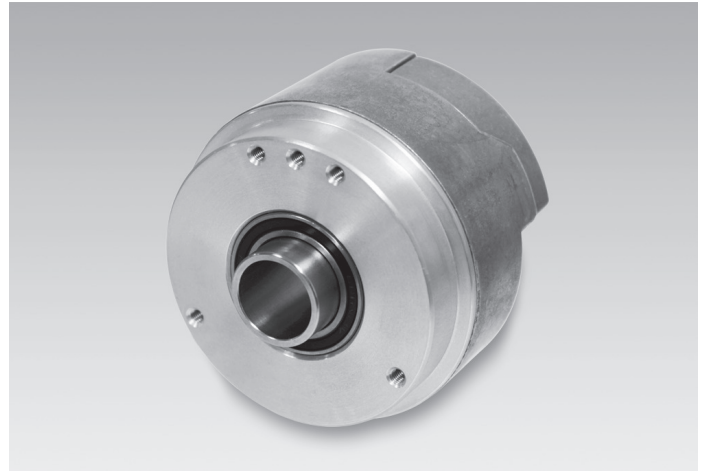


Overview

- Size $\varnothing 58$ mm
- Precise optical sensing
- Output signal level TTL or HTL
- Through hollow shaft, $\varnothing 14$ mm
- For cone clamping installation
- Max. 10000 pulses per revolution
- Operating temperature $-30...+100$ °C
- Detachable cable – tangential outlet



Technical data

Technical data - electrical ratings

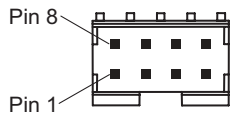
Voltage supply	5 VDC ± 5 % 8...30 VDC
Reverse polarity protection	Yes
Consumption w/o load	≤ 100 mA
Pulses per revolution	100 ... 10000
Reference signal	Zero pulse, width 90°
Sensing method	Optical
Output frequency	≤ 300 kHz (TTL) ≤ 160 kHz (HTL)
Output signals	A, B, N + inverted
Output stages	TTL linedriver (short-circuit proof) HTL 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)	$\varnothing 58$ mm
Shaft type	$\varnothing 14$ mm (through hollow shaft)
Protection DIN EN 60529	IP 65
Operating speed	≤ 6000 rpm
Starting torque	$\leq 0,015$ Nm ($+20$ °C)
Material	Housing: aluminium Shaft: stainless steel
Operating temperature	$-30...+100$ °C
Relative humidity	90 % non-condensing
Resistance	DIN EN 60068-2-6 Vibration 20 g, 60-2000 Hz DIN EN 60068-2-27 Shock 100 g, 6 ms
Connection	Board connector, 8-pin
Weight approx.	150 g

Terminal assignment

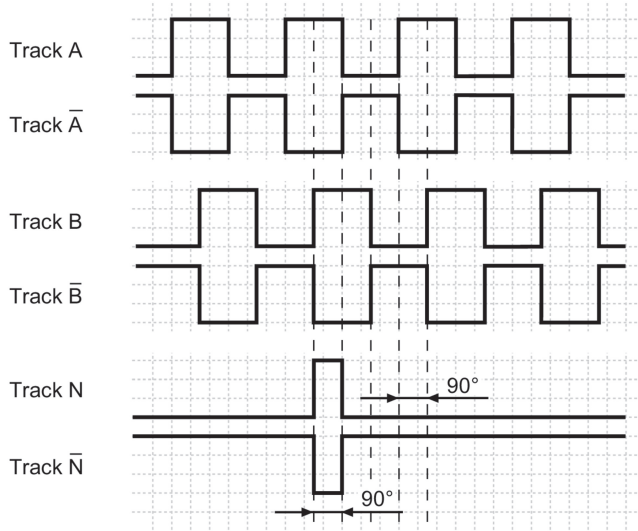
Connector	Assignment
Pin 1	UB
Pin 2	GND
Pin 3	Track A
Pin 4	Track A inv.
Pin 5	Track B
Pin 6	Track B inv.
Pin 7	Track N
Pin 8	Track N inv.



Output signals

Clockwise rotation when looking at the mounting side.

