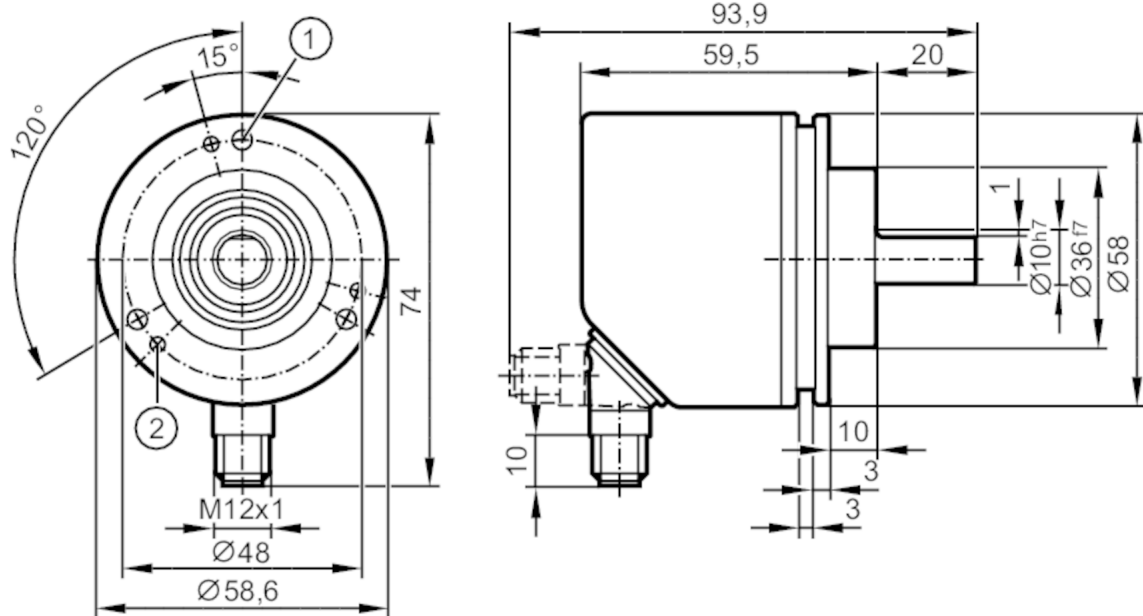


RV3100



Incremental encoder with solid shaft

INCREMENTAL ENCODER BASIC LINE



- 1 M4 x 0.7 Depth 6 mm
2 M3 x 0.5 Depth 6 mm



Application

Function principle	incremental
Detection system	magnetic

Electrical data

Operating voltage [V]	4.75...30 DC
Current consumption [mA]	< 150
Protection class	III
Reverse polarity protection	yes
Power-on delay time [s]	0.5
Max. revolution electrical [U/min]	12000

Outputs

Electrical design	HTL/TTL
Max. current load per output [mA]	50
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; (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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Incremental encoder with solid shaft

INCREMENTAL ENCODER BASIC LINE

Interfaces		
Communication interface		IO-Link
Transmission type		COM 2
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 65; IP 66; (on the housing: IP 67; on the shaft: IP 64)
Tests / approvals		
Shock resistance		200 g
Vibration resistance		30 g
MTTF	[years]	292
Mechanical data		
Weight	[g]	362.6
Dimensions	[mm]	Ø 58 / L = 79.5
Materials		flange: aluminium; housing: stainless steel (1.4521 / 444); plug: stainless steel (1.4401 / 316)
Max. revolution, mechanical	[U/min]	12000
Max. starting torque	[Nm]	1
Reference temperature torque	[°C]	20
Shaft design		solid shaft
Shaft diameter	[mm]	10
Shaft material		stainless steel
Max. shaft load axial (at the shaft end)	[N]	40
Max. shaft load radial (at the shaft end)	[N]	60
Fixing flange		clamping flange
Electrical connection		
IO-Link		
1	L+	
2	not to be used	
3	L-	
4	IO-Link	
5	not to be used	
Screen	plug	



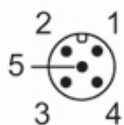
Incremental encoder with solid shaft

INCREMENTAL ENCODER BASIC LINE

encoder

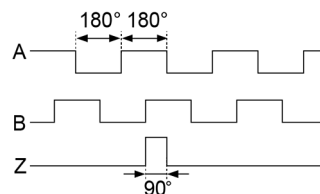
1	UB
2	A
3	GND
4	Z/0-Pulse (90 deg)
5	B
Screen	plug

Connector: 1 x M12, radial, can also be used axially; Moulded body: stainless steel (1.4401 / 316); Maximum cable length: 100 m



Diagrams and graphs

Pulse diagram



direction of rotation clockwise (looking at the shaft)