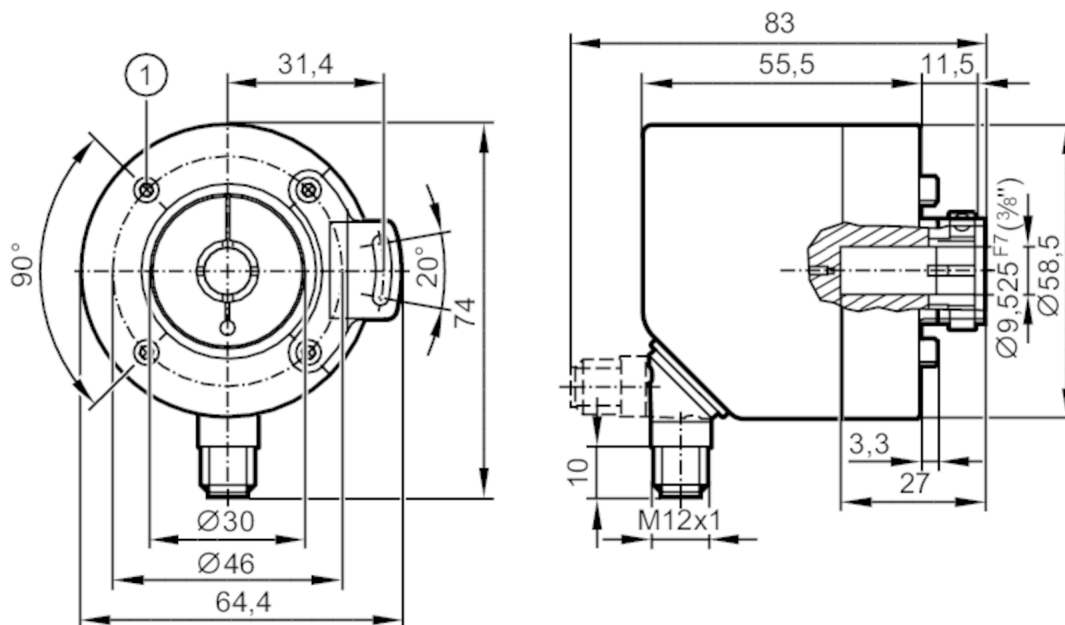


RO3103



Hollow shaft encoder open to one side

INCREMENTAL ENCODER BASIC LINE



1 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
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
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		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 65)
Tests / approvals		
Shock resistance		100 g
Vibration resistance		20 g
MTTF	[years]	292
Mechanical data		
Weight	[g]	434.8
Dimensions	[mm]	Ø 58.5 / L = 69
Materials		flange: aluminium; housing: stainless steel (1.4521 / 444); plug: stainless steel (1.4401 / 316)
Tightening torque	[Nm]	< 0.7; (Mounting screw)
Max. revolution, mechanical	[U/min]	12000
Max. starting torque	[Nm]	2
Reference temperature torque	[°C]	20
Shaft design		hollow shaft open to one side
Shaft diameter	[mm]	9.525
Shaft material		stainless steel
Installation depth of shaft	[mm]	27
Max. axial shaft misalignment	[mm]	0,5
Electrical connection		
IO-Link		
1	L+	
2	not to be used	
3	L-	
4	IO-Link	
5	not to be used	
Screen	plug	



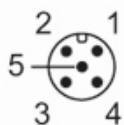
Hollow shaft encoder open to one side

INCREMENTAL ENCODER BASIC LINE

encoder

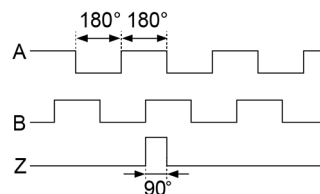
1	UB
2	A
3	GND
4	Z/0-Pulse (90 deg)
5	B
Screen	plug

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)