



### Model Number

RVS58N-\*\*\*\*\*Z

### Features

- Industrial standard housing Ø58 mm
- 1024 or 2048 signal periods
- Servo or clamping flange
- Temperature compensated, interpolateable voltage signals

### Description

Compatibility says it all for this incremental rotary encoder.

The RVS58 provides sinusoidal / cosinusoidal signals at a resolution of up to 2.048 signal periods per revolution. All six output channels are fitted for this incremental rotary encoder. It can thus be used universally in many different applications.

Focussing on the designs that are most often required has allowed us to offer rapid availability at an attractive price.

This incremental rotary encoder is available either in clamping flange design with a shaft 10 mm in diameter x20 mm or in servo flange design with a shaft 6 mm in diameter x10 mm.

The electrical connection is made by a 12-pin round plug connector. It is also possible to obtain a version with a cable connector.

## Technical data

### General specifications

Detection type	photoelectric sampling
Pulse count	1024 and 2048

### Functional safety related parameters

MTTF <sub>d</sub>	1060 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>	5 V ± 5 %
No-load supply current I <sub>0</sub>	max. 70 mA

### Output

Output type	sine / cosine
Amplitude	1 V <sub>SS</sub> ± 10 %
Load current	max. per channel 20 mA , short-circuit protected, reverse polarity protected
Output frequency	max. 200 kHz (3 dB limit)

### Connection

Connector	type 9416 (M23), 12-pin, type 9416L (M23), 12-pin
Cable	Ø7.8 mm, 6 x 2 x 0.14 mm <sup>2</sup> , 1 m

### Standard conformity

Degree of protection	DIN EN 60529, IP65
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

### Ambient conditions

Operating temperature	-5 ... 80 °C (23 ... 176 °F) , movable cable -20 ... 80 °C (-4 ... 176 °F), fixed cable
Storage temperature	-40 ... 100 °C (-40 ... 212 °F)

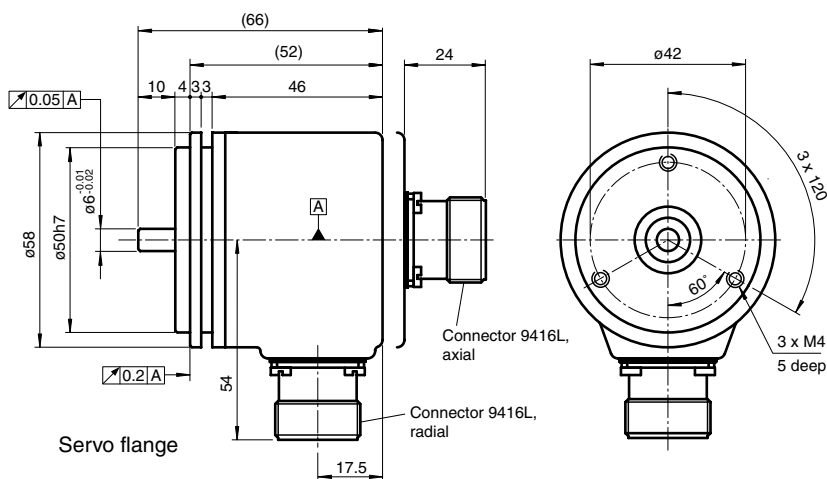
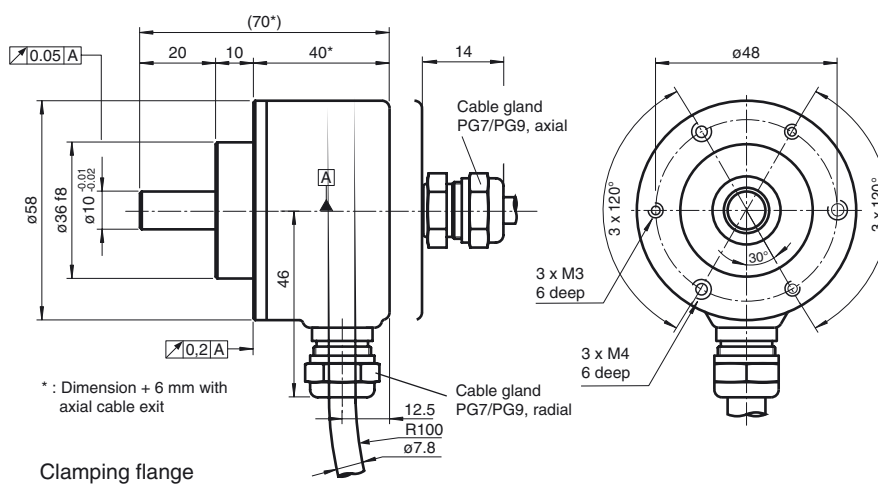
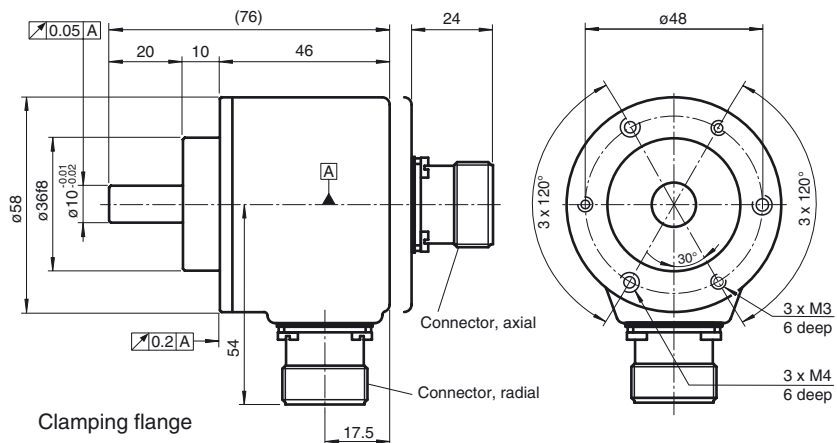
### Mechanical specifications

