

Incremental encoders

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

2000...10000 pulses per revolution

ITD 41 A 4 Y141



ITD 41 A 4 Y141 with blind hollow shaft

Features

- Encoder with blind hollow shaft $\varnothing 20...27$ mm
- Max. 10000 pulses per revolution
- Optical sensing method
- Stainless steel design (1.4305)
- Mounting by torque support
- TTL or HTL output signals
- Cable output radial
- High protection

Optional

- Cable with connector

Technical data - electrical ratings

Voltage supply	5 VDC $\pm 5\%$ 8...30 VDC
Reverse polarity protection	Yes
Consumption w/o load	≤ 100 mA
Pulses per revolution	2000...10000
Reference signal	Zero pulse, width 90°
Sensing method	Optical
Output frequency	≤ 300 kHz (TTL) ≤ 160 kHz (HTL)
Output signals	A, B, N + inverted
Output stages	TTL linedriver (short-circuit proof) HTL push-pull (short-circuit proof)
Interference immunity	DIN EN 61000-6-2
Emitted interference	DIN EN 61000-6-3

Technical data - mechanical design

Size (flange)	$\varnothing 89$ mm
Shaft type	$\varnothing 20...27$ mm (blind hollow shaft)
Mounting kit	081
Protection DIN EN 60529	IP 66
Operating speed	≤ 2500 rpm
Starting torque	≤ 0.02 Nm ($+20^\circ\text{C}$)
Materials	Housing: stainless steel Shaft: stainless steel
Operating temperature	$-20...+70^\circ\text{C}$
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.	1850 g

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Part number

ITD 41 A 4 Y141			NI	KR1	S	25	IP66	081	
									Mounting kit
								081	Mounting kit 081
									Protection
							IP66	IP 66	
									Blind hollow shaft
						25	ø25 mm		
									Operating temperature
					S	-20...+70 °C			
									Connection
									KR1 Cable 1 m, radial
									Output signals
					NI	A, A inv, B, B inv, 0, 0 inv			
									Voltage supply / signals
					T	5 VDC / TTL level, linedriver			
					H	8...30 VDC / HTL level, push-pull			
					R	8...30 VDC / TTL level, linedriver			
									Pulse number - see table

Pulse number

2000	2500	3600	5000
2048	3072	4096	10000

Other diameters on request.

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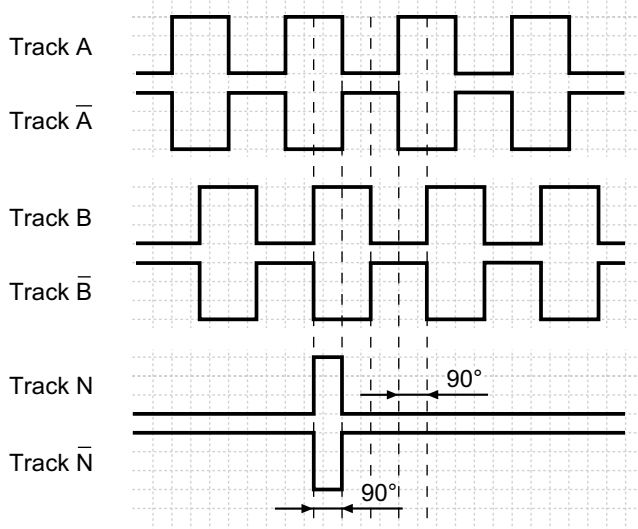
2000...10000 pulses per revolution

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Output signals

Clockwise rotation when looking at the mounting side.

NI-Output signals



Terminal assignment

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

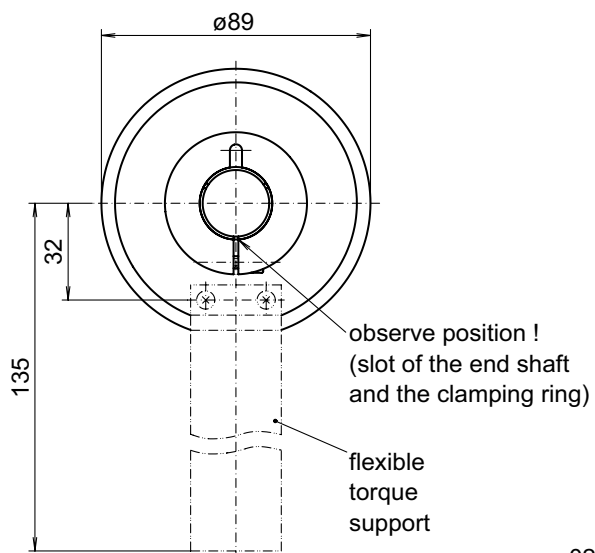
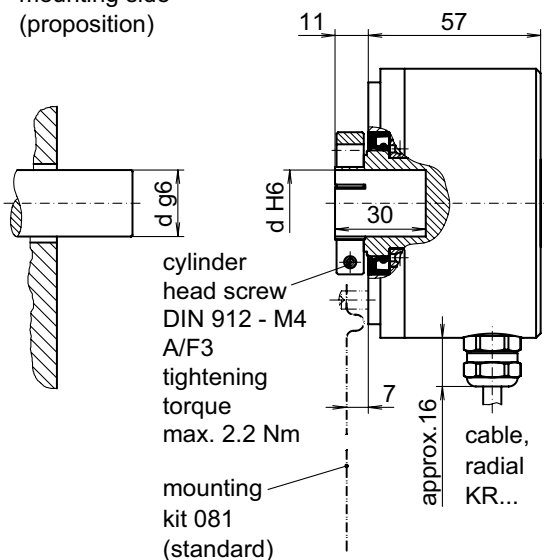
Trigger level

Outputs	Linedriver
Output level High	≥ 2.4 V
Output level Low	≤ 0.5 V
Load	≤ 70 mA

Outputs	Push-pull short-circuit proof
Output level High	$\geq UB - 3$ V
Output level Low	≤ 1.5 V
Load	≤ 70 mA

Dimensions

mounting side
(proposition)



026- 5 Y141

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