

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



Technical data

Technical data - electrical ratings

Voltage supply	5 VDC ± 10 % 8...30 VDC
Reverse polarity protection	Yes
Consumption w/o load	≤ 100 mA
Sinewave cycles per revolution	1024 ... 2048
Sensing method	Optical
Output frequency	≤ 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

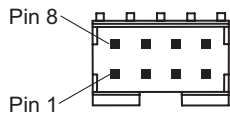
Shaft type	$\varnothing 10$ mm (through hollow shaft) $\varnothing 12$ mm (through hollow shaft) $\varnothing 14$ mm (through hollow shaft)
Protection EN 60529	IP 65
Operating speed	≤ 6000 rpm
Starting torque	≤ 0.015 Nm (+20 °C)
Material	Housing: aluminium Shaft: stainless steel
Operating temperature	-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

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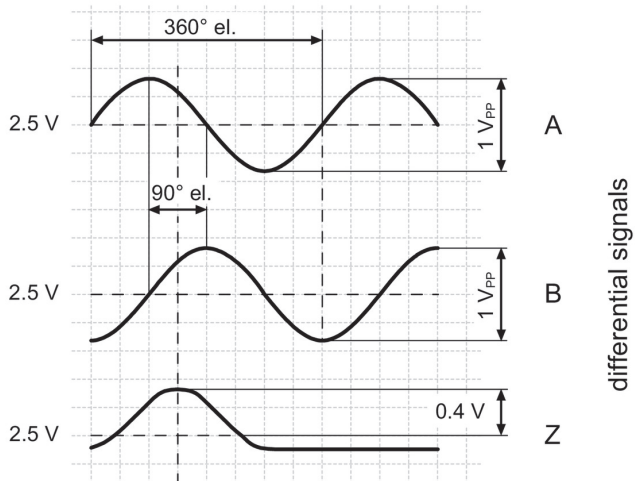
Terminal assignment

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.



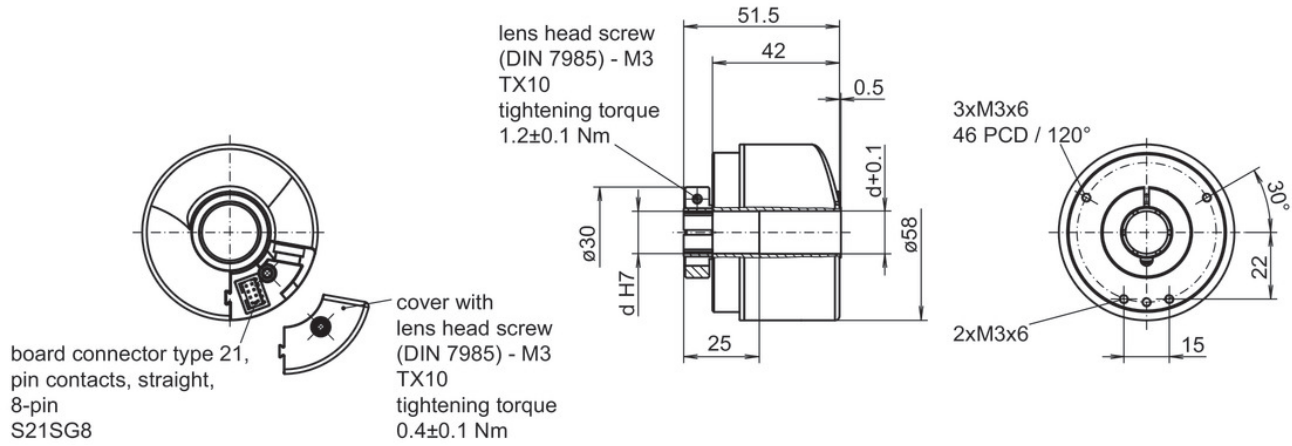
Output signal level

Outputs	Sine
Output amplitude A + B	1 V _{PP} at Z ₀ = 120 Ω
Output amplitude N	approx. 0,4 V (useable part) at Z ₀ = 120 Ω

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Dimensions



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Ordering reference

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

Accessories

Mounting accessories

11066080	Mounting kit 002
11066083	Mounting kit 006
11073114	Mounting kit 019
11073119	Mounting kit 021
11069239	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

Connectors and cables

11072169	Connection cable with FCI, 8-pin / wire end sleeves (UL/CSA), 1 m
11093848	Connection cable with FCI, 8-pin / wire end sleeves (UL/CSA), 2 m
11092928	Connection cable with FCI, 8-pin / wire end sleeves (UL/CSA), 3 m
11077007	Connection cable with FCI, 8-pin / wire end sleeves (UL/CSA), 5 m
11080879	Connection cable with FCI, 8-pin / wire end sleeves (UL/CSA), 10 m
11079089	Connection cable with rear mount socket M23, 12-pin, 1 m
11106562	Connection cable with FCI, 8-pin / D-SUB, 9-pin, 0.3 m
11079111	Connection cable with FCI, 8-pin / D-SUB, 9-pin, 1 m
11079113	Connection cable with coupling M12, 8-pin, 1 m
11079112	Connection cable with crimp contacts (UL/CSA), 0.2 m