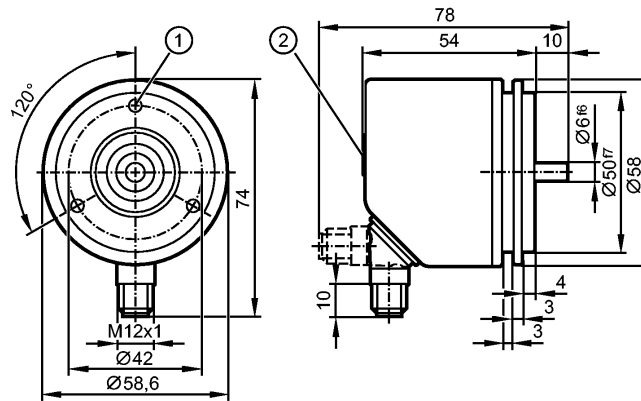


RUP500

INCREMENTAL ENCODER PERFORMANCE

Encoders

LINE



1: M4 x 0.7 6 mm deep

2: display

CE IO-Link

Product characteristics

Solid shaft encoder

HTL, TTL 50 mA

Connector

display

Magnetic detection system

Synchro-flange

Resolution 1...10000

Application

Application

encoder - speed monitor - counter function

Electrical data

Operating voltage [V] 4.75...30 DC

Current consumption [mA] < 350

Max. permissible rpm / elec. [1/min] 12000

Phase difference A und B [°] 90

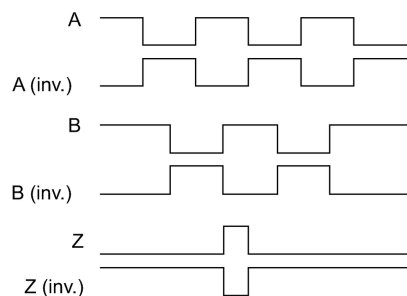
Switching frequency [kHz] 1000

Reverse polarity protection yes

Short-circuit protection yes

Protection class III

Pulse diagram



Direction of rotation clockwise (looking at the shaft)

Outputs

Output function

HTL, TTL 50 mA

Measuring / setting range

Encoders

RUP500

INCREMENTAL ENCODER PERFORMANCE LINE

Resolution	programmable, factory setting 1024	
Speed monitor		
Set point, SP	-9994...9999 [1/min]	-166.6...166.7 [Hz]
Reset point, rP	-9999...9994 [1/min]	-166.7...166.6 [Hz]
Counter		
Preset point	1...9999	

Accuracy / deviations

Accuracy	< 0.1
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Software / programming

Programming options	encoder: Resolution, rotational direction, HTL, TTL; Speed monitor; Resolution
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Interfaces

IO-Link device	
Transfer type	COM 2
IO-Link revision	V1.1
SIO mode	yes
Min. process cycle time [ms]	2.3

Mechanical data

Max. permissible rpm / mech. [1/min]	12000
Starting torque [Ncm]	< 1 (20 °C)
Max. shaft load (at the shaft end) [N]	axial 40; radial 60
Shaft, material [mm]	Ø 6, stainless steel
Vibration resistance	30 g
Shock resistance	200 g
Housing materials	flange: aluminium; housing: stainless steel; connector: stainless steel; display window: PEI
Weight [kg]	0.427

Environment

Max. relative air humidity [%]	95, Condensation not permissible
Ambient temperature [°C]	-40...85
Storage temperature [°C]	-40...85
Protection	IP 65; IP 67 (housing); IP 64 (shaft)

Tests / approvals

MTTF [Years]	218.3
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Displays / operating elements

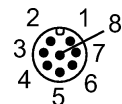
Display	4-digit 10-segment display red/green programmable 2 LEDs yellow 6 LEDs green (5 active)
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Electrical connection

Connection	M12 connector; radial, can also be used axially; 8 pole
Max. cable length [m]	100

Wiring

IO-Link:		Speed monitor:	
1: L+		1: UB	
2: not to be used		2: OUT2	
3: L-		3: GND	





RUP500

INCREMENTAL ENCODER PERFORMANCE LINE

4:	IO-Link	4:	not to be used
5:	not to be used		used
6:	not to be used	5:	OUT1
7:	not to be used	6:	OUT2-
8:	not to be used	7:	OUT1-
		8:	not to be used
screen:	plug	screen:	plug
encoder:		preset	
1:	UB	counter:	
2:	A	1:	UB
3:	GND	2:	IN1
4:	Z/0-Pulse (90 deg)	3:	GND
5:	B	4:	not to be used
6:	A-		used
7:	B-	5:	OUT1
8:	Z-	6:	not to be used
screen:	plug		used
		7:	not to be used
			used
		8:	not to be used
			used
		screen:	plug

Remarks

Pack quantity [piece] 1