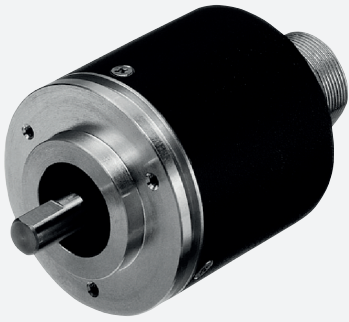


Incremental rotary encoder

RVI50N-09B**A*T



- Sturdy and compact design
- Up to 2500 ppr
- 4.75 V ... 30 V with short-circuit proof push-pull output

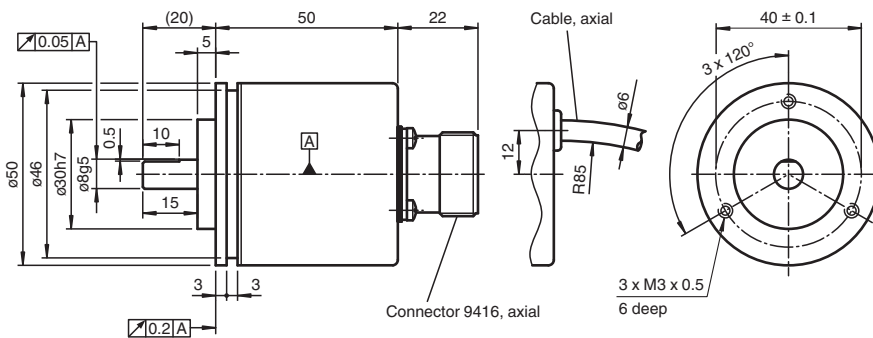
Incremental rotary encoder



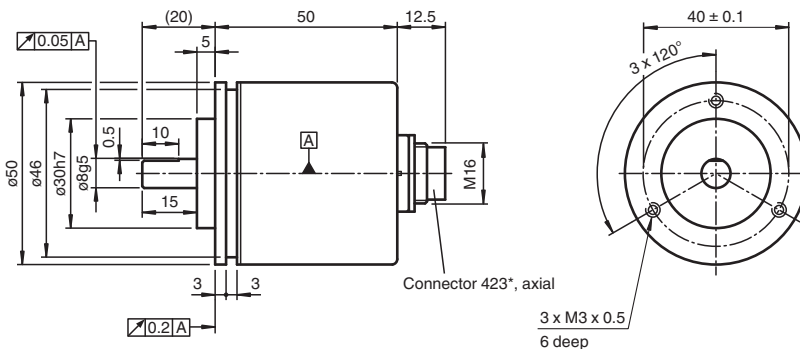
Function

The RVI50 is characterised by its small housing diameter of 50 mm with equal technical data compared to other encoder series. The centering shoulder makes it possible to fit the unit very precisely. In addition to the three M3 holes, the encoder has a servo infeed on the circumference. This allows you to make a slight adjustment to the reference point of the incremental rotary encoder by turning the housing. The clamping element that grips into the servo infeed ensures that the incremental rotary encoder stays firmly in place without slipping out of adjustment. The pulse disk is designed in plastic up to 600 pulses. Beyond that, glass is used.

Dimensions



Clamping flange



Clamping flange

Release date: 2023-03-09 Date of issue: 2023-03-09 Filename: t2404_eng.pdf

Refer to "General Notes Relating to Pepperl+Fuchs Product Information".

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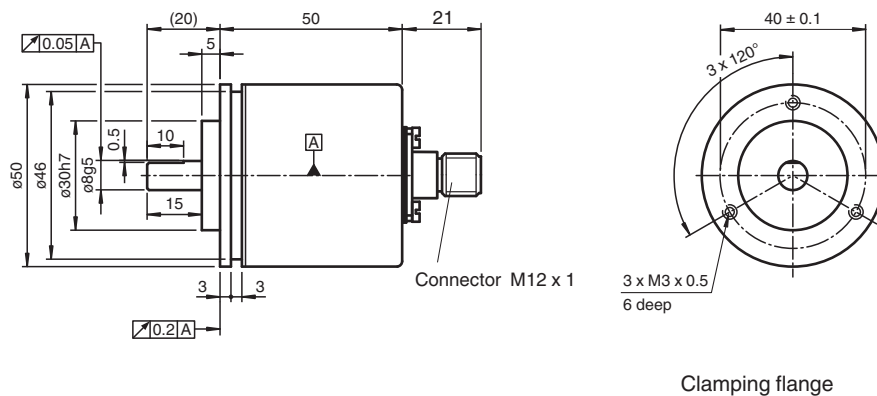
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PEPPERL+FUCHS

Dimensions



Technical Data

General specifications			
Detection type			photoelectric sampling
Pulse count			max. 2500
Electrical specifications			
Operating voltage	U_B		4.75 ... 30 V DC
No-load supply current	I_0		max. 80 mA
Output			
Output type			push-pull, incremental
Voltage drop	U_d		< 4 V
Load current			max. per channel 40 mA , short-circuit protected
Output frequency			max. 160 kHz
Rise time			980 ns
De-energized delay	t_{off}		980 ns
Connection			
Connector			type 9416 (M23), 12-pin or type 42306 (M16), 6-pin
Cable			Ø6 mm, 5 x 0.38 mm ² , 0.5 m
Standard conformity			
Degree of protection			DIN EN 60529, IP50
Climatic testing			DIN EN 60068-2-78 , no moisture condensation
Emitted interference			EN 61000-6-4:2007/A1:2011
Noise immunity			EN 61000-6-2:2005
Shock resistance			DIN EN 60068-2-27, 100 g, 3 ms
Vibration resistance			DIN EN 60068-2-6, 10 g, 10 ... 2000 Hz
Approvals and certificates			
UL approval			cULus Listed, General Purpose, Class 2 Power Source
Ambient conditions			
Operating temperature			
Glass disk			-20 ... 70 °C (-4 ... 158 °F)
Plastic disk			-20 ... 60 °C (-4 ... 140 °F)
Storage temperature			
Glass disk			-40 ... 70 °C (-40 ... 158 °F)
Plastic disk			-40 ... 60 °C (-40 ... 140 °F)
Mechanical specifications			
Material			
Housing			powder coated aluminum
Flange			3.1645 aluminum

