- **Sturdy and compact design**
- **Up to 2500 ppr**
- **5 V with RS 422 interface**

RVI50N-09B**A*6

Product description

The RVI50 is charcterised 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.

Technical data

General specifications		
Pulse count (ppr)		max. 2500
Electrical specifications		
Operating voltage		5 V DC ± 5 %
No-load supply current	I_0	max. 150 mA
Output		
Output type		RS 422, incremental
Operating current		max. per channel 20 mA , conditionally short-circuit proof
Output frequency		max. 160 kHz
Rise time		100 ns
De-energized delay	t_{off}	100 ns
Connection		
Connector		type 9416, 12-pin
Cable		Ø6 mm, 5 x 0.38 mm^2, 0.5 m
Standard conformity		
Protection degree		DIN EN 60529, IP50
Climatic testing		DIN EN 60068-2-3, no moisture condensation
Emitted interference		DIN EN 61000-6-4
Interference rejection		DIN EN 50082-2
Shock resistance		DIN EN 60068-2-27, 100 g, 3 ms
Vibration resistance		DIN EN 60068-2-6, 10 g, 10 ... 2000 Hz
Ambient conditions		
Operating temperature		
Glass disk		-20 ... 70 °C (253 ... 343 K)
Plastic disk		-20 ... 60 °C (253 ... 333 K)
Storage temperature		
Glass disk		-40 ... 70 °C (233 ... 343 K)
Plastic disk		-40 ... 60 °C (233 ... 333 K)
Mechanical specifications		
Material		
Housing		aluminium, powder coated
Flange		aluminium 3.1645
Shaft		stainless steel 1.4305
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

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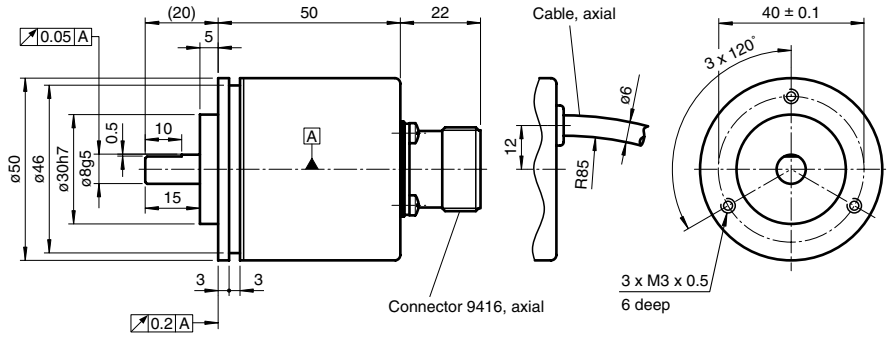
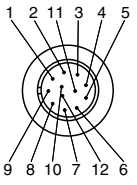
Radial	50 N

Dimensions

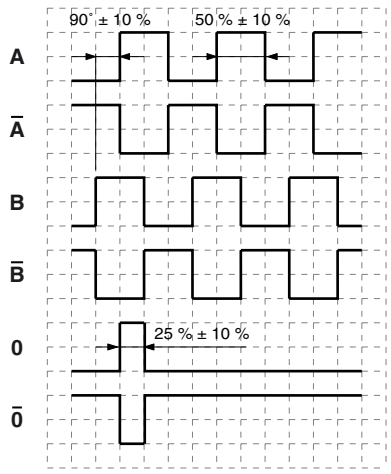


Clamping flange

Electrical connection

Signal	Cable Ø6 mm, 5-core	Connector 9416, 12-pin
GND	Black	8
$+U_b$	Red	7
A	Green	1
B	White	3
$\overline{A}$	-	2
$\overline{B}$	-	4
0	Yellow	5
$\overline{0}$	-	6
Screen	-	Housing
		

Signal outputs



↻ cw - with view onto the shaft

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Accessories

Accessories	Name/defining feature	Order code
Couplings	D1: Ø8 mm, D2: Ø8 mm	9401
	D1: Ø8 mm, D2: Ø8 mm	9402
	D1: Ø8 mm, D2: Ø8 mm	KW
Measurement wheels with circumference of 500 mm	Plastic	9101, 8
	Pimpled rubber	9102, 8
	Knurled aluminium	9103, 8
	Knurled plastic	9112, 8
Measurement wheels with circumference of 200 mm	Plastic	9108, 8
	Pimpled rubber	9109, 8
	Knurled aluminium	9110, 8
	Knurled plastic	9113, 8
Mounting aids	Mounting bracket	9250
	Eccentric clamping elements	9312-3
Connector	Cable socket	9416

For additional information on the accessories, please see the "Accessories" section.

Order code

R	V	I	5	0	N	–	0	9	B			A			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
AAA3T Connector type 9416, 12-pin, axial, A + B + 0, 4.75 V ... 30 V, push-pull
AAA66 Connector type 9416, 12-pin, axial, A + B + 0 and $\overline{A}$ + $\overline{B}$ + $\overline{0}$, 5 V, RS 422
K0A3T Cable Ø6 mm, 5 x 0.38 mm², 0.5 m, axial, A + B + 0, 4.75 V ... 30 V, push-pull

Flange version
B Clamping flange

Shaft dimension
09 Shaft Ø8 mm x 15 mm

Housing material
N Aluminium, powder coated

Shaft version
V Solid shaft

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