NI-Output signals



Trigger level

Outputs	Linedriver
Output level High	≥ 2.4 V
Output level Low	≤ 0.5 V
Load	≤ 70 mA

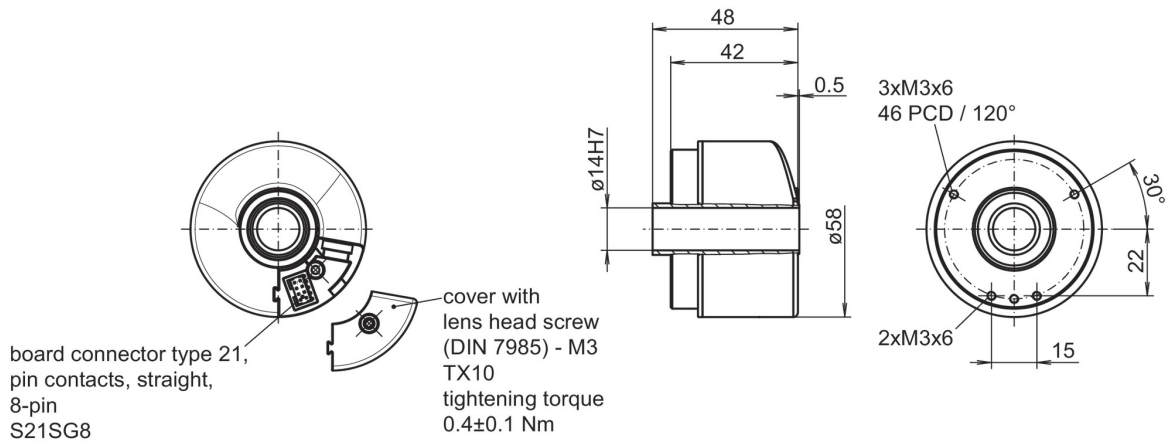
Outputs	Push-pull short-circuit proof
Output level High	$\geq U_B - 3$ V
Output level Low	≤ 1.5 V
Load	≤ 70 mA

ITD21H01

Through hollow shaft $\varnothing 14$ mm

100...10000 pulses per revolution

Dimensions



ITD21H01

 Through hollow shaft \varnothing 14 mm

100...10000 pulses per revolution

Ordering reference

	ITD21H01	####	###	NI	S21SG8	E	14	65	019
Product	ITD21H01								
Pulse number									
100		100							
120		120							
128		150							
200		200							
256		256							
300		300							
360		360							
400		400							
500		500							
512		512							
600		600							
720		720							
900		800							
900		900							
1000		1000							
1024		1024							
1200		1200							
1250		1250							
1250		1440							
1250		1500							
1800		1800							
2000		2000							
2048		2048							
2500		2500							
3000		3000							
3600		3600							
5000		4000							
4096		4096							
5000		5000							
6000		6000							
8192 ⁽¹⁾		8192							
10000 ⁽¹⁾		10000							
Voltage supply									
UB= 5 VDC \pm 5% / TTL level, linedriver									T
UB= 8...30 VDC / HTL level, push-pull									H
UB= 8...30 VDC / TTL level, linedriver									R
UB= 5 VDC \pm 5% / TTL level, RS422-linedriver, Attention: not short-circuit proof!									K
Output signal									
A, A inv, B, B inv, N, N inv									NI
Connection									
Board connector type 21, pin contacts, straight, 8-pin									S21SG8
Operating temperature									
-30...+100 °C									E
Through hollow shaft									
\varnothing 14 mm, for cone clamping installation (equipment)									14
Protection class									
IP65									65

ITD21H01Through hollow shaft $\varnothing 14$ mm
100...10000 pulses per revolution**Ordering reference**

ITD21H01 #### ### NI S21SG8 E 14 65 019

Mounting kit3-arm, pitch circle diameter 76 mm,
mounting 3 × M3 (120°)

019

(1) Pulse numbers are interpolated.

Accessories**Mounting accessories**

11073114	Torque arm, 3-armed, bolt circle $\varnothing 76$ mm, mounting M3 (mounting kit 019)
11073115	Cone spreader shaft $\varnothing 10$ mm
11073116	Cone spreader shaft $\varnothing 10$ mm V1
11073117	Cone spreader shaft $\varnothing 14$ mm

Connectors and cables

11072169	Connection cable with FCI, 8-pin / wire end sleeves (UL/CSA), 1 m
11079112	Connection cable with crimp contacts (UL/CSA), 0.2 m

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