

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

Features

- Encoder with through hollow shaft $\varnothing 20...27$ 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 - electrical ratings

Voltage supply	5 VDC ± 10 % 8...30 VDC
Reverse polarity protection	Yes
Consumption w/o load	≤ 90 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

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	≤ 5000 rpm
Starting torque	≤ 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
1024, 2048 sinewave cycles per turn

ITD 42 A 4 Y79

Part number

ITD 42 A 4 Y79

		NI	KR1	S		IP65	050
--	--	----	-----	---	--	------	-----

Mounting kit
050 Mounting kit 050

Protection
IP65 IP 65

Through hollow shaft
20 $\varnothing 20$ mm, clamping ring
22 $\varnothing 22$ mm, clamping ring
25 $\varnothing 25$ mm, clamping ring
27 $\varnothing 27$ mm, clamping ring

Operating temperature
S -20...+85 °C

Connection
KR1 Cable 1 m, radial

Output signals
NI A+, A-, B+, B-, N+, N-

Voltage supply / signals
M 5 VDC / sine 1 Vpp
S 8...30 VDC / sine 1 Vpp

Sinewave cycles - see table

Sinewave cycles

1024 | 2048

Sine encoders

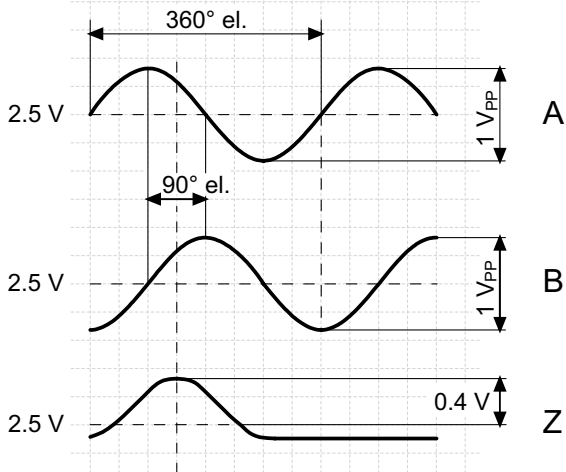
Through hollow shaft $\varnothing 20$ to $\varnothing 27$ mm

1024, 2048 sinewave cycles per turn

ITD 42 A 4 Y79

Output signals

Clockwise rotation when looking at the mounting side.



differential signals

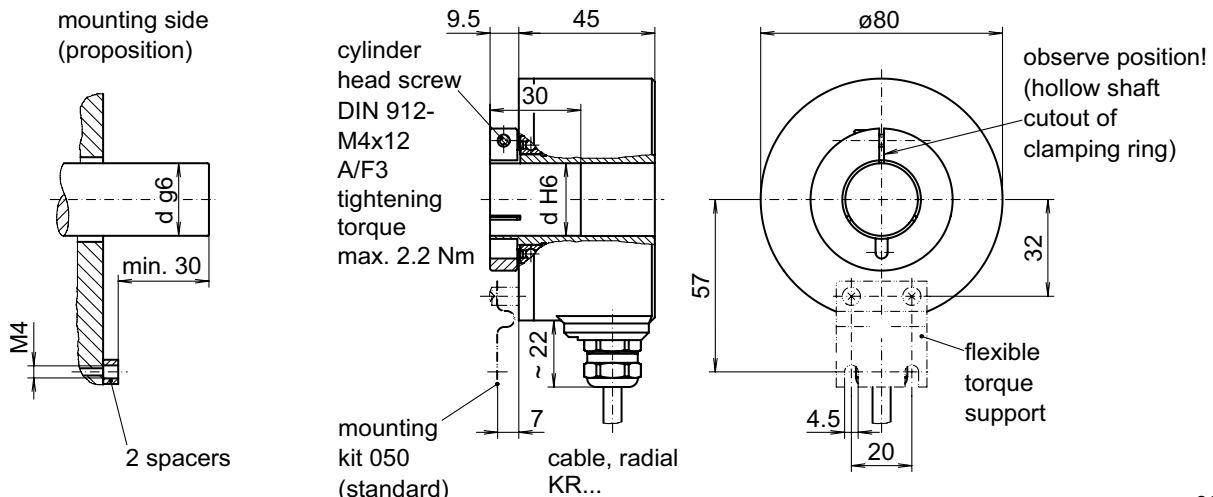
Terminal assignment

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 _{PP} at Z ₀ = 120 Ω
Output amplitude N	approx. 0,4 V (useable part) at Z ₀ = 120 Ω

Dimensions



026- 5 Y79

Sine encoders

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

ITD 42 A 4 Y79
