



Model Number

RVI58N-*****1

Features

- Up to 50,000 ppr
- Extended temperature range
- Industrial standard housing Ø58 mm
- Servo or clamping flange
- 10 V ... 30 V with short-circuit proof push-pull output

Description

High performance are key words for this rotary encoder. The outstanding features of this encoder include a high angle resolution and an optional extended temperature range.

Usually all six output channels of this incremental rotary encoder are assigned to ensure flexible use of the encoder in a wide range of applications.

This incremental rotary encoder is available as a clamping flange version with a Ø10 mm x 20 mm shaft or a servo flange version with a Ø6 mm x 10 mm shaft.

The electrical connection is made via a 12-pin round connector. A version with a cable connection is also available.

Technical data

General specifications

Pulse count max. 50000

Functional safety related parameters

MTTF_d 140 a

Mission Time (T_M) 20 a

L_{10h} 70 E+9 at 6000 rpm

Diagnostic Coverage (DC) 0 %

Electrical specifications

Operating voltage U_B 10 ... 30 V DC

No-load supply current I₀ max. 60 mA

Output

Output type push-pull, incremental

Voltage drop U_d < 3 V

Load current max. per channel 40 mA , short-circuit protected, reverse polarity protected

Output frequency max. 200 kHz

Rise time 400 ns

Connection

Connector type 9416, 12-pin, type 9416L, 12-pin

Cable Ø7.8 mm, 6 x 2 x 0.14 mm², 1 m

Standard conformity

Protection degree DIN EN 60529, IP65

Climatic testing DIN EN 60068-2-78 , no moisture condensation

Emitted interference EN 61000-6-4:2007

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

-40 ... 80 °C (-40 ... 176 °F) with Option T , fixed cable

Storage temperature -40 ... 85 °C (-40 ... 185 °F)

Mechanical specifications

Material

Housing powder coated aluminum

Flange 3.1645 aluminum

Shaft Stainless steel 1.4305 / AISI 303

Mass approx. 350 g

Rotational speed max. 12000 min⁻¹

Moment of inertia ≤ 25 gcm²

Starting torque ≤ 1.5 Ncm

Shaft load

Axial 40 N at max. 6000 min⁻¹

10 N at max. 12000 min⁻¹

Radial 60 N at max. 6000 min⁻¹

20 N at max. 12000 min⁻¹

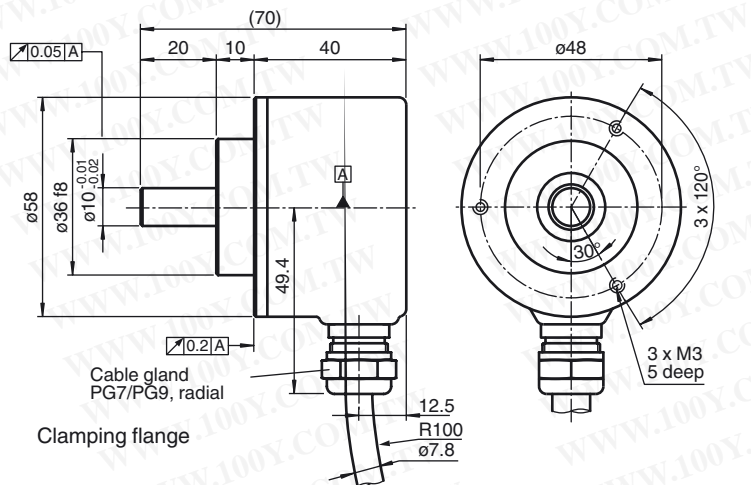
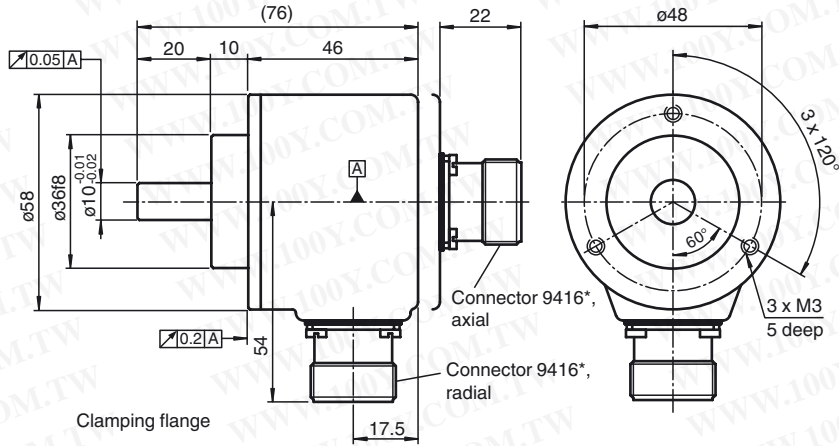
Approvals and certificates

