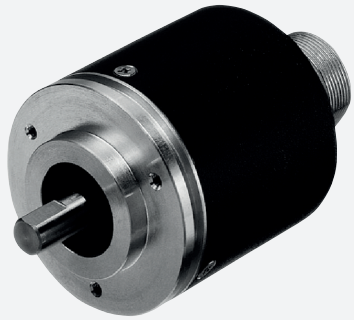


Incremental rotary encoder

RVI50N-09B**A*6

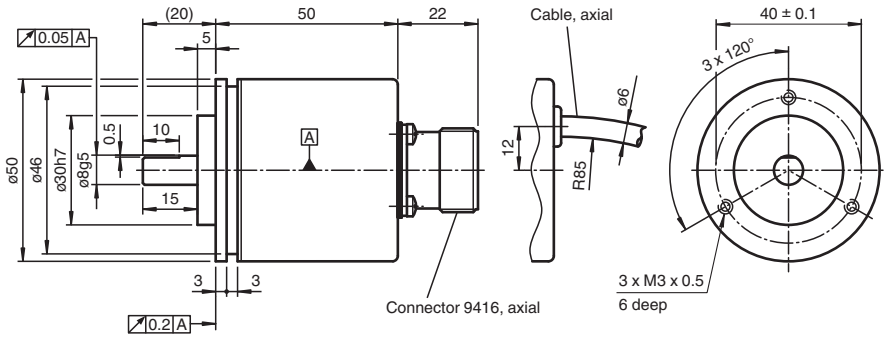
- Sturdy and compact design
- Up to 2500 ppr
- 5 V with RS-422 interface

Incremental rotary encoder

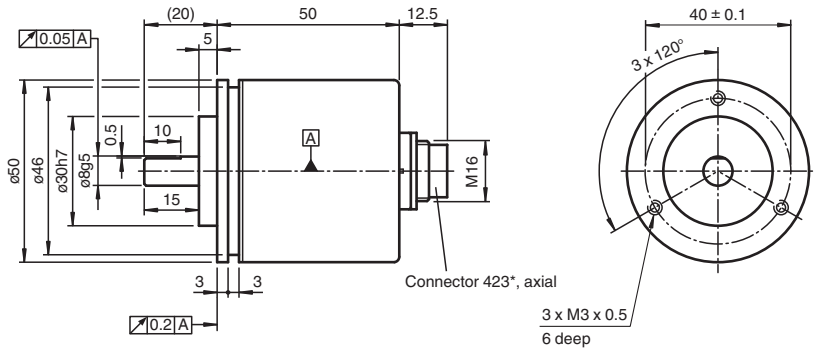
Function

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.

Dimensions



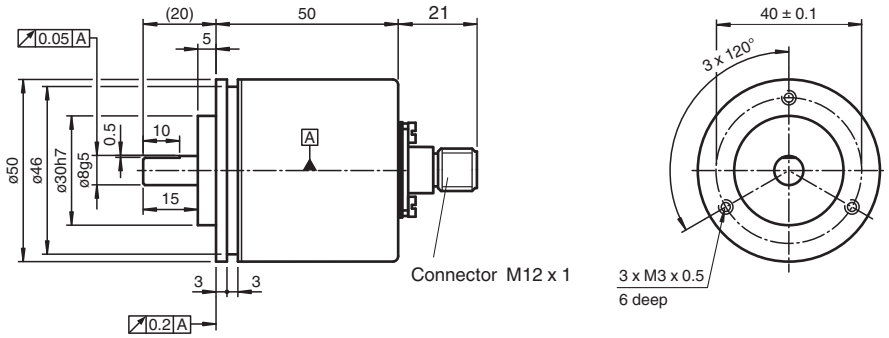
Clamping flange



Clamping flange

Release date: 2025-01-21 Date of issue: 2025-01-21 Filename: t2336_eng.pdf

Dimensions



Clamping flange

Technical Data

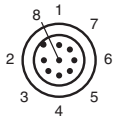
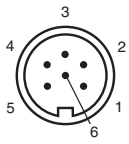
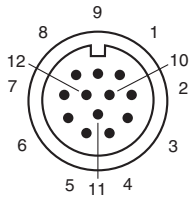
General specifications		
Detection type		photoelectric sampling
Pulse count		max. 2500
Electrical specifications		
Operating voltage	U_B	5 V DC ± 5 %
No-load supply current	I_0	max. 150 mA
Output		
Output type		RS 422, incremental
Load current		max. per channel 20 mA , conditionally short-circuit proof
Output frequency		max. 160 kHz
Rise time		100 ns
De-energized delay	t_{off}	100 ns
Connection		
Connector		type 9416 (M23), 12-pin or type 42306 (M16), 6-pin
Cable		Ø6 mm, 5 x 0.38 mm², 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
Shaft		Stainless steel 1.4305 / AISI 303

Release date: 2025-01-21 Date of issue: 2025-01-21 Filename: t2336_eng.pdf

Technical Data

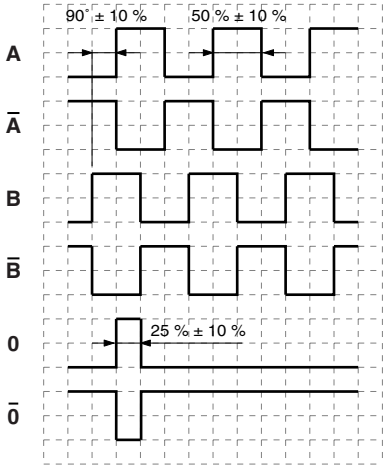
Mass		approx. 220 g
Rotational speed		max. 10000 min $^{-1}$
Moment of inertia		≤ 5 gcm^2
Starting torque		≤ 1.5 Ncm
Shaft load		
Axial		30 N
Radial		50 N
Dimensions		
Length		55 mm
Diameter		50 mm

Release date: 2025-01-21 Date of issue: 2025-01-21 Filename: t2336_eng.pdf

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
$\overline{A}$	-	4	-	2
$\overline{B}$	-	6	-	4
0	Yellow	7	3	5
$\overline{0}$	-	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: 2025-01-21 Date of issue: 2025-01-21 Filename: t2336_eng.pdf

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

Flange version

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 $\overline{A}$ + $\overline{B}$ + $\overline{0}$, 5 V, RS 422

BEA66 Connector M12 x 1, 8-pin, axial, A + B + 0 and $\overline{A}$ + $\overline{B}$ + $\overline{0}$, 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

B Clamping flange

Shaft dimension

09 Shaft Ø8 mm x 15 mm

Housing material

N Aluminium, powder coated

Shaft version

V Solid shaft

Release date: 2025-01-21 Date of issue: 2025-01-21 Filename: t2336_eng.pdf