

## ITD 42 A 4 Y79

Through hollow shaft  $\varnothing 20$  to  $\varnothing 27$  mm  
1024, 2048 sinewave cycles per turn

### Overview

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



### Technical data

#### 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 revolution	1024 ... 2048
Sensing method	Optical
Output frequency	$\leq 180$ kHz (-3 dB)
Output signals	A, B, 0
Output stages	SinCos 1 Vpp

#### 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)

#### Technical data - mechanical design

Mounting kit	050
Protection EN 60529	IP 65
Operating speed	$\leq 5000$ rpm
Starting torque	$\leq 0.025$ Nm (+20 °C)
Material	Housing: aluminium, black, powder-coated Shaft: stainless steel
Operating temperature	-20...+85 °C
Relative humidity	90 % non-condensing
Resistance	EN 60068-2-6 Vibration 10 g, 55-2000 Hz EN 60068-2-27 Shock 30 g, 11 ms
Connection	Cable 1 m
Weight approx.	600 g

### Optional

- Cable with connector

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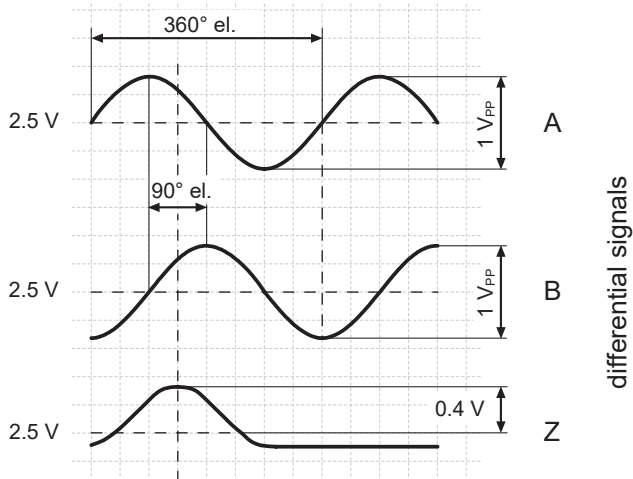
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## Terminal assignment

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 signals

Clockwise rotation when looking at the mounting side.



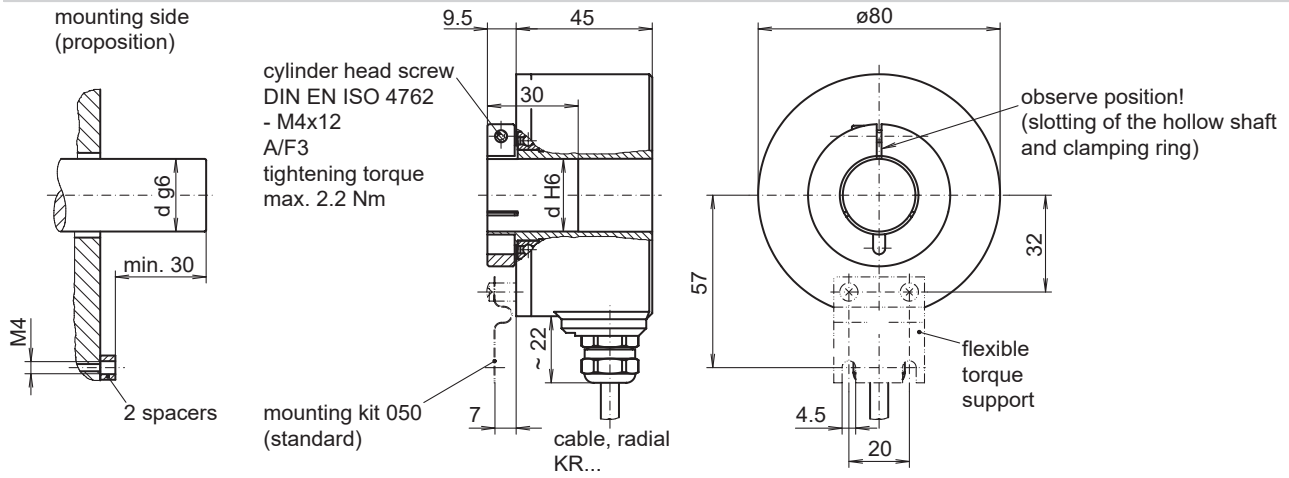
## Output signal level

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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## Dimensions



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**Ordering reference**

	<b>ITD 42 A 4 Y79</b>	<b>####</b>	<b>#</b>	<b>NI</b>	<b>KR1</b>	<b>S</b>	<b>##</b>	<b>IP65</b>	<b>050</b>
<b>Product</b>	ITD 42 A 4 Y79								
<b>Sinewave cycles</b>									
1024		1024							
2048		2048							
<b>Voltage supply / signals</b>									
5 VDC / sine 1 Vpp				M					
8...30 VDC / sine 1 Vpp				S					
<b>Output signals</b>									
A, A inv, B, B inv, N, N inv				NI					
<b>Connection</b>									
Cable 1 m, radial					KR1				
<b>Operating temperature</b>									
-20...+85 °C						S			
<b>Through hollow shaft</b>									
$\varnothing 20$ mm								20	
$\varnothing 22$ mm								22	
$\varnothing 25$ mm								25	
$\varnothing 27$ mm								27	
<b>Protection</b>									
IP 65								IP65	
<b>Mounting kit</b>									
Mounting kit 050									050