Material	
Housing	powder coated aluminum
Flange	aluminum
Shaft	Stainless steel
Mass	approx. 350 g
Rotational speed	max. 12000 min <sup>-1</sup>
Moment of inertia	≤ 25 gcm <sup>2</sup>
Starting torque	≤ 1.5 Ncm
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>

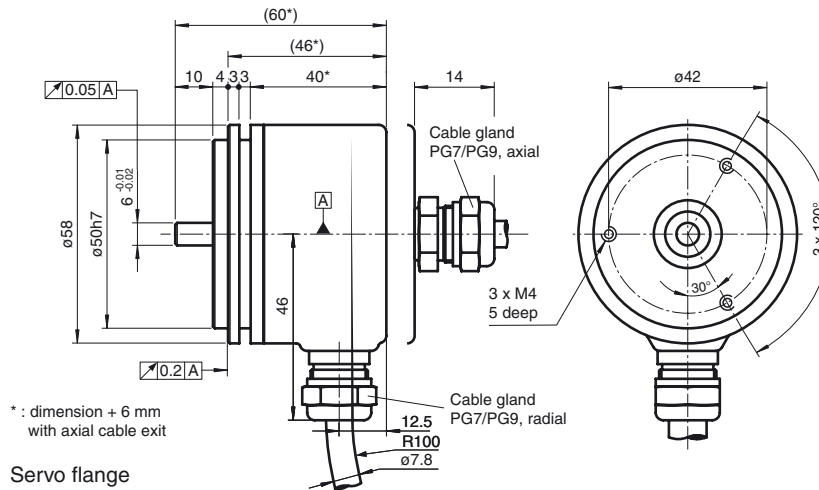
### Approvals and certificates

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



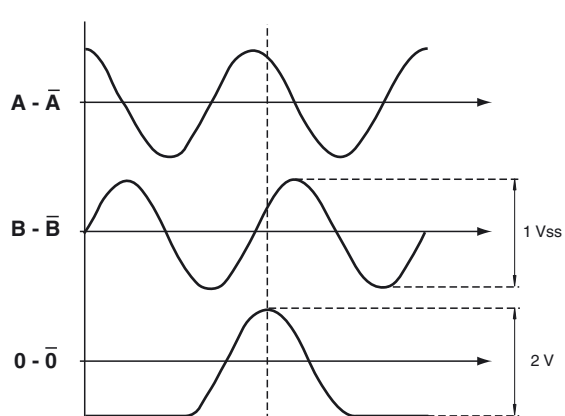
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**Electrical connection**

