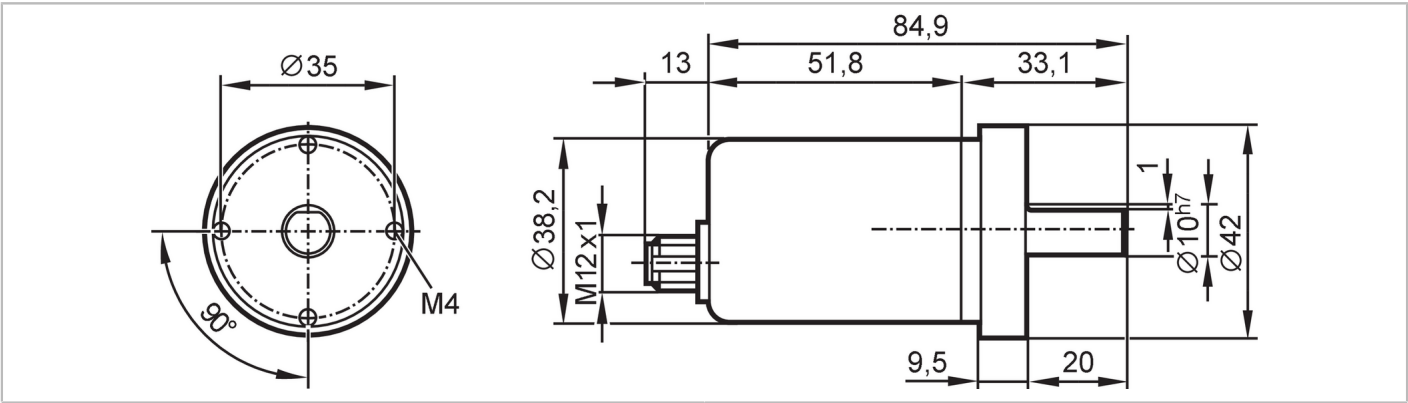


RB3110



Incremental encoder with solid shaft

INCREMENTAL ENCODER



Product characteristics		
Resolution		1...10000; (configurable; 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 und B	[°]	90
Measuring/setting range		
Resolution		1...10000; (configurable; Factory setting: 1024) resolution
Accuracy / deviations		
Accuracy	[°]	0.1
Software / programming		
Parameter setting options		Resolution; Direction of rotation; HTL; TTL
Interfaces		
Communication interface		IO-Link
Transmission type		COM2 (38,4 kBaud)



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IO-Link revision	1.1	
Profiles	Smart Sensor - SSP 0	Generic Profiled Sensor
	Function	Device identification
	Function	Process data variable
	Function	Device diagnosis
SIO mode	yes	
Min. process cycle time [ms]	2.3	
Supported DeviceIDs	Type of operation	DeviceID
	default	499

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	
Housing	tubular	
Dimensions [mm]	Ø 42 / L = 107.9	
Material	flange: stainless steel (1.4404 / 316L); housing: stainless steel (1.4404 / 316L)	
Tightening torque [Nm]	< 0.7; (Mounting screw)	
Max. revolution, mechanical [U/min]	6000	
Max. starting torque [Nm]	0.05	
Reference temperature torque [°C]	20	
Shaft design	solid shaft	
Shaft diameter [mm]	10	
Shaft material	stainless steel (1.4112 / 440B)	
Installation depth/shaft [mm]	22	
Max. axial shaft misalignment [mm]	0,5	
Fixing flange	Ø 42 mm	

Remarks

Pack quantity	1 pcs.
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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 (1.4401 / 316)

