

### Model Number

**RVI25Y-06DBFR61N-01000**

### Features

- **Industrial standard housing Ø2.5"**
- **10 V ... 30 V with short-circuit proof push-pull output**

### Description

The RVI25 series is Pepperl+Fuchs' industrial standard size 2,5" encoder. This encoder is well-suited for many applications with its rugged, industrial housing and variety of options. Standard mounting configurations include 1/4" and 3/8" shafts and servo or face mounts.

The pulse disk is designed in plastic up to 1500 pulses. Beyond that, glass is used.

Electrical options include push-pull and RS 422 outputs on either Mil-Spec connectors or cables. An optional shaft seal protects the encoder and gives it a protection rating of IP66.

## Technical data

### General specifications

Pulse count 1000

### Functional safety related parameters

MTTF<sub>d</sub> 140 a

Mission Time (T<sub>M</sub>) 20 a

L<sub>10h</sub> 70 E+9 at 6000 rpm

Diagnostic Coverage (DC) 0 %

### Electrical specifications

Operating voltage U<sub>B</sub> 10 ... 30 V DC

No-load supply current I<sub>0</sub> max. 60 mA

### Output

Output type push-pull, incremental

Voltage drop U<sub>d</sub> < 3 V

Load current max. per channel 40 mA, short-circuit protected (not with U<sub>b</sub>), reverse polarity protected

Output frequency max. 100 kHz

Rise time 400 ns

De-energized delay t<sub>off</sub> 400 ns

### Connection

Connector MS3102A18-1P, 10 pin

Cable Ø7.8 mm, 6 x 2 x 0.14 mm<sup>2</sup>, 2 m or 5 m

### Standard conformity

Degree of protection DIN EN 60529, IP66

Climatic testing DIN EN 60068-2-3, no moisture condensation

Emitted interference EN 61000-6-4:2007/A1:2011

Noise immunity DIN EN 61000-6-2

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 -20 ... 60 °C (-4 ... 140 °F)

Storage temperature -40 ... 70 °C (-40 ... 158 °F)

### Mechanical specifications

#### Material

Housing diecast zinc, not laquered or coated

Flange 3.1645 aluminum

Shaft Stainless steel 1.4305 / AISI 303

Mass approx. 397 g

Rotational speed max. 12000 min<sup>-1</sup>

Moment of inertia ≤ 25 gcm<sup>2</sup>

Starting torque ≤ 1.5 Ncm (with shaft seal)

≤ 1 Ncm (without shaft seal)

#### Shaft load

Axial 40 N at max. 6000 min<sup>-1</sup>

10 N at max. 12000 min<sup>-1</sup>

Radial 60 N at max. 6000 min<sup>-1</sup>

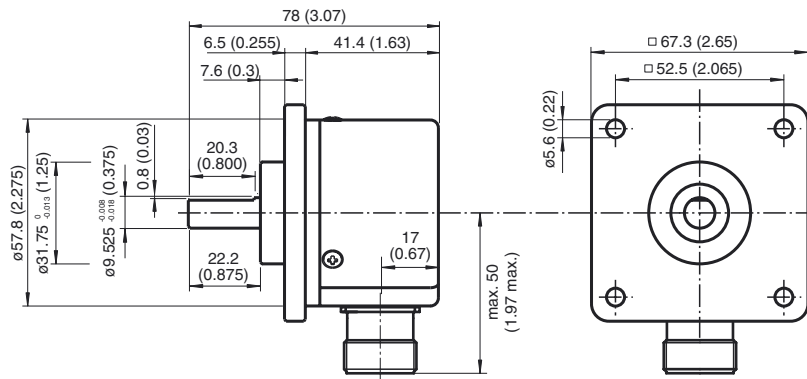
20 N at max. 12000 min<sup>-1</sup>

### Approvals and certificates

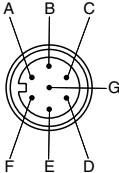
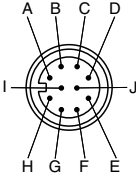
UL approval cULus Listed, General Purpose, Class 2 Power Source

Dimensions

Dimensions in mm (inch)

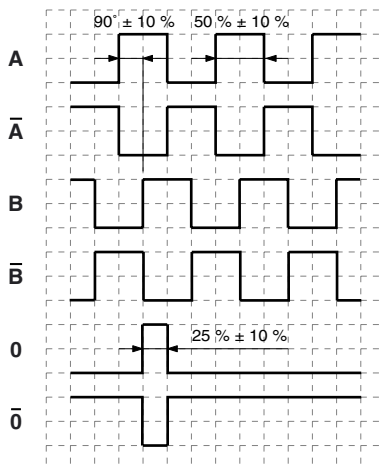


**Electrical connection**

Signal	Cable Ø7.8 mm, 12-core	Connector 9415, 7-pin	Connector 9419, 10-pin
GND	White	F	F
U <sub>b</sub>	Brown	D	D
A	Green	A	A
B	Grey	B	B
$\bar{A}$	Yellow	-	H
$\bar{B}$	Pink	-	I
0	Blue	C	C
$\bar{0}$	Red	-	J
U <sub>b</sub> Sens <sup>*)</sup>	Violet	-	-
NC	Grey/Pink	E	E
Case	Screen	G	G
GND Sens <sup>*)</sup>	Black	-	-
			

<sup>\*)</sup> only for devices with 5 V supply and RS 422 interface

**Signal outputs**



↺ ccw - with view onto the shaft

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**Accessories**

For type	Accessories	Name/defining feature	Order code
All	Mounting aids	Eccentric clamping elements	9310-3
	Connectors	Cable socket	9415, 7-pin
		Cable socket	9419, 10-pin

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

**Order code**

**R V I 2 5 Y - 0 6 D B F R 6 1 N - 0 1 0 0 0**

