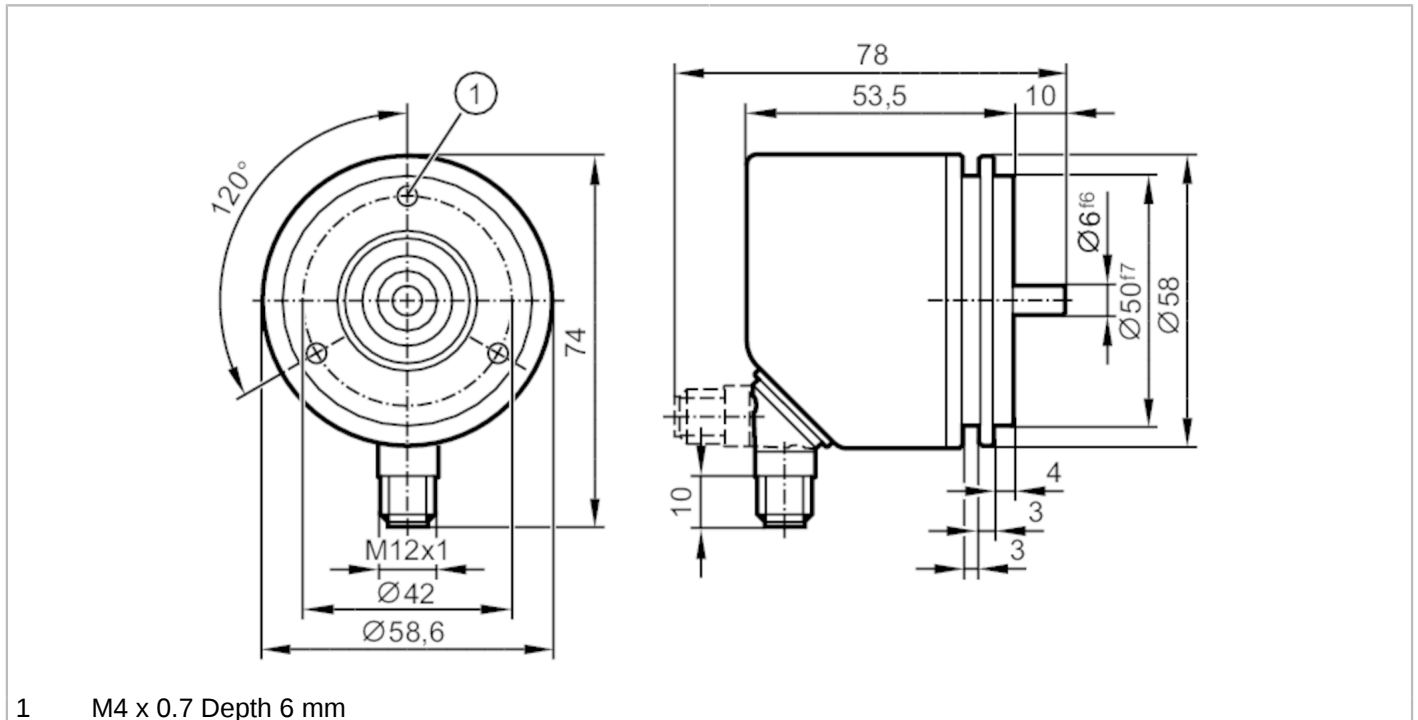


RU3110



Incremental encoder with solid shaft

INCREMENTAL ENCODER



1 M4 x 0.7 Depth 6 mm



Product characteristics	
Resolution	1...10000; (parameterisable; Factory setting: 1024) resolution
Communication interface	IO-Link
Shaft design	solid shaft
Shaft diameter [mm]	6
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
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



Incremental encoder with solid shaft

INCREMENTAL ENCODER

Accuracy / deviations		
Accuracy	[°]	0.1
Software / programming		
Parameter setting options		Resolution; direction of rotation; HTL; TTL
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 67; (IP 67: on the housing; IP 64: on the shaft)
Tests / approvals		
Shock resistance		100 g
Vibration resistance		20 g
Mechanical data		
Weight	[g]	596.5
Dimensions	[mm]	Ø 58 / L = 63.5
Materials		flange: stainless steel (1.4571/316Ti); 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]	6
Shaft material		stainless steel (1.4571/316Ti)
Max. shaft load axial (at the shaft end)	[N]	40
Max. shaft load radial (at the shaft end)	[N]	60
Fixing flange		synchro-flange
Electrical connection		
IO-Link		
1	L+	
2	not to be used	
3	L-	
4	IO-Link	
5	not to be used	
Screen	plug	

RU3110



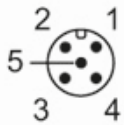
Incremental encoder with solid shaft

INCREMENTAL ENCODER

encoder

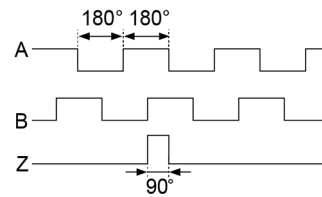
1	UB
2	A
3	GND
4	Z/0-Pulse (90 deg)
5	B
Screen	plug

Connector: 1 x M12, radial, can also be used axially; Moulded body: stainless steel (1.4401 / 316); Maximum cable length: 100 m; (IO-Link: max. 20 m)



Diagrams and graphs

Pulse diagram



direction of rotation clockwise (looking at the shaft)