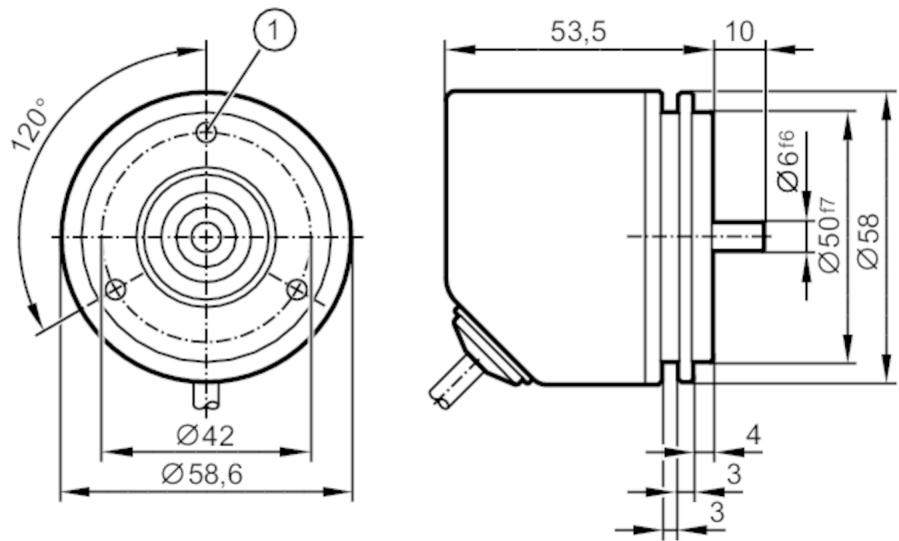


RU3500



Incremental encoder with solid shaft

INCREMENTAL ENCODER BASIC LINE



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
------------	--

Accuracy / deviations

Accuracy [°]	0.1
--------------	-----



Incremental encoder with solid shaft

INCREMENTAL ENCODER BASIC LINE

Software / programming		
Parameter setting options		Resolution; direction of rotation; HTL; TTL
Interfaces		
Communication interface	IO-Link	
Transmission type	COM2 (38,4 kBaud)	
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...80
Note on ambient temperature		for flexibly laid cable: -25 °C
Storage temperature	[°C]	-40...80
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		100 g
Vibration resistance		20 g
MTTF	[years]	292
Mechanical data		
Weight	[g]	434.5
Housing		cylindrical
Dimensions	[mm]	Ø 58 / L = 63.5
Materials		flange: aluminium; housing: stainless steel (444/1.4521); cable plug: PA
Max. revolution, mechanical [U/min]		12000
Max. starting torque	[Nm]	0.01
Reference temperature torque	[°C]	20
Shaft design		solid shaft
Shaft diameter	[mm]	6
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		synchro-flange
Remarks		
Pack quantity		1 pcs.



Incremental encoder with solid shaft

INCREMENTAL ENCODER BASIC LINE

Electrical connection

Cable: 2 m, Ø 4.9 mm; radial, can also be used axially; 5 x 0.14 mm²

IO-Link

brown	L+
white	not to be used
blue	L-
grey	not to be used
black	IO-Link
Screen	housing

encoder

brown	UB
white	A
blue	GND
grey	B
black	Z/0-Pulse (90 deg)
Screen	housing

Diagrams and graphs

Pulse diagram

