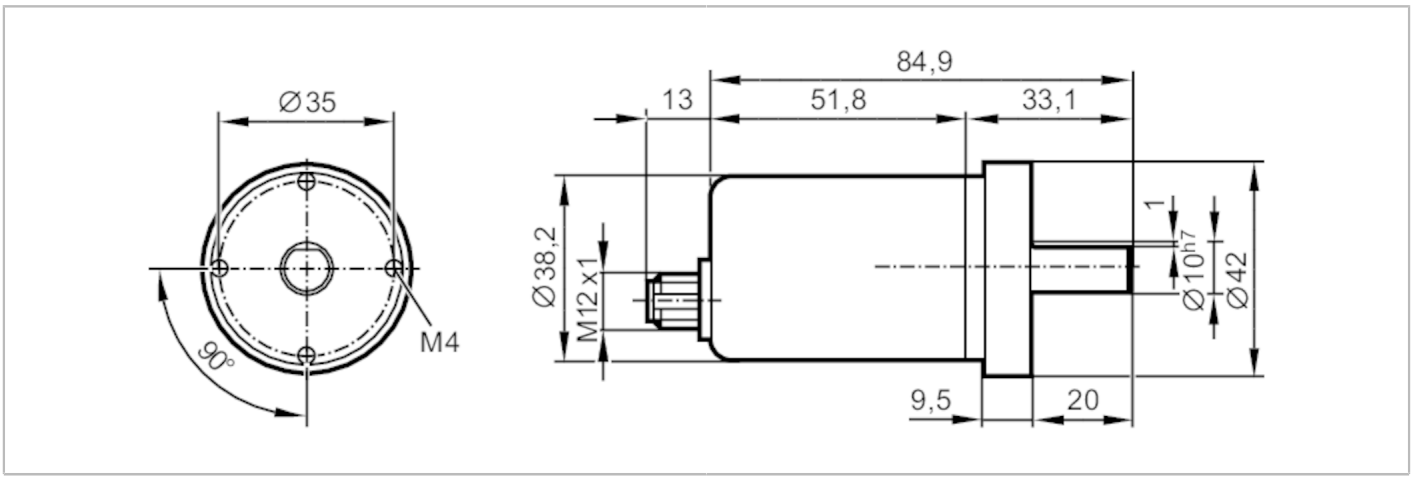
RB3110

Incremental encoder with solid shaft

INCREMENTAL ENCODER



IO-Link

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
Accuracy / deviations		
Accuracy	[°]	0.1
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

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encoder

1	UB
2	A
3	GND
4	Z/0-Pulse (90 deg)
5	B
Screen	plug

Electrical connection - plug

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