

# Sine encoders

Hollow shaft  $\varnothing 10$  to  $\varnothing 14$  mm

Resolution 1024, 2048 pulses

## ITD22H00



ITD22H00 with hollow shaft

### Features

- Robust industry standard
- Wide operating temperature range
- Resolution max. 2048 ppr
- Sine output signals 1 Vpp
- LowHarmonics® signal quality
- Detachable cable – tangential outlet
- Perfect control quality at all rotational speeds

### Technical data - electrical ratings

Voltage supply	5 VDC $\pm 10$ %
Reverse polarity protection	Yes
Consumption w/o load	$\leq 100$ mA
Resolution (steps/turn)	1024...2048
Sensing method	Optical
Output frequency	$\leq 180$ kHz (-3 dB)
Output signals	A, B, 0
Output circuit	Sine/cosine 1 Vpp

### Technical data - mechanical design

Dimensions (flange)	$\varnothing 58$ mm
Shaft	$\varnothing 10$ mm hollow shaft $\varnothing 12$ mm hollow shaft $\varnothing 14$ mm hollow shaft
Motor shaft tolerance	0.25 mm axial 0.1 mm radial
Protection DIN EN 60529	IP 65
Operating speed	$\leq 6000$ rpm
Starting torque	$\leq 0.015$ Nm
Materials	Housing: aluminium Shaft: stainless steel
Operating temperature	-30...+100 °C
Relative humidity	90 % non-condensing
Resistance	DIN EN 60068-2-6 Vibration 20 g, 55-2000 Hz DIN EN 60068-2-27 Shock 100 g, 6 ms
Connection	Board connector, 8-pin
Weight approx.	150 g

# Sine encoders

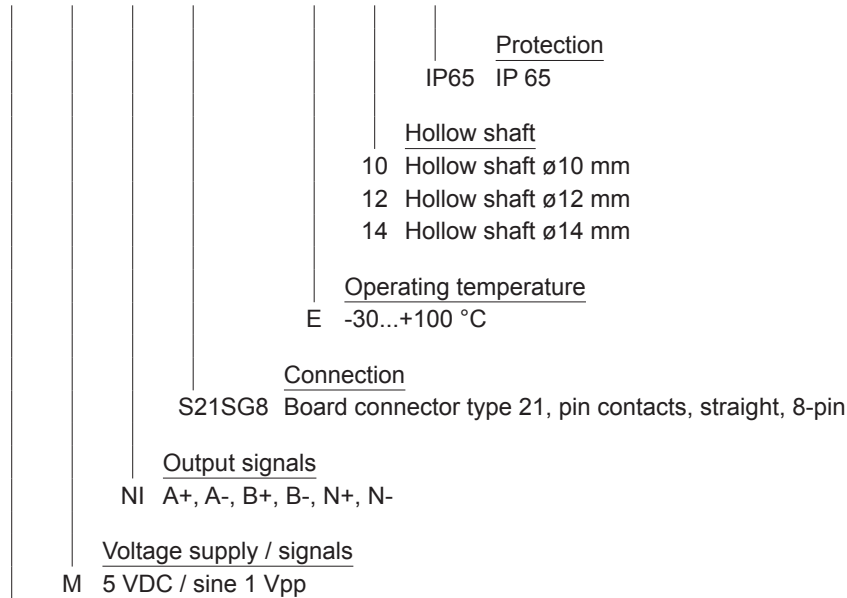
Hollow shaft  $\varnothing 10$  to  $\varnothing 14$  mm  
Resolution 1024, 2048 pulses

ITD22H00

## Part number

ITD22H00 

	M	NI	S21SG8	E		IP65
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See part number (pulses)

## Part number (pulses)

1024 | 2048

## Accessories

### Connectors and cables

11072169	Connection cable with wire end sleeves (UL/CSA) L = 1 m
11079089	Connection cable with rear mount socket M23, 12-poles L = 1 m
11079111	Connection cable with D-SUB connector, 9-poles L = 1 m
11079113	Connection cable with coupling M12, 8-poles L = 1 m
11079112	Connection cable with crimp contacts (UL/CSA) L = 0.2 m

### Mounting accessories

11066080	Mounting kit 002
11066083	Mounting kit 006
11073114	Mounting kit 019
11073119	Mounting kit 021
11069239	Mounting kit 092

Further connection cable lengths see accessories.

