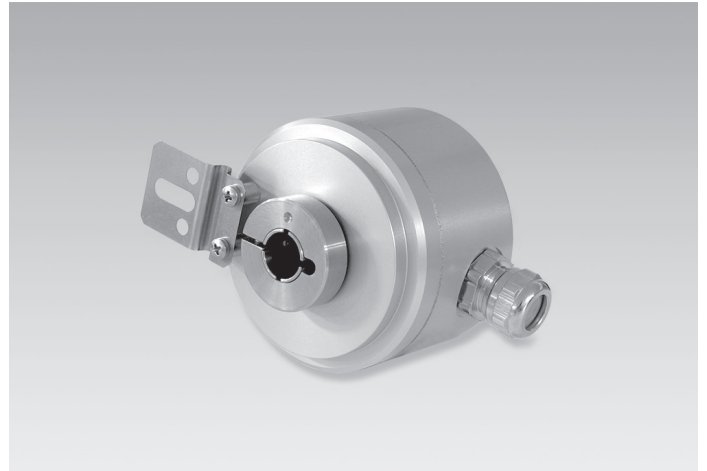


ITD 21 A 4 Y109

Blind hollow shaft $\varnothing 10$ to $\varnothing 14$ mm
200...6000 pulses per revolution

Overview

- Encoder with blind hollow shaft $\varnothing 10$...14 mm
- Max. 6000 pulses per revolution
- Optical sensing method
- Anodised version
- Mounting by torque support
- TTL or HTL output signals
- Cable output radial
- High protection



Technical data

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	200 ... 6000
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)	$\varnothing 68$ mm
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Optional

- Cable with connector

Technical data - mechanical design

Shaft type	$\varnothing 10$ mm (blind hollow shaft) $\varnothing 12$ mm (blind hollow shaft) $\varnothing 14$ mm (blind hollow shaft)
Mounting kit	038
Protection DIN EN 60529	IP 66
Operating speed	≤ 5000 rpm
Starting torque	$\leq 0,03$ Nm (+20 °C)
Material	Housing: aluminium, anodised Shaft: stainless steel
Operating temperature	-20...+70 °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.	410 g

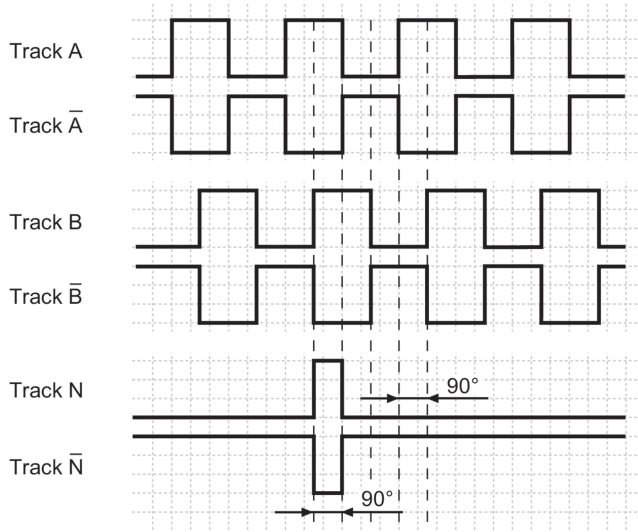
Terminal assignment

Core colour	Assignment
brown	Track A
green	Track A inv.
grey	Track B
pink	Track B inv.
red	Track N
black	Track N inv.
brown 0,5 mm ²	UB
white 0,5 mm ²	GND
blue	UB-Sense
white	GND-Sense
transparent	Shield/Housing

Output signals

Clockwise rotation when looking at the mounting side.

NI-Output signals



Trigger level

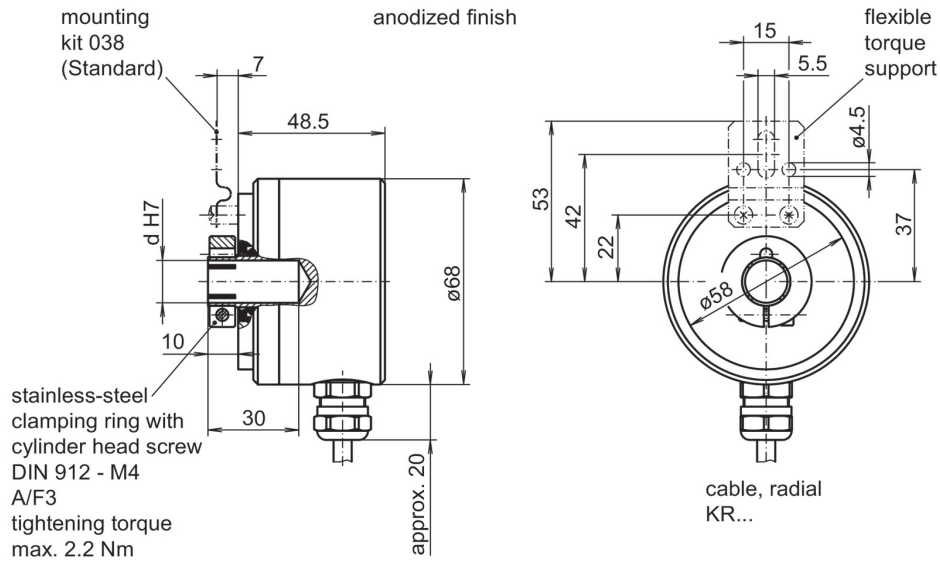
Outputs	Linedriver
Output level High	≥ 2.4 V
Output level Low	≤ 0.5 V
Load	≤ 70 mA

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

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200...6000 pulses per revolution

Dimensions



ITD 21 A 4 Y109

 Blind hollow shaft $\varnothing 10$ to $\varnothing 14$ mm
 200...6000 pulses per revolution

Ordering reference

Product	ITD 21 A 4 Y109	#####	#	NI	KR1	S	##	IP66	038
Pulse number	ITD 21 A 4 Y109								
200		200							
250		250							
256		256							
300		300							
360		360							
400		400							
500		500							
512		512							
600		600							
720		720							
800		800							
900		900							
1000		1000							
1024		1024							
1200		1200							
1250		1250							
1440		1440							
1500		1500							
1800		1800							
2000		2000							
2048		2048							
2500		2500							
3000		3000							
3600		3600							
4000		4000							
4096		4096							
5000		5000							
6000		6000							
Voltage supply / signals									
5 VDC / TTL level, linedriver				T					
8...30 VDC / HTL level, push-pull				H					
8...30 VDC / TTL level, linedriver				R					
Output signals									
A, A inv, B, B inv, N, N inv				NI					
Connection									
Cable 1 m, radial					KR1				
Operating temperature									
-20...+70 °C						S			
Blind hollow shaft									
$\varnothing 10$ mm								10	
$\varnothing 12$ mm								12	
$\varnothing 14$ mm								14	
Protection									
IP 66								IP66	
Mounting kit									
Mounting kit 038									038