

Sine encoders

Through hollow shaft $\varnothing 10$ to $\varnothing 14$ mm

1024, 2048 sinewave cycles per turn

ITD22H00 - HT High Temperature



ITD22H00 HT with through hollow shaft

Features

- Max. 2048 sinewaves cycles per turn
- Sine output signals 1 Vpp
- Wide operating temperature range
- Clamp fastening of the hollow shaft
- Mounting by torque support
- Compact design
- Flexible cable concept

Technical data - electrical ratings

Voltage supply	5 VDC ± 10 %
Reverse polarity protection	Yes
Consumption w/o load	≤ 100 mA
Sinewave cycles per turn	1024...2048
Sensing method	Optical
Output frequency	≤ 180 kHz (-3 dB)
Output signals	A, B, 0
Output stages	SinCos 1 Vpp
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	$\varnothing 10$ mm (through hollow shaft) $\varnothing 12$ mm (through hollow shaft) $\varnothing 14$ mm (through hollow shaft)
Motor shaft tolerance	0.25 mm axial 0.1 mm radial
Protection DIN EN 60529	IP 54
Operating speed	≤ 6000 rpm
Starting torque	≤ 0.015 Nm (+20 °C)
Materials	Housing: aluminium Shaft: stainless steel
Operating temperature	-30...+120 °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

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Part number

ITD22H00		M	NI	S21SG8	F		IP54
							Protection
							IP54 IP 54
							Through hollow shaft
						10	ø10 mm
						12	ø12 mm
						14	ø14 mm
							Operating temperature
					F		-30...+120 °C
							Connection
				S21SG8			Board connector type 21, pin contacts, straight, 8-pin
							Output signals
			NI				A+, A-, B+, B-, N+, N-
							Voltage supply / signals
		M					5 VDC / sine 1 Vpp
							Sinewave cycles - see table

Sinewave cycles

1024 | 2048

Accessories

Connectors and cables

11071187	Connection cable with wire end sleeves, 0.6 m
11071188	Connection cable with wire end sleeves, 1 m
11112263	Connection cable with wire end sleeves, 3 m
11071189	Connection cable with crimp contacts, 0.2 m

Mounting accessories

11066080	Torque arm, 1-arm, bolt circle ø76...80 mm, mounting M4 (mounting kit 002)
11066083	Torque arm, 1-arm, bolt circle ø74...94 mm, mounting M4/M5 (mounting kit 006)
11073114	Torque arm, 3-armed, bolt circle ø76 mm, mounting M3 (mounting kit 019)
11073119	Torque arm, 1-arm, bolt circle ø65.5...281 mm, mounting M4, can be cut to length (mounting kit 021)
11069239	Torque arm, 1-arm, bolt circle ø110...130 mm, mounting M5 (mounting kit 092)

Further connection cable lengths see accessories.

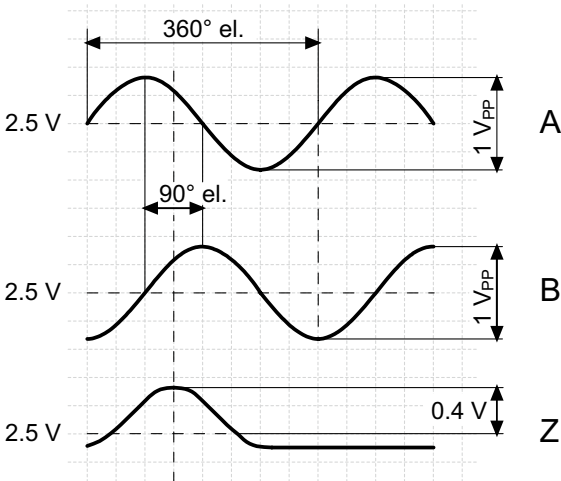
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Output signals

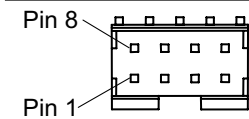
Clockwise rotation when looking at the mounting side.



differential signals

Terminal assignment

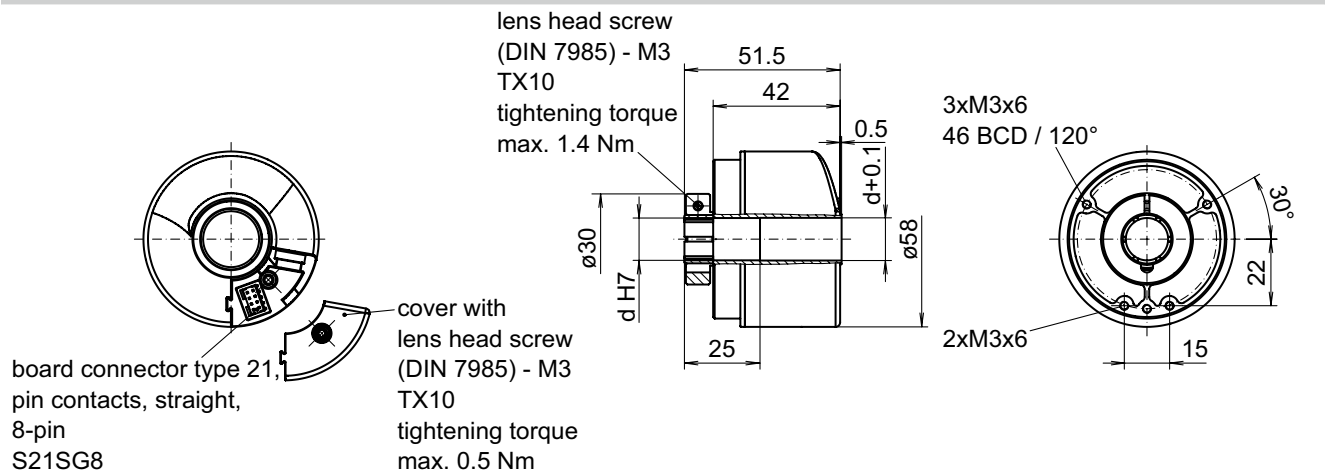
Connector	Assignment
Pin 1	UB
Pin 2	GND
Pin 3	Track A +
Pin 4	Track A -
Pin 5	Track B +
Pin 6	Track B -
Pin 7	Track N +
Pin 8	Track N -



Output 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

Dimensions



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