

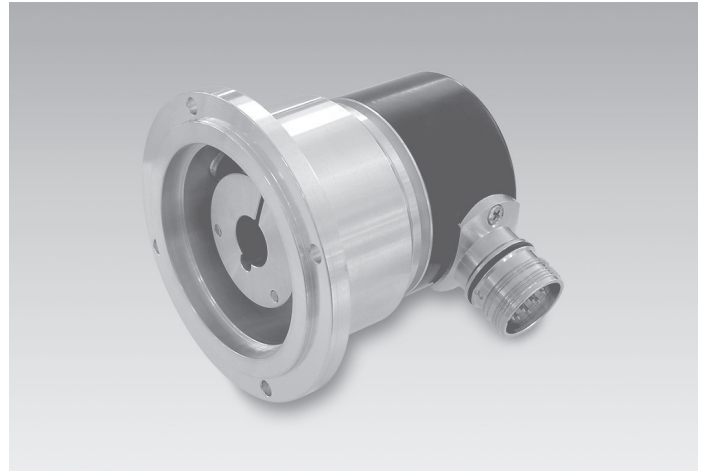
ITD 20 A 4 Y10

Blind hollow shaft $\varnothing 6$ to $\varnothing 16$ mm

50...1024 pulses per revolution

Overview

- Encoder with coupling max. $\varnothing 16$ mm
- Max. 1024 pulses per revolution
- Optical sensing method
- Centering alignment $\varnothing 70$ mm, mounting screw hole circle $\varnothing 77$ mm
- TTL or HTL output signals
- Flange connector radial or axial



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	50 ... 1024
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	$\varnothing 6$...16 mm (blind hollow shaft)
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.	430 g

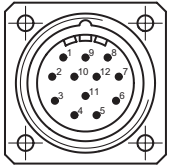
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Terminal assignment

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

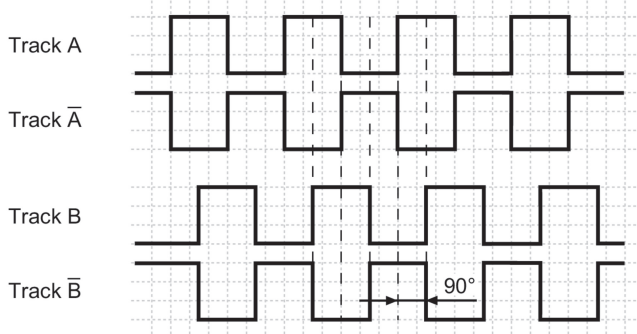
Outputs

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

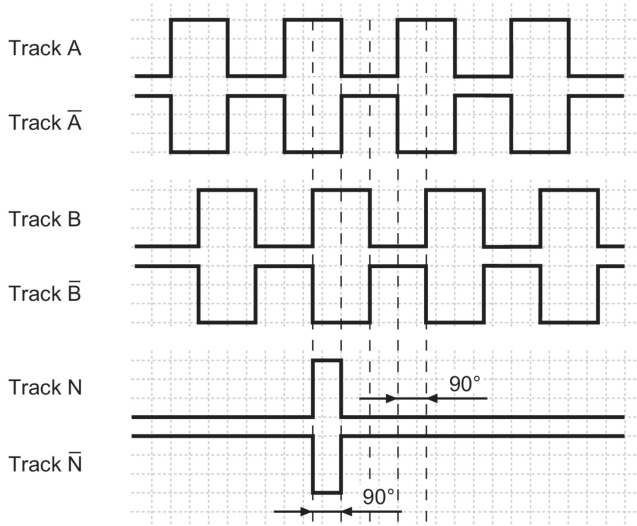
Output signals

Clockwise rotation when looking at the mounting side.

BI-Output signals



NI-Output signals

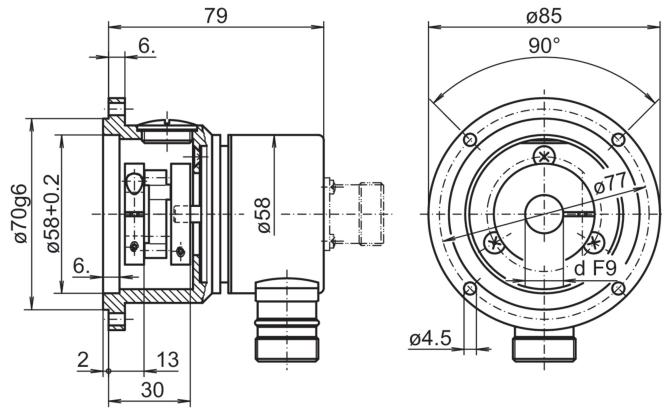


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50...1024 pulses per revolution

Dimensions



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Blind hollow shaft ø6 to ø16 mm

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Ordering reference

Product	ITD 20 A 4 Y10	#####	#	####	#####	S	##	IP65
Pulse number	ITD 20 A 4 Y10							
50		50						
60		60						
64		64						
88		88						
90		90						
100		100						
120		120						
128		128						
200		200						
250		250						
254		254						
256		256						
360		360						
400		400						
500		500						
512		512						
600		600						
1000		1000						
1024		1024						
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			
Flange connector type 2, pin contacts, axial, 12-pin					D2SA12			
Operating temperature								
-20...+70 °C						S		
Blind hollow shaft								
ø6 mm							6	
ø10 mm							10	
ø11 mm							11	
ø12 mm							12	
ø14 mm							14	
ø15 mm							15	
ø16 mm							16	
Protection								
IP 65								IP65

Accessories

Connectors and cables

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