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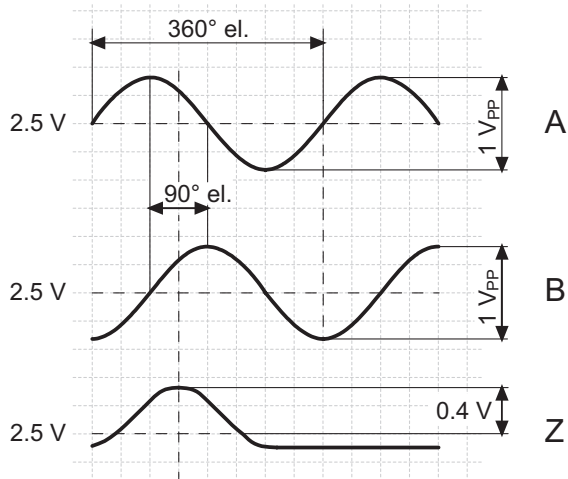
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### Output signals

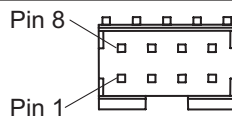
Clockwise rotation when looking at the mounting side.



differential signals

### Terminal assignment

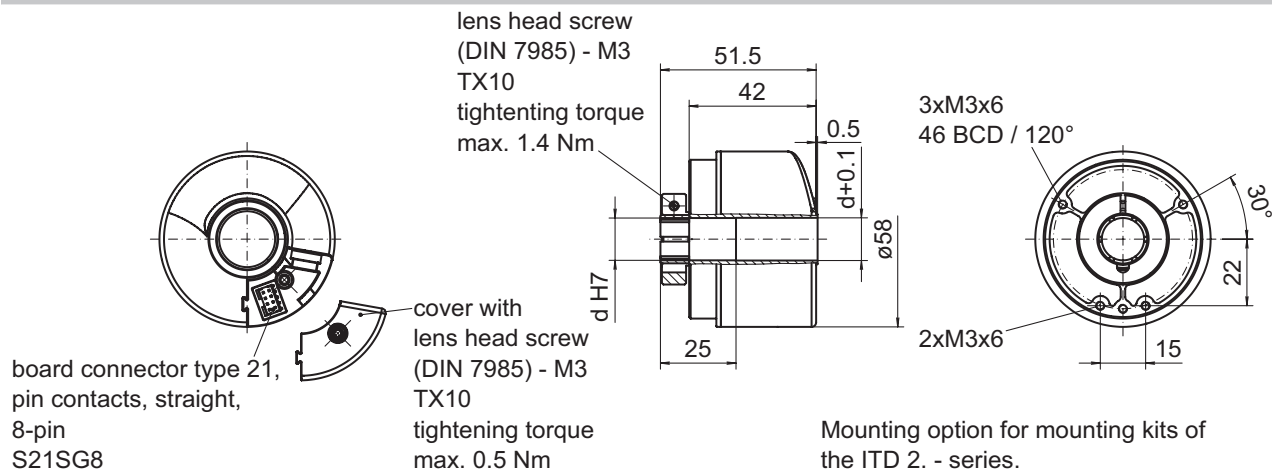
Connector	Assignment
Pin 3	Track A +
Pin 4	Track A -
Pin 5	Track B +
Pin 6	Track B -
Pin 7	Track N +
Pin 8	Track N -
Pin 1	UB
Pin 2	GND



### Trigger 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

### Dimensions



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