



### Model Number

RV184

### Features

- Up to 25 ppr
- ATEX approval
- Intrinsically safe
- NAMUR interface in accordance with DIN EN 60947-5-6

### Description

Up to two intrinsically safe 2-wire NAMUR sensors are integrated in the incremental encoders of the series RV184. These devices are intrinsically safe in accordance with II 2 G Ex ia II T6.

One special feature is the mechanical versatility of the flange. The rotary encoder has a centering collar with a diameter of 42 mm and one with a diameter of 56 mm. In addition to the four M4 holes, the incremental rotary 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.

## Technical data

### General specifications

Pulse count max. 25

### Electrical specifications

Operating voltage  $U_B$  8 V DC

### Output

Output type NAMUR (SJ2-N)

Load current max. per channel 3 mA , short-circuit protected

Output frequency max. 5 kHz

### Connection

Cable  $\varnothing 6$  mm, 4 x 0.38 mm<sup>2</sup>, 2 m

### Standard conformity

Degree of protection DIN EN 60529, IP65

Shock resistance DIN EN 60068-2-27, 100 g, 3 ms

Vibration resistance DIN EN 60068-2-6, 10 g, 10 ... 2000 Hz

Standards EN 60947-5-2:2007 EN 60947-5-6:2000

### Ambient conditions

Operating temperature

Plastic disk -20 ... 60 °C (-4 ... 140 °F)

Storage temperature

Plastic disk -25 ... 85 °C (-13 ... 185 °F)

### Mechanical specifications

Material

Housing aluminum

Flange 3.1645 aluminum

Shaft Stainless steel 1.4305 / AISI 303

Mass approx. 630 g

Rotational speed max. 3000 min<sup>-1</sup>

Moment of inertia 100 gcm<sup>2</sup>

Starting torque < 5 Ncm

Shaft load

Axial 50 N

Radial 100 N

### Data for application in connection with

#### Ex-areas

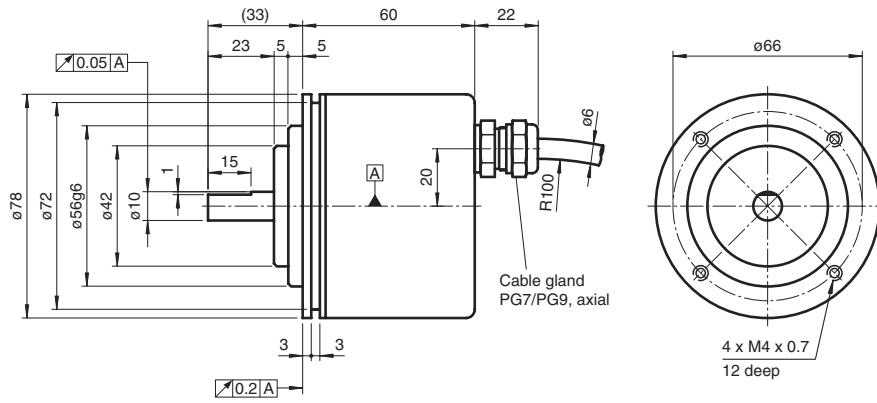
Statement of conformity PF13CERT2948 X

Directive conformity

Directive 94/9/EC EN 13463-1:2009 , EN 13463-5:2011 , EN 60079-0: 2009 , EN 60079-11:2007

Group, category, type of protection II 2G c Ex ia IIC T6 Gb

**Dimensions**

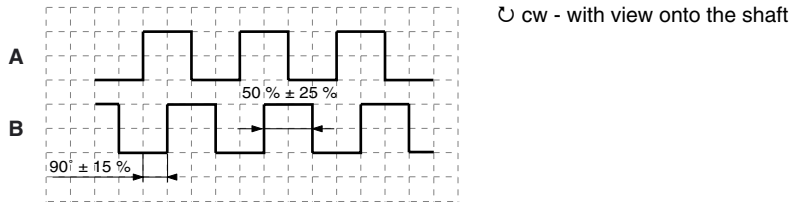


**Electrical connection**

Signal	Cable Ø6 mm, 4-core
A <sub>NAMUR+</sub>	Brown
A <sub>NAMUR-</sub>	Blue
B <sub>NAMUR+</sub>	White
B <sub>NAMUR-</sub>	Black

The circuits A and B are not connected and not grounded.

### Signal outputs



### Accessories

Accessories	Name/defining feature	Order code
Couplings	D1: Ø10 mm, D2: Ø10 mm	9401
	D1: Ø10 mm, D2: Ø10 mm	9404
	D1: Ø10 mm, D2: Ø10 mm	9409
	D1: Ø10 mm, D2: Ø10 mm	KW
Measurement wheels* with circumference of 500 mm	Plastic	9101, 10
	Pimpled rubber	9102, 10
	Knurled aluminium	9103, 10
	Knurled plastic	9112, 10
Measurement wheels* with circumference of 200 mm	Plastic	9108, 10
	Pimpled rubber	9109, 10
	Knurled aluminium	9110, 10
	Knurled plastic	9113, 10
Mounting aid	Eccentric clamping elements	9213-3

\* Avoid any electrostatic discharges of the encoder when using measurement wheels.

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

### Order code

**R V I 8 4 N - 1 0 C K 2 A 2 N N -**

- Pulse count** 1, 2, 5, 10, 20, 25
- Output switching**  
N NAMUR
- Signal output**  
2 A + B
- Exit position**  
A Axial
- Connection type**  
K2 Ø6 mm, 4 x 0.38 mm<sup>2</sup>, 2 m
- Flange version**  
C Clamping flange
- Shaft dimension**  
10 Shaft Ø10 mm x 23 mm

Release date: 2014-12-11 09:16 Date of issue: 2014-12-11 12:440\_eng.xml