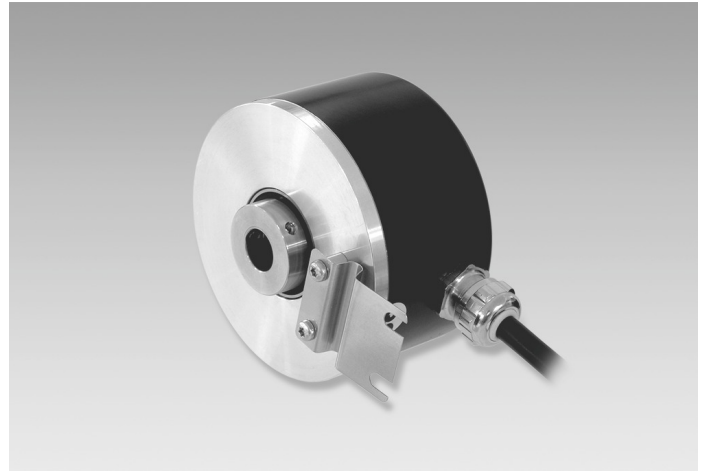


ITD 42 A 4

Blind hollow shaft $\varnothing 10$ to $\varnothing 16$ mm
1024, 2048 sinewave cycles per turn

Overview

- Encoder with blind hollow shaft $\varnothing 10 \dots 16$ 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 ± 10 % 8...30 VDC
Reverse polarity protection	Yes
Consumption w/o load	≤ 90 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

Technical data - mechanical design

Size (flange)	$\varnothing 80$ mm
Shaft type	$\varnothing 10 \dots 16$ mm (blind hollow shaft)
Mounting kit	050

Technical data - mechanical design

Protection EN 60529	IP 65
Operating speed	≤ 8000 rpm
Starting torque	≤ 0.01 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.	550 g

Optional

- Cable with connector

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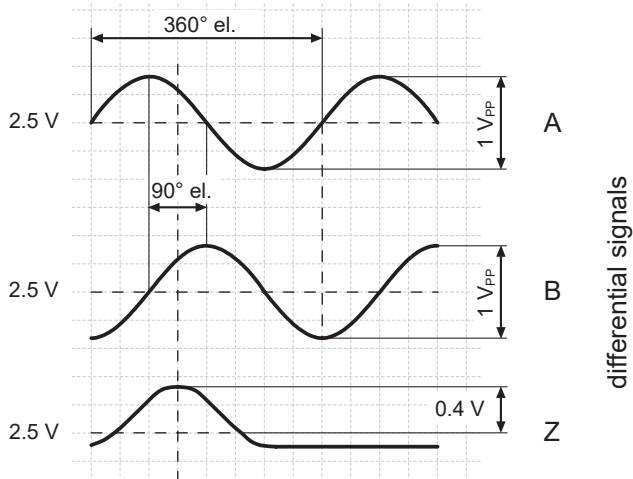
Blind hollow shaft $\varnothing 10$ to $\varnothing 16$ mm
1024, 2048 sinewave cycles per turn

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

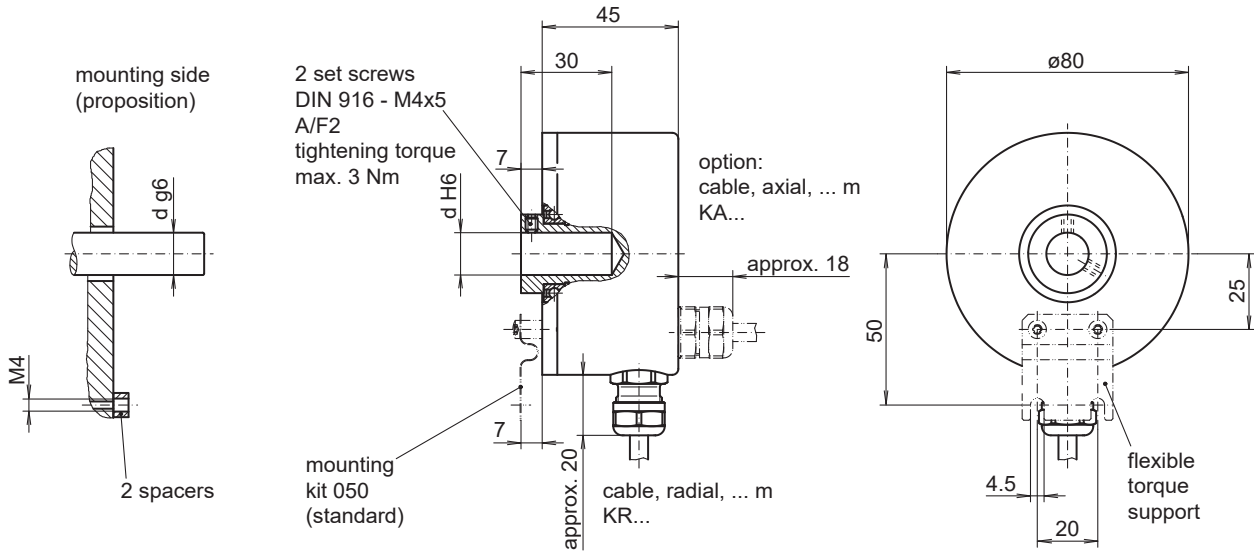
Outputs	Sine
Output amplitude A + B	1 V _{PP} at Z ₀ = 120 Ω
Output amplitude N	approx. 0,4 V (useable part) at Z ₀ = 120 Ω

ITD 42 A 4

Blind hollow shaft $\varnothing 10$ to $\varnothing 16$ mm

1024, 2048 sinewave cycles per turn

Dimensions



026- 5

ITD 42 A 4

 Blind hollow shaft $\varnothing 10$ to $\varnothing 16$ mm

1024, 2048 sinewave cycles per turn

Ordering reference		ITD 42 A 4	####	#	NI	#####	S	##	IP65	050
Product		ITD 42 A 4								
		ITD 42 A 4								
Sinewave cycles										
	1024		1024							
	2048		2048							
Voltage supply / signals										
	5 VDC / sine 1 Vpp			M						
	8...30 VDC / sine 1 Vpp			S						
Output signals										
	A, A inv, B, B inv, N, N inv				NI					
Connection										
	Cable 1 m, radial					KR1				
	Cable 1 m, axial					KA1				
Operating temperature										
	-20...+85 °C						S			
Blind hollow shaft										
	$\varnothing 10$ mm							10		
	$\varnothing 11$ mm							11		
	$\varnothing 12$ mm							12		
	$\varnothing 12.7$ mm							12.7		
	$\varnothing 14$ mm							14		
	$\varnothing 15$ mm							15		
	$\varnothing 16$ mm							16		
Protection										
	IP 65								IP65	
Mounting kit										
	Mounting kit 050									050