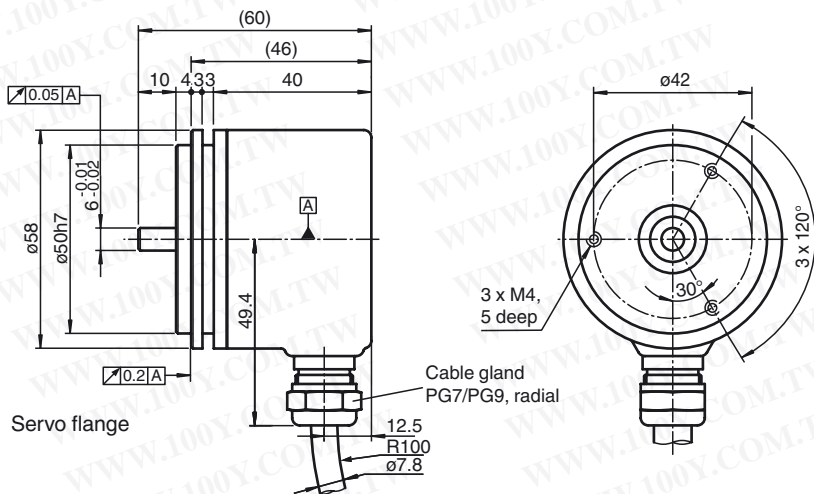
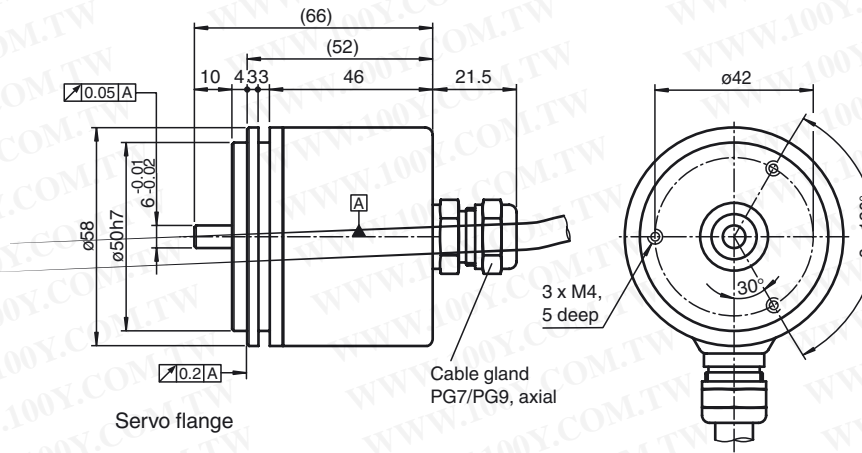
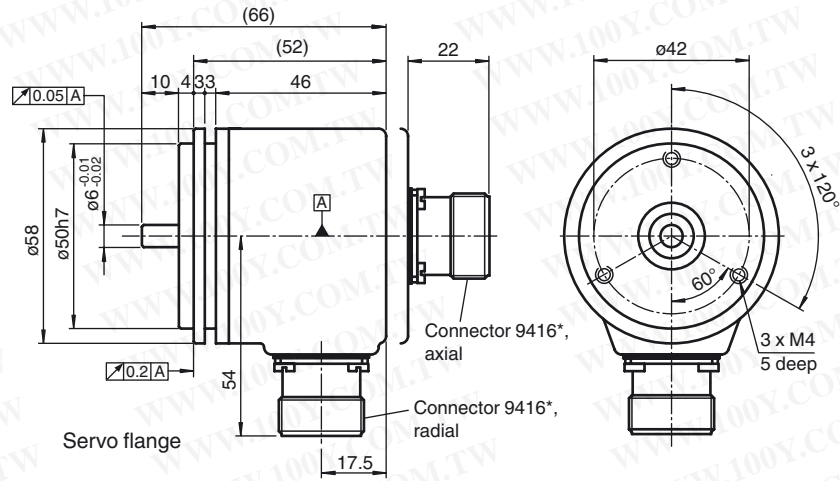
UL approval

cULus Listed, General Purpose, Class 2 Power Source

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 勝特力电子(上海) 86-21-34970699
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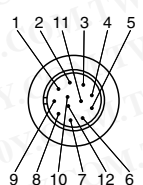
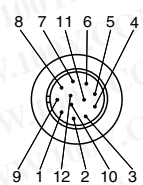
Dimensions





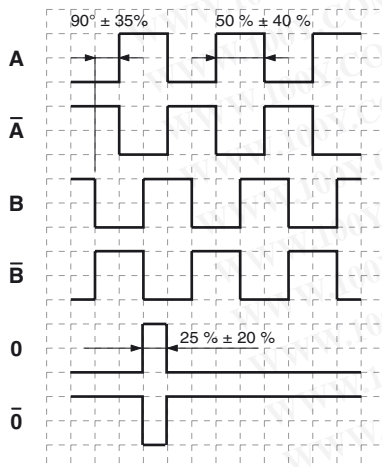
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Electrical connection

Signal	Cable	Connector 9416	Connector 9416L
GND	White	10	10
U _b	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 _b Sens *)	Violet	2	2
NC	Grey/Pink	7	7
Screen	-	Housing	Housing
NC	-	9	9
GND Sens *)	Black	11	11
			

*) only for devices with 5 V supply and RS 422 interface (output circuit 6)

Signal outputs



↻ cw - with view onto the shaft clamping ring

