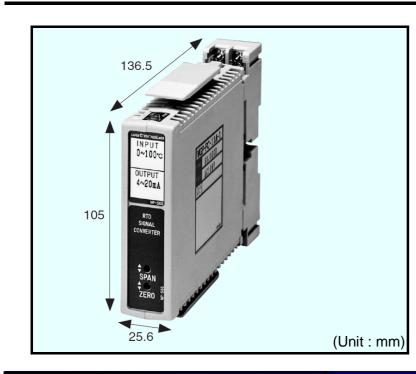
# **RTD Converter**



This slim-type plug-in converter accepts a RTD input and provides optically isolated DC voltage or current outputs. It amplifies and converts the selected RTD input to the selected DC output. This converter has a linearizer, a cold junction compensating circuit, and a burnout protection circuit as standard equipment which is required to measure temperature. This is used together with a platinum resistance temperature detector (Pt100  $\Omega$  / JPt100  $\Omega$ ).

#### Features

- ★ Circuit method is less affective to the length and width of the lead wire
- ★ Linearizer, Cold junction compensating circuit, and Burnout protection circuit built-in
- $\star$  Both AC and DC power supply are available
- $\star$  Accuracy at 0.2% FS, Response time 25ms
- $\star$  Easy maintenance by plug-in structure

#### **Ordering code**

ordering code												
			WGP-	- [		- 🗌						
<b>↓</b>										<b></b>		
Code	Element	Input RTD	Isolation	Response						Cod		
				time						1	80 to 132Vac 50/60	
PLS	For Platinum Resistance	Pt100Ω	Non-isolated	25ms (0 to 90%)						<u> </u>	Rated voltage : 100	
										2	Rated voltage : 200	
		Pt100Ω	Isolated							3	24Vdc ±10%	102401 1070
										7	48Vdc ±10%	
		JPt100Ω	Isolated							8	110Vdc ±10%	
PC								<b>↓</b>		*Code	e 7 has discontinued	
					Code	Temperature		Code			Allowable Load	
					Range	ŀ	<u>A</u>	4 to 20mAdc		50Ω or less		
				10	0 to 50°C	ŀ	B	1 to 5mAdc		kΩ or less		
					11	0 to 100°C	ļ	C	1 to 10mAdc		.5kΩ or less	
					12	0 to 150°C	ļ	D	0 to 1mAdc		5kΩ or less	
					13	0 to 200°C	ļ	E	0 to 10mAdc		.5kΩ or less	
					25	0 to 250°C		F	0 to 16mAdc		37Ω or less	
					30	0 to 300°C		G	0 to 20mAdc		50Ω or less	
					35	0 to 350°C		Н	1 to 5Vdc		.5kΩ or more	
					40	0 to 400°C		J	0 to 10mVdc	1	0kΩ or more	
					50	0 to 500°C		Κ	0 to 100mVdc	1	00kΩ or more	
🛧 Manugaaturahla Danga					60	0 to 600°C		L	0 to 1Vdc	5	00Ω or more	
★ Manugacturable Range					14	-20 to +80°C	ſ	Ν	0 to 5Vdc	2	.5kΩ or more	
Manufacturable Range					15	-50 to +50°C	ľ	Р	0 to 10Vdc	5	kΩ or more	
Input RTD Temp. Range Min. Span					16	-50 to +100°C	ľ		Contact us for	other	than the above	
Pt100Ω -200 to +850°C 50°C or more					17	-100 to +100°C		S	Current outpu	Current output 20mA or less		
JPt100Ω -200 to +500°C 50°C or more					18	-200 to +200°C			Voltage output 10V or less			
	1					Contact us for	L					
					99							

other than the above

## Specifications

### **Terminal connections**

Input signal	Three-wire resistance temperature detector			
	Pt100 Ω (JIS'97)			
Output signal	DC current/voltage			
Accuracy	±0.2% FS (at 23°C)			
Response time	Approx. 25ms ( 0 to 90%)			
Allowable load resistance	Current output			
	15V or less of voltage drop			
	Voltage output			
	Load current 5mA or less			
	For 1V FS or less of output the current is 1µA or less			
Zero & span adjustment	±10% FS (3 turn trimmer)			
Operating temperature	-5 to +55°C			
Operating relative humidity	90% or less (non-condensing)			
Temperature coefficient	±0.015% FS of span per °C			
Linearization	Available			
Burnout protection	Upscale			
Isolation	Between input, output, and power supply (Isolated type)			
	Between input/output, and power supply (Non-isolated type)			
Insulation resistance	100MΩ or more with a 500Vdc megger			
	Between input, output, and power supply terminal			
Dielectric strength	2000Vac for 1 minute			
Power consumption	Approx. 5VA (AC), Approx. 100mA (24Vdc)			
Power supply variation	±0.1% FS (within the range of rated voltage)			
Dimensions	105(H) X 25.6(W) X 136.5(D)mm			
Weight	Approx. 200g			
Structure	Plug-in			
Connection	M3.5 SEMS screw part of the base socket			
Material of terminal screw	Chromