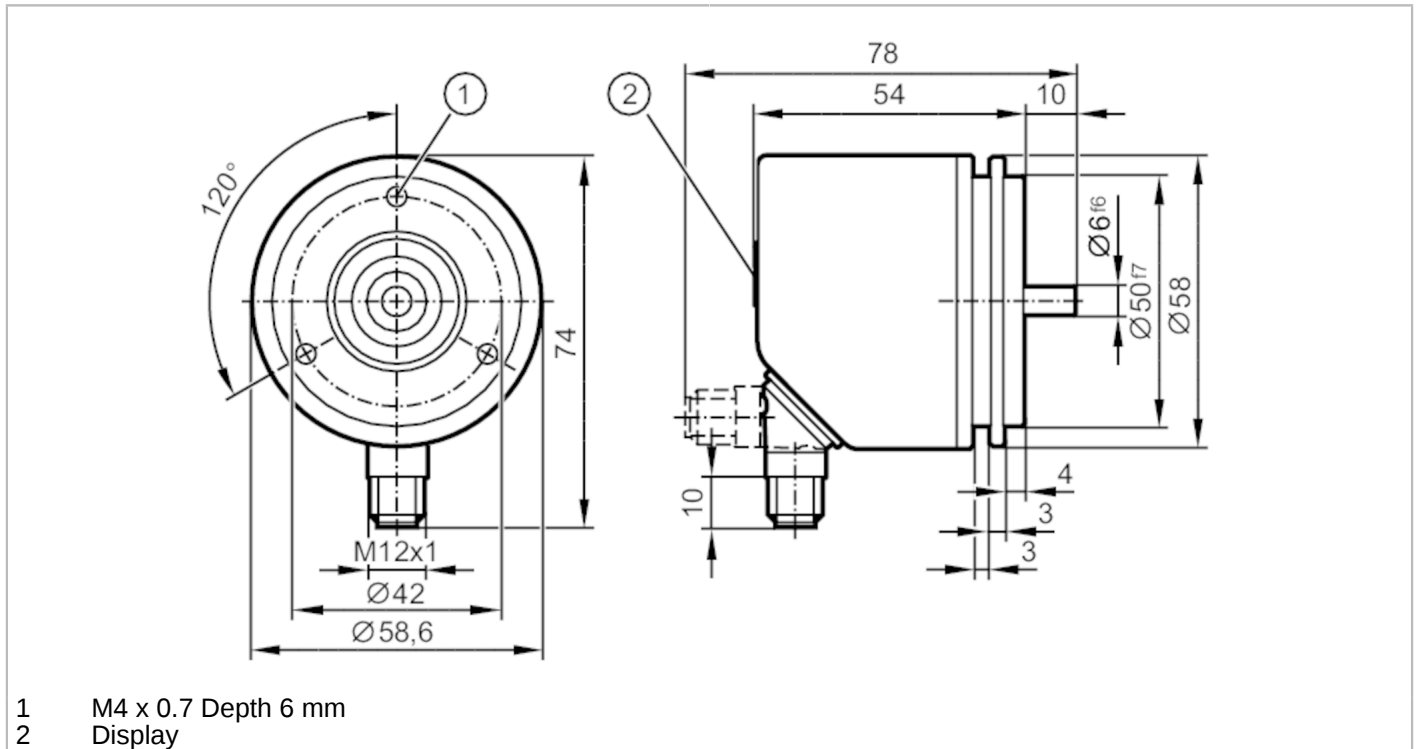


RUP500



Incremental encoder with solid shaft and display

INCREMENTAL ENCODER PERFORMANCE LINE



- 1 M4 x 0.7 Depth 6 mm
- 2 Display



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
Application	encoder; Speed monitor; counter
Electrical data	
Operating voltage [V]	4.75...30 DC
Current consumption [mA]	< 350
Protection class	III
Reverse polarity protection	yes
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



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Speed monitor		
Set point SP	[U/min]	-9994...9999
Set point SP	[Hz]	-166.6...166.7
Reset point rP	[U/min]	-9999...9994
Reset point rP	[Hz]	-166.7...166.6
Counter		
Preset point		1...9999
Accuracy / deviations		
Accuracy	[°]	0.1
Software / programming		
Parameter setting options	encoder; Resolution; direction of rotation; HTL; TTL; Speed monitor; Resolution	
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 67: on the housing; IP 64: on the shaft)	
Tests / approvals		
Shock resistance		100 g
Vibration resistance		20 g
MTTF	[years]	218
Mechanical data		
Weight	[g]	437
Dimensions	[mm]	Ø 58 / L = 64
Materials	flange: aluminium; housing: stainless steel; plug: stainless steel; display window: PEI	
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	
Max. shaft load axial (at the shaft end)	[N]	40
Max. shaft load radial (at the shaft end)	[N]	60
Fixing flange	synchro-flange	

RUP500



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Displays / operating elements		
Display		10-segment display, red/ green 4-digit parameterisable
		2 x LED, yellow
		5 x LED, green

Electrical connection		
IO-Link		
1	L+	
2	not to be used	
3	L-	
4	IO-Link	
5	not to be used	
6	not to be used	
7	not to be used	
8	not to be used	
Screen	plug	

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

Speed monitor		
1	UB	
2	OUT2	
3	GND	
4	not to be used	
5	OUT1	
6	OUT2-	
7	OUT1-	
8	not to be used	
Screen	plug	

RUP500



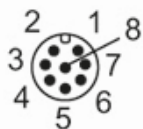
Incremental encoder with solid shaft and display

INCREMENTAL ENCODER PERFORMANCE LINE

Preset counter

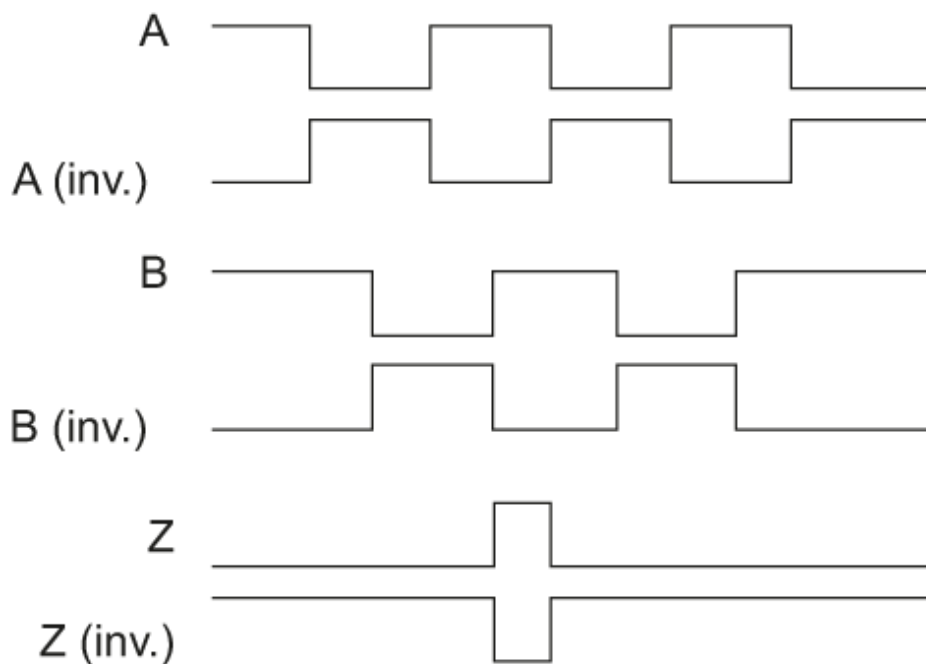
1	UB
2	IN1
3	GND
4	not to be used
5	OUT1
6	not to be used
7	not to be used
8	not to be used
Screen	plug

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



Diagrams and graphs

Pulse diagram



direction of rotation clockwise (looking at the shaft)