs	4.75...30 VDC / $U_{OUT} = U_{IN}$
Output level High	$\geq UB - 3$ V
Output level Low	≤ 1 V
Load	≤ 30 mA
Outputs	8...30 VDC / $U_{OUT} = 5$ V
Output level High	≥ 2.4 V
Output level Low	≤ 0.5 V
Load	≤ 30 mA

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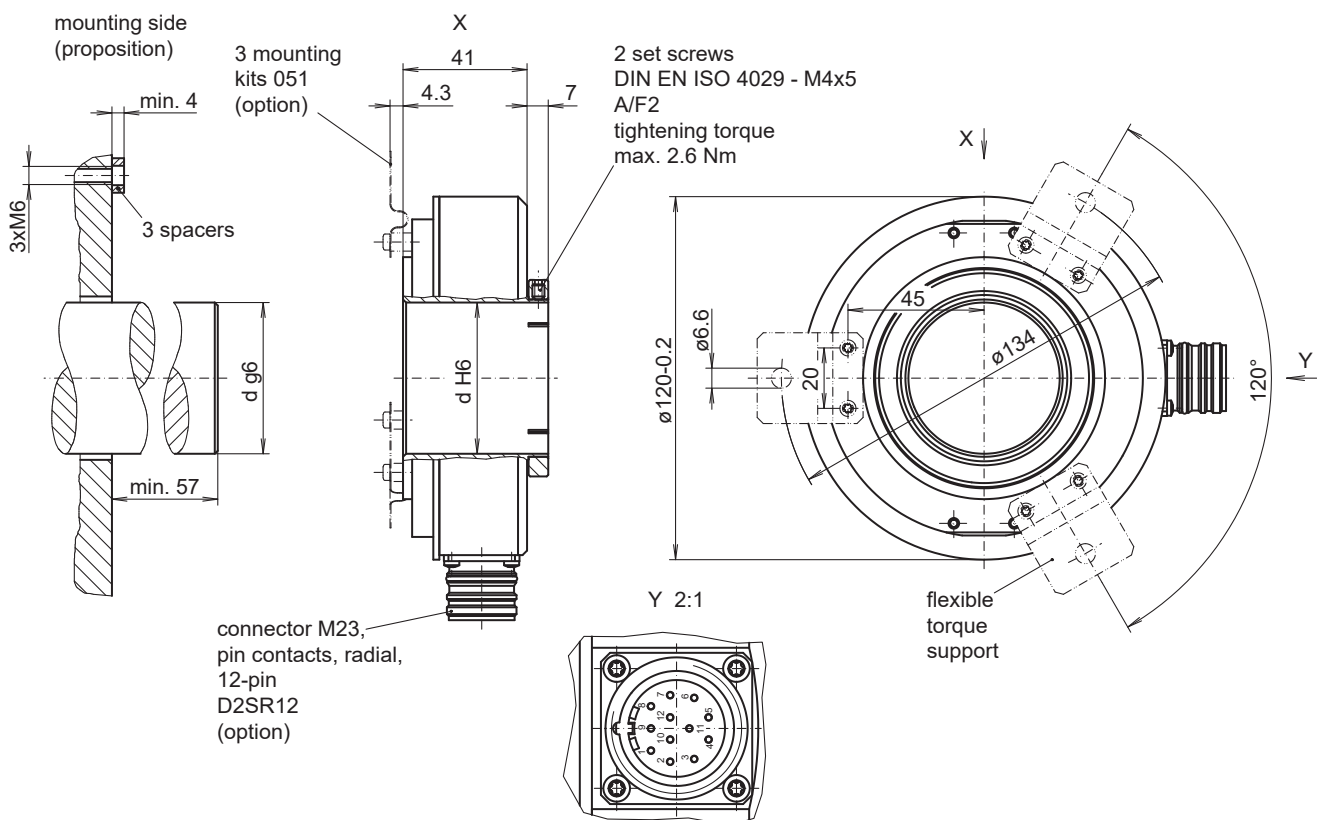
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Dimensions



Connection type and mounting kits can be combined as required.



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Ordering reference

	ITD61H00	#####	#	####	#####	S	##	IP54	##
Product	ITD61H00								
Pulse number									
1024		1024							
2048		2048							
2500		2500							
4096		4096							
10000		10000							
Voltage supply / signals									
8...30 VDC / Uout = 5 V						R			
4.75...30 VDC / Uout = Uin						V			
Output signals									
A, A inv, B, B inv, 0, 0 inv (signal sequence A leading B (CW))									NI
A, A inv, B, B inv, 0, 0 inv (signal sequence B leading A (CW))									SI
Connection									
Flange connector type 2, pin contacts, radial, 12-pin									D2SR12
Cable 1 m, radial									KR1
Operating temperature									
-20...+70 °C									S
Through hollow shaft									
$\varnothing 30$ mm									30
$\varnothing 35$ mm									35
$\varnothing 40$ mm									40
$\varnothing 45$ mm									45
$\varnothing 50$ mm									50
Protection									
IP 54									IP54
Mounting kit									
Mounting kit 051									051
Mounting kit 058									058

Other diameters on request.