# **RTD Converter**





This compact plug-in converter accepts a RTD input and provides optically isolated DC voltage or current outputs.

This converter has a linearizer and a burnout protection circuit as standard equipment which is required to measure temperature.

### Features

- ★ Fine Zero & span adjustment by 15 turn trimmer
- ★ Zero & span adjustment ±10% full scale
- $\star$  Safe design by dielectric strength of 3000Vac
- $\star$  5 years warranty, long life
- ★ CE approved
- ★ Linearizer and Burnout protection circuit built-in
- ★ High accuracy at 0.1% FS, Response time 25ms

# Ordering code

	WSP- RTS - C						
	Code	RTD	Manufacturable Range				
	Code		Temp. Range	Min. Span			
	F	Pt100Ω	-200 to +850°C	50°C or more			
	Р	JPt100Ω	-200 to +500°C	50°C or more			
	Ν	Ni508.4Ω	-50 to +200°C	30°C or more	_ ↓		
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	Measuring		
Code	Temperature	Accuracy	
	Range	, , , , , , , , , , , , , , , , , , , ,	
10	0 to 50°C	±0.2% FS	
11	0 to 100°C	±0.1% FS	
12	0 to 150°C	±0.1% FS	
13	0 to 200°C	±0.1% FS	
25	0 to 250°C	±0.1% FS	
30	0 to 300°C	±0.1% FS	
35	0 to 350°C	±0.1% FS	
40	0 to 400°C	±0.1% FS	
50	0 to 500°C	±0.1% FS	
60	0 to 600°C	±0.1% FS	
14	-20 to +80°C	±0.1% FS	
15	-50 to +50°C	±0.1% FS	
16	-50 to +100°C	±0.1% FS	
17	-100 to +100°C	±0.1% FS	
<b>18</b> -200 to +200°C		±0.1% FS	
99	Contact us for		
* 1	other than the above		

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Code	Power Supply			
Α	100 to 240Vac ±10% 50/60Hz			
D	24Vdc ±10%			
*2	10.8 to 30Vdc			
8	110Vdc ±10%			
Output		Allowable Load Resistance		

With Test report

**Test Report** 

Code

Χ

Т

None

Code	Output	Allowable Load	
0000	Output	Resistance	
Α	4 to 20mAdc	750 $\Omega$ or less	
В	1 to 5mAdc	3kΩ or less	
D	0 to 1mAdc	15kΩ or less	
Е	0 to 10mAdc	1.5kΩ or less	
G	0 to 20mAdc	750Ω or less	
Н	1 to 5Vdc 1kΩ or more		
J	0 to 10mVdc	10kΩ or more	
K	0 to 100mVdc	100kΩ or more	
L	0 to 1Vdc	200Ω or more	
Ν	0 to 5Vdc	1kΩ or more	
Р	0 to 10Vdc	2kΩ or more	
S	Contact us for other than the above		
3 *1	Current output 20mA or less		
<b>↑</b>	Voltage output 10V or less		

\*1···CE approval do not adapt input range code 99 and output range code S

\*2...CE approval do not adapt when power supply is 10.8Vdc to 30Vdc.

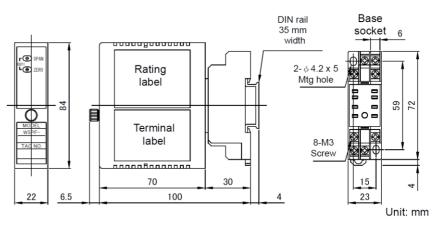
# **Specifications**

Acouracy	±0.1% FS (at 23°C)		
Accuracy Response time	Approx. 25ms ( 0 to 90%)		
Allowable load	Current output		
Allowable load	15V or less of voltage drop		
	5 i		
	Voltage output Load current 5mA or less		
Zana Olamana linatan ant	*1µA or less if the output is less than 1V FS		
Zero & span adjustment	±10% FS (15 turn trimmer)		
Operating temperature	-5 to +55°C		
Storage temperature range	-10 to +60°C		
Operating relative humidity	90% or less (Non-condensing)		
Temperature coefficient	±0.015% FS of span per °C		
Linearization	Available		
Burnout protection	Upscale (less than 1.5sec) *Please contact us for downscale		
Isolation	Between input, output, and power supply		
Insulation resistance	100M $\Omega$ or more with 500Vdc megger		
	Between input, output, and power supply terminal		
Dielectric strength	3000Vac for 1 min between power supply and input/output terminal,		
5	2000Vac for 1 min between input and output terminal		
Power consumption	Approx. 4.5VA (AC), Approx. 66mA (DC)		
Power supply variation	±0.1% FS (within the range of rated voltage)		
Dimensions	84(H) X 23(W) X 106.5(D)mm		
Weight	Approx. 130g		
Structure	Plug-in (Body part and socket part)		
Connection	M3 SEMS screw part of the base socket (Tightening torque 0.6N·m)		
Mounting	DIN rail or wall surface		
Case color and material	Ivory, ABS resin, flame retardant grade UL94V-0		
EMC directive	EN61326-1, EN61010-1, EN IEC 63000		
	Installation category : II, Pollution degree : 2		
Rated altitude	2000m or less		

## **Terminal connections**

	No	Symbol		Description
	1 4 5	INPUT	A B B	Input
	8	NC		No connection
	9 12	OUTPUT-1	+	Output
	13 14	POWER	U(+) V(-)	Power Supply
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### Demensions



\* Specification is subject to change without notice

#### Watanabe Electric Industry Co. Ltd.