

# Sine encoders

Through hollow shaft  $\varnothing 20$  to  $\varnothing 27$  mm

1024, 2048 sinewave cycles per turn

## ITD 42 A 4 Y79



ITD 42 A 4 Y79 with through hollow shaft

### Technical data - electrical ratings

Voltage supply	5 VDC $\pm 10$ % 8...30 VDC
Reverse polarity protection	Yes
Consumption w/o load	$\leq 90$ mA
Sinewave cycles per turn	1024...2048
Sensing method	Optical
Output frequency	$\leq 180$ kHz (-3 dB)
Output signals	A, B, 0
Output stages	SinCos 1 Vpp

### Features

- Encoder with through hollow shaft  $\varnothing 20$ ... $\varnothing 27$  mm
- Max. 2048 sinewaves cycles per turn
- Sine output signals 1 Vpp
- Mounting by torque support
- Cable output radial

### Optional

- Cable with connector

### Technical data - mechanical design

Size (flange)	$\varnothing 80$ mm
Shaft type	$\varnothing 20$ mm (through hollow shaft) $\varnothing 22$ mm (through hollow shaft) $\varnothing 25$ mm (through hollow shaft) $\varnothing 27$ mm (through hollow shaft)
Motor shaft tolerance	0.25 mm axial 0.1 mm radial
Mounting kit	050
Protection DIN EN 60529	IP 65
Operating speed	$\leq 5000$ rpm
Starting torque	$\leq 0.015$ Nm (+20 °C)
Materials	Housing: aluminium, black, powder-coated Shaft: stainless steel
Operating temperature	-20...+85 °C
Relative humidity	90 % non-condensing
Resistance	DIN EN 60068-2-6 Vibration 10 g, 55-2000 Hz DIN EN 60068-2-27 Shock 30 g, 11 ms
Connection	Cable 1 m
Weight approx.	600 g

# Sine encoders

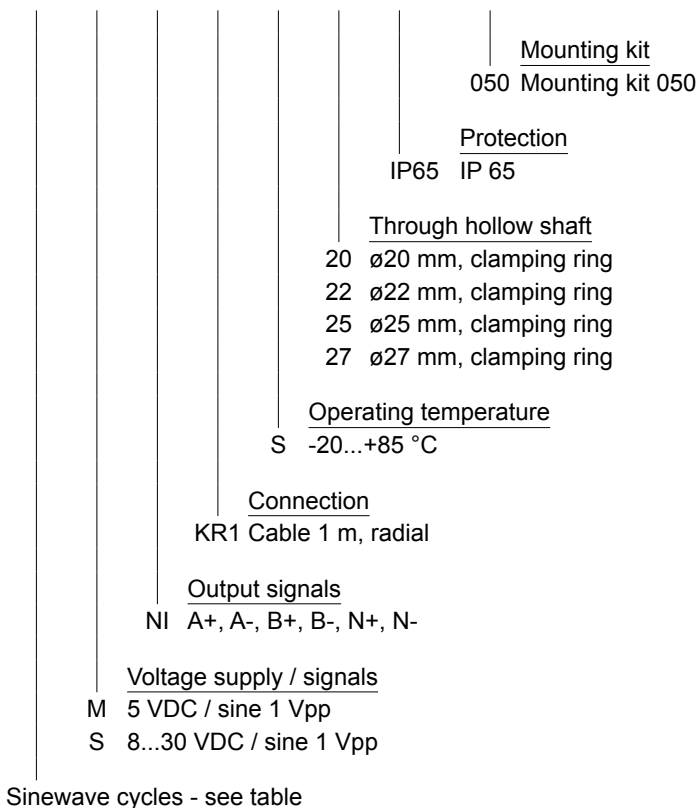
Through hollow shaft  $\varnothing 20$  to  $\varnothing 27$  mm  
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## Part number

ITD 42 A 4 Y79 

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## Sinewave cycles

1024 | 2048

# Sine encoders

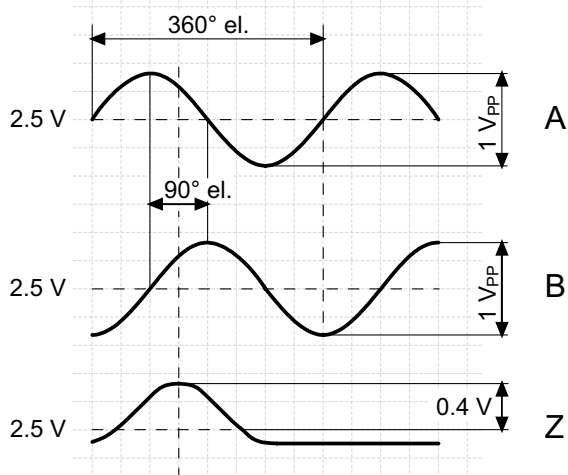
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## Output signals

Clockwise rotation when looking at the mounting side.



differential signals

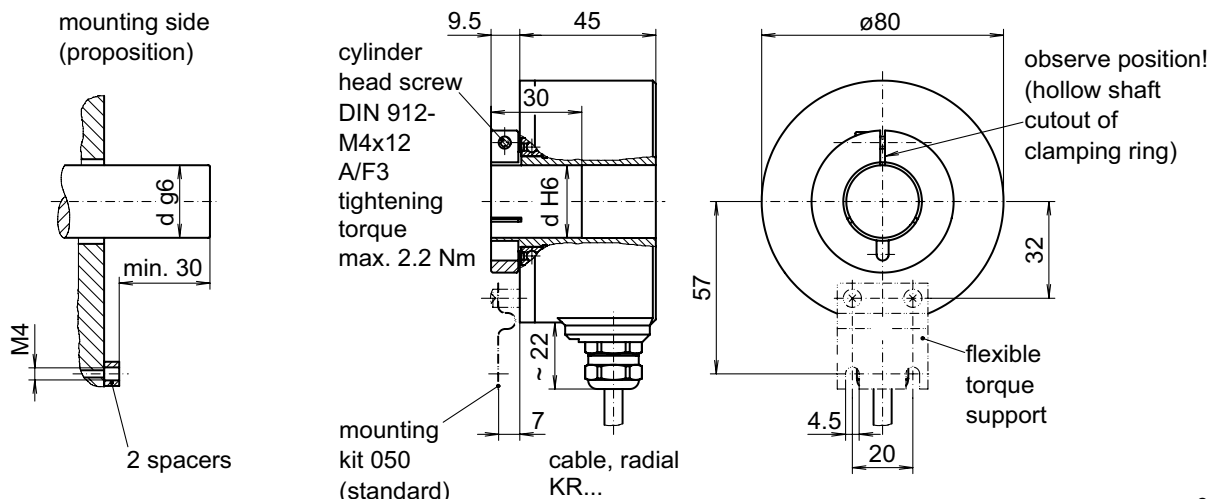
## Terminal assignment

Core colour	Assignment
green	Track A +
brown	Track A -
grey	Track B +
black	Track B -
pink	Track N +
white	Track N -
red	UB
blue	GND
yellow	UB-Sense
violet	GND-Sense
transparent	Shield/Housing

## 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

## Dimensions



026- 5 Y79

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