Signal	Cable	Connector 9416	Connector 9416L
GND	White	10	10
U <sub>b</sub>	Brown	12	12
A	Green	5	5
B	Grey	8	8
$\bar{A}$	Yellow	6	6
$\bar{B}$	Pink	1	1
0	Blue	3	3
$\bar{0}$	Red	4	4
U <sub>b</sub> Sens	Violet	2	2
NC	Grey/Pink	7	7
Screen	-	Housing	Housing
NC	-	9	9
GND Sens	Black	11	11

**Signal outputs**



↻ cw - flange view

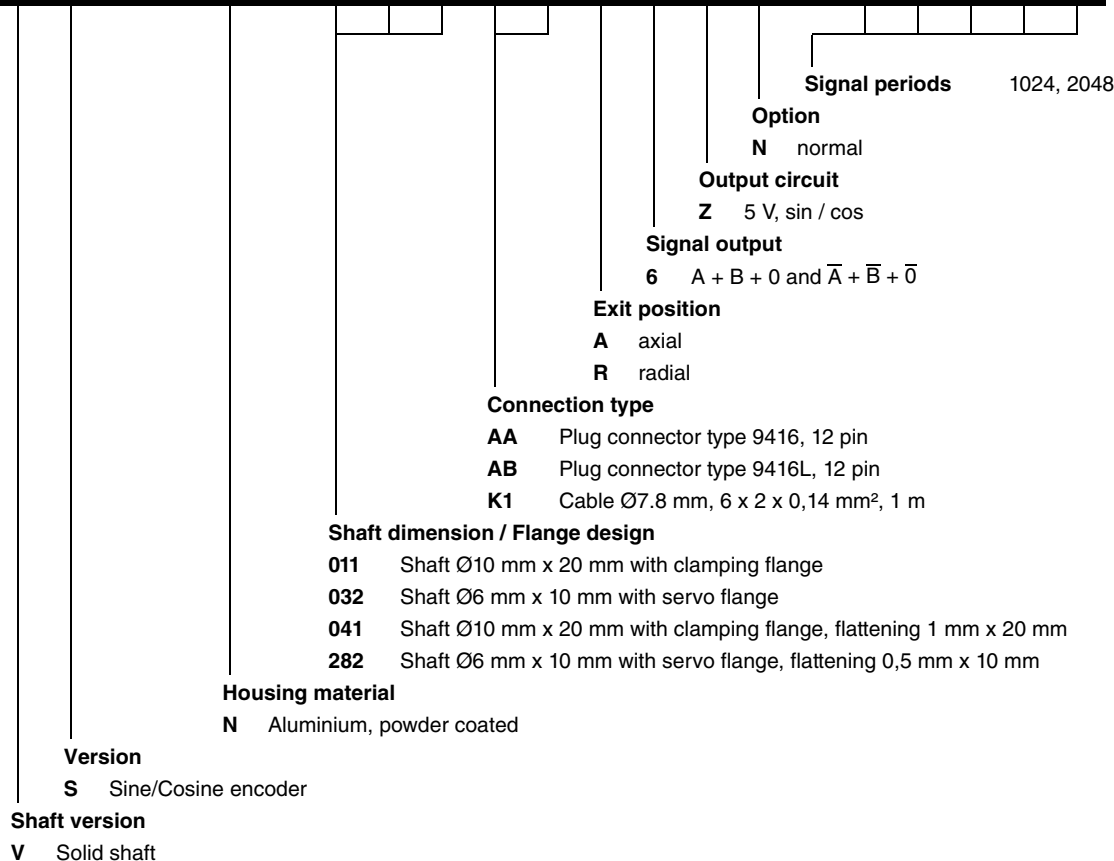
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Refer to "General Notes Relating to Pepperl+Fuchs Product Information".

Accessories

For type	Accessories	Name/defining feature	Order code
RVS58N-011	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 aids	Mounting bracket	9203
		Mounting bracket	9213
RVS58N-032	Couplings	D1: Ø6 mm, D2: Ø6 mm	9401
		D1: Ø6 mm, D2: Ø6 mm	9402
		D1: Ø6 mm, D2: Ø6 mm	9404
		D1: Ø6 mm, D2: Ø6 mm	9409
		D1: Ø6 mm, D2: Ø6 mm	KW
	Mounting aids	Mounting bracket and set	9300 and 9311-3
		Eccentric clamping elements	9310-3
All	Connector	Cable socket	9416L

Order code



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