

ITD 2 A 4 Y22

Blind hollow shaft $\varnothing 10$ to $\varnothing 14$ mm

2...60 pulses per revolution

Overview

- Encoder with blind hollow shaft $\varnothing 10...14$ mm
- Max. 60 pulses per revolution
- Optical sensing method
- Mounting by torque support
- TTL or HTL output signals
- Flange connector radial



Technical data

Technical data - electrical ratings

Voltage supply	5 VDC ± 5 % 8...30 VDC
Reverse polarity protection	Yes
Consumption w/o load	≤ 100 mA
Pulses per revolution	2 ... 60
Reference signal	Zero pulse, width 90°
Sensing method	Optical
Output frequency	≤ 120 kHz
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

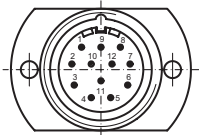
Size (flange)	$\varnothing 58$ mm
Shaft type	$\varnothing 10$ mm (blind hollow shaft) $\varnothing 12$ mm (blind hollow shaft) $\varnothing 14$ mm (blind hollow shaft)

Technical data - mechanical design

Mounting kit	002
Protection DIN EN 60529	IP 65
Operating speed	≤ 8000 rpm
Starting torque	$\leq 0,01$ Nm (+20 °C)
Material	Housing: aluminium, black, powder-coated 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 100 g, 11 ms
Connection	Connector M23 type 2, 12-pin
Weight approx.	280 g

Terminal assignment

Connector	Assignment
Pin 5	Track A
Pin 6	Track A inv.
Pin 8	Track B
Pin 1	Track B inv.
Pin 3	Track N
Pin 4	Track N inv.
Pin 12	UB
Pin 10	GND
Pin 2	UB-Sense
Pin 11	GND-Sense
Pin 9	–
Pin 7	–



Trigger level

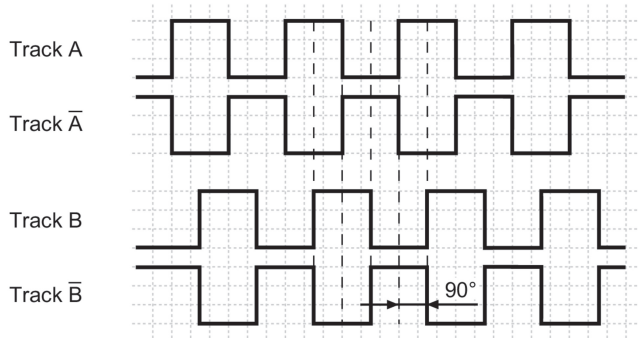
Outputs	Linedriver
Output level High	≥ 2.4 V
Output level Low	≤ 0.5 V
Load	≤ 70 mA

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

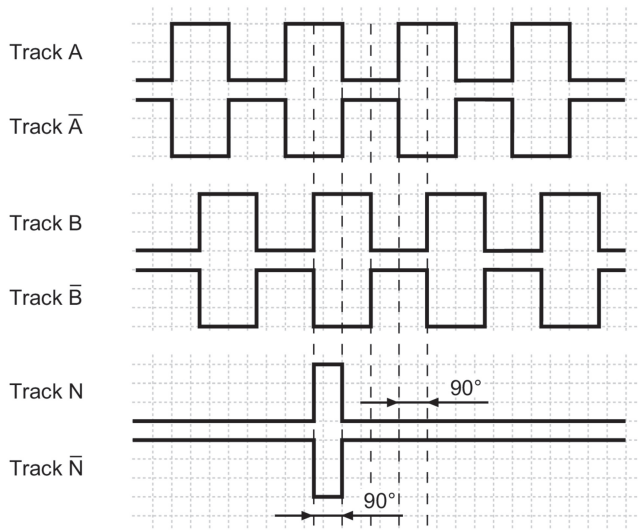
Output signals

Clockwise rotation when looking at the mounting side.

BI-Output signals



NI-Output signals

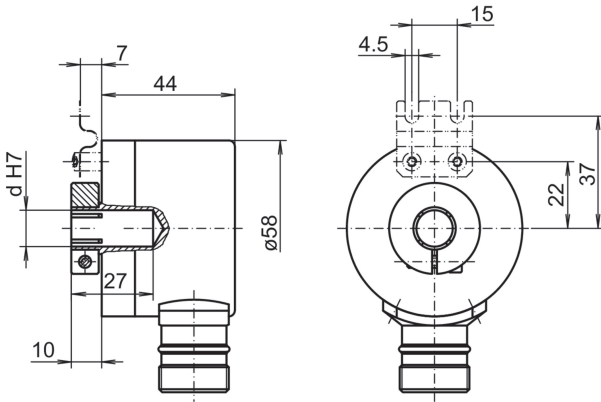


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Dimensions



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Blind hollow shaft ø10 to ø14 mm

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Ordering reference

Product	ITD 2 A 4 Y22	#####	#	####	D2SR12	S	##	IP65	002
Pulse number	ITD 2 A 4 Y22								
2		2							
5		5							
10		10							
12		12							
14		14							
15		15							
16		16							
18		18							
20		20							
21		21							
23		23							
25		25							
30		30							
32		32							
50		50							
60		60							
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				BI					
A, A inv, B, B inv, N, N inv				NI					
Connection									
Flange connector type 2, pin contacts, radial, 12-pin					D2SR12				
Operating temperature									
-20...+70 °C						S			
Blind hollow shaft									
ø10 mm							10		
ø12 mm							12		
ø14 mm							14		
Protection									
IP 65								IP65	
Mounting kit									
Mounting kit 002									002

Accessories

Connectors and cables

11072792 Connector M23 - S2BG12, 1 m cable (incremental)