

## ITD22H00

Through hollow shaft  $\varnothing 10$  to  $\varnothing 14$  mm  
1024, 2048 sinewave cycles per turn

### Overview

- Robust industry standard
- Wide operating temperature range
- Up to 2048 sinewaves cycles per turn
- Sine output signals 1 Vpp
- LowHarmonics® signal quality
- Detachable cable – tangential outlet
- Perfect control quality at all rotational speeds



Picture similar

### Technical data

#### Technical data - electrical ratings

Voltage supply	5 VDC $\pm 10$ % 8...30 VDC
Reverse polarity protection	Yes
Consumption w/o load	$\leq 100$ mA
Sinewave cycles per revolution	1024 ... 2048
Sensing method	Optical
Output frequency	$\leq 180$ kHz (-3 dB)
Output signals	A, B, 0
Output stages	SinCos 1 Vpp
Interference immunity	EN 61000-6-2
Emitted interference	EN 61000-6-3

#### Technical data - mechanical design

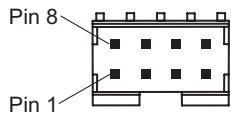
Size (flange)	$\varnothing 58$ mm
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#### Technical data - mechanical design

Shaft type	$\varnothing 10$ mm (through hollow shaft) $\varnothing 12$ mm (through hollow shaft) $\varnothing 14$ mm (through hollow shaft)
Protection EN 60529	IP 65
Operating speed	$\leq 6000$ 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	EN 60068-2-6 Vibration 20 g, 60-2000 Hz EN 60068-2-27 Shock 100 g, 6 ms
Connection	Board connector, 8-pin
Weight approx.	150 g

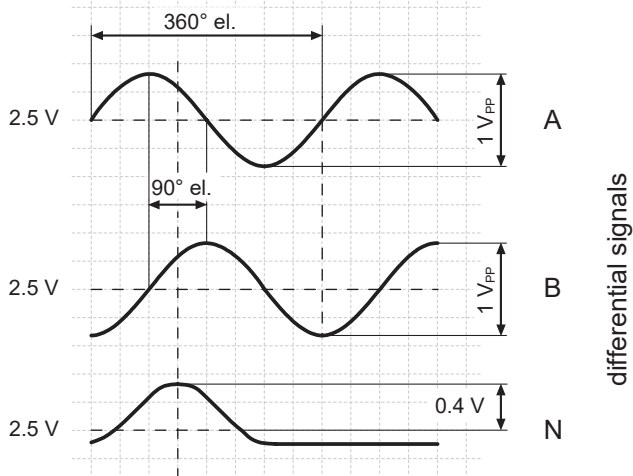
**Terminal assignment**

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



**Output signals**

Clockwise rotation when looking at the mounting side.



**Output signal level**

Outputs	Sine
Output amplitude A + B	1 V <sub>PP</sub> at Z <sub>0</sub> = 120 Ω
Output amplitude N	approx. 0,4 V (useable part) at Z <sub>0</sub> = 120 Ω



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## Ordering reference

	ITD22H00	#####	###	NI	S21SG8	E	##	65	021
<b>Product</b>	ITD22H00								
<b>Sinewave cycles/turn</b>									
1024		1024							
2048		2048							
<b>Voltage supply</b>									
UB= 5 VDC $\pm 10\%$ / sine 1 Vpp				M					
UB= 8...30 VDC / sine 1 Vpp				S					
<b>Output signal sine</b>									
A+, A-, B+, B-, N+, N-				NI					
<b>Connection</b>									
Board connector type 21, pin contacts, straight, 8-pin					S21SG8				
<b>Operating temperature</b>									
-30...+100 °C						E			
<b>Through hollow shaft</b>									
$\varnothing 10$ mm, clamping ring, A-side								10	
$\varnothing 12$ mm, clamping ring, A-side								12	
$\varnothing 14$ mm, clamping ring, A-side								14	
<b>Protection class</b>									
IP65									65
<b>Mounting kit</b>									
1-arm, pitch circle diameter 65.5...281 mm, mounting M4, cut to length									021

## Accessories

### Mounting accessories

11066080	Torque arm, 1-arm (mounting kit 002)
11066083	Torque arm, 1-arm (mounting kit 006)
11073114	Torque arm, 3-armed (mounting kit 019)
11073119	Torque arm, 1-arm (mounting kit 021)
11069239	Torque arm, 1-arm (mounting kit 092)
11116921	Insulating sleeve $\varnothing 10$ mm/ $\varnothing 12$ mm/25 mm long
11116923	Insulating sleeve $\varnothing 12$ mm/ $\varnothing 14$ mm/25 mm long