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Technical Data

Shaft	Stainless steel 1.4305 / AISI 303
Mass	approx. 220 g
Rotational speed	max. 10000 min ⁻¹
Moment of inertia	≤ 5 gcm ²
Starting torque	≤ 1.5 Ncm
Shaft load	
Axial	30 N
Radial	50 N

Accessories

	9312-3	Synchro clamping element
	9250	Angled flange
	9416	Female cordset
	42306A	Female connector, field-attachable
	42306B	Female cordset
	9401 8*8	Spring steel coupling
	9401 8*10	Spring steel coupling
	9402 8*8	Spring steel coupling
	9409 8*8	Bellows coupling
	KW-8/8	Helical coupling
	KW-8/10	Helical coupling
	9101, 8	Measuring wheel for shaft diameter 8 mm
	9102, 8	Measuring wheel for shaft diameter 8 mm
	9103, 8	Measuring wheel for shaft diameter 8 mm
	9108, 8	Measuring wheel for shaft diameter 8 mm
	9109, 8	Measuring wheel for shaft diameter 8 mm

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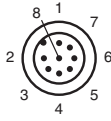
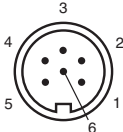
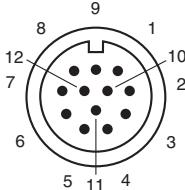
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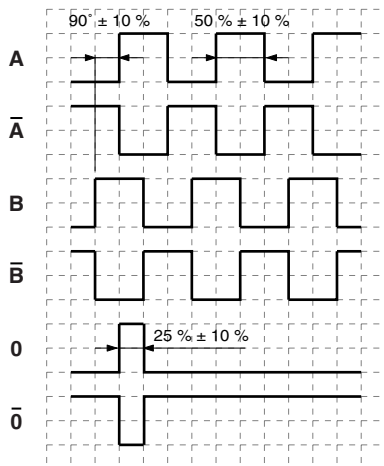
Accessories

	9110, 8	Measuring wheel for shaft diameter 8 mm
	9112, 8	Measuring wheel for shaft diameter 8 mm
	9113, 8	Measuring wheel for shaft diameter 8 mm
	42306A-*M-05P-RVI50/78	Female cordset single-ended M16 straight 6-pin, PVC cable 5-core, shielded

Signal	Cable Ø6 mm, 5-core	Connector M12 x 1, 8-pin	Connector 42306 (M16), 6-pin	Connector 9416 (M23), 12-pin
GND	Black	1	5	8
+U _b	Red	2	4	7
A	Green	3	1	1
B	White	5	2	3
\bar{A}	-	4	-	2
\bar{B}	-	6	-	4
0	Yellow	7	3	5
$\bar{0}$	-	8	-	6
Screen	-	Housing	Housing	Housing
				

Operation

Signal outputs



↻ cw - with view onto the shaft

Type Code

Order code

R V I 5 0 N - 0 9 B **N** - - - - - -

Pulse count 30, 60, 90, 100, 180, 200, 250, 300, 314, 360, 400, 500, 600, 720, 900, 1000, 1024, 1200, 1250, 1440, 1500, 1800, 2000, 2048, 2400, 2500

Option
N Normal

Connection type, cable exit, signal output, output switching

ALA3T Connector M16, type 42306, 6-pin, axial, A + B + 0, 4.75 V ... 30 V, push-pull

Release date: 2023-03-09 Date of issue: 2023-03-09 Filename: 12404_eng.pdf

Refer to "General Notes Relating to Pepperl+Fuchs Product Information".

Order code

R	V	I	5	0	N	-	0	9	B						N	-				
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Shaft version
V Solid shaft

Housing material
N Aluminium, powder coated

Shaft dimension
09 Shaft Ø8 mm x 15 mm

Flange version
B Clamping flange

- AAA3T** Connector M23, type 9416, 12-pin, axial, A + B + 0, 4.75 V ... 30 V, push-pull
- AAA66** Connector M23, type 9416, 12-pin, axial, A + B + 0 and $\bar{A} + \bar{B} + \bar{0}$, 5 V, RS 422
- BEA66** Connector M12 x 1, 8-pin, axial, A + B + 0 and $\bar{A} + \bar{B} + \bar{0}$, 5 V, RS 422
- BEA3T** Connector M12 x 1, 8-pin, axial, A + B + 0, 4.75 V ... 30 V, push-pull
- K0A3T** Cable Ø6 mm, 5 x 0.38 mm², 0.5 m, axial, A + B + 0, 4.75 V ... 30 V, push-pull

Option
N Normal

Pulse count 30, 60, 90, 100, 180, 200, 250, 300, 314, 360, 400, 500, 600, 720, 900, 1000, 1024, 1200, 1250, 1440, 1500, 1800, 2000, 2048, 2400, 2500