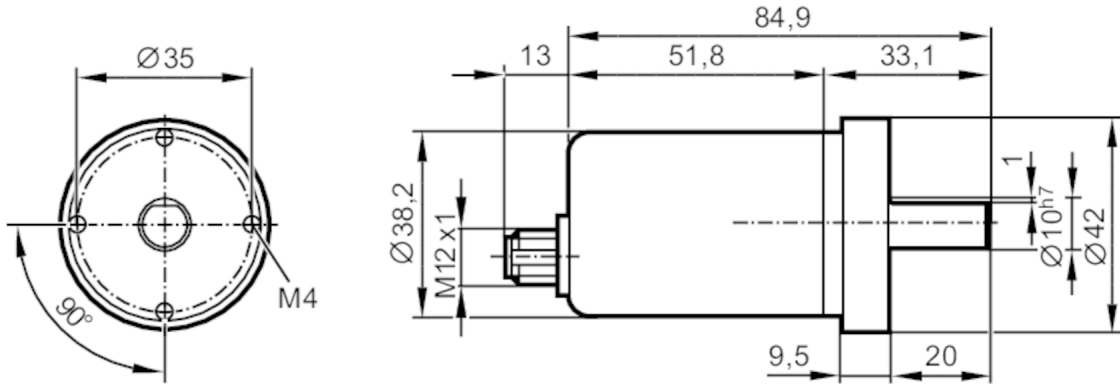


RB3110



Incremental encoder with solid shaft

INCREMENTAL ENCODER



Product characteristics

Resolution	1...10000; (parameterisable; Factory setting: 1024) resolution
Communication interface	IO-Link
Shaft design	solid shaft
Shaft diameter [mm]	10

Application

Function principle	incremental
Revolution type	incremental /singleturn
Detection system	magnetic

Electrical data

Operating voltage	[V]	4.75...30 DC
Current consumption	[mA]	< 150
Protection class		III
Reverse polarity protection		yes
Max. power-on delay time	[ms]	500
Max. revolution electrical	[U/min]	6000

Outputs

Electrical design	HTL/TTL
Switching frequency [kHz]	1000
Factory setting	Output function: HTL (50 mA)
Short-circuit protection	yes
Phase difference A and B [°]	90

Measuring/setting range

Resolution	1...10000; (parameterisable; Factory setting: 1024) resolution
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Accuracy / deviations

Accuracy	[°]	0.1
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Software / programming

Parameter setting options	Resolution; direction of rotation; HTL; TTL
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Interfaces		
Communication interface		IO-Link
Transmission type		COM2 (38,4 kBaud)
IO-Link revision		1.1
SIO mode		yes
Min. process cycle time	[ms]	2.3
Operating conditions		
Ambient temperature	[°C]	-40...85
Storage temperature	[°C]	-40...85
Max. relative air humidity	[%]	95; (condensation not permissible)
Protection		IP 68; IP 69K
Tests / approvals		
Vibration resistance	DIN EN 60068-2-6	20 g
Shock resistance	DIN EN 60068-2-27	200 g 11 ms
Continuous shock resistance	DIN EN 60068-2-29	20 g / 10...1000 Hz
Vibration resistance		30 g / 10...1000 Hz
MTTF	[years]	292
Mechanical data		
Weight	[g]	443.4
Dimensions	[mm]	Ø 42 / L = 107.9
Materials		flange: stainless steel (316L/1.4404); housing: stainless steel (316L/1.4404)
Tightening torque	[Nm]	< 0.7; (Mounting screw)
Max. revolution, mechanical [U/min]		6000
Max. starting torque [Nm]		5
Reference temperature torque	[°C]	20
Shaft design		solid shaft
Shaft diameter	[mm]	10
Shaft material		stainless steel (440B/1.4112)
Installation depth of shaft	[mm]	22
Max. axial shaft misalignment [mm]		0,5
Fixing flange		Ø 42 mm
Electrical connection		
IO-Link		
1	L+	
2	not to be used	
3	L-	
4	IO-Link	
5	not to be used	
Screen	plug	
encoder		
1	UB	
2	A	
3	GND	
4	Z/0-Pulse (90 deg)	
5	B	
Screen	plug	

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Electrical connection - plug

Connector: 1 x M12, axial; coding: A; Moulded body: stainless steel (316 / 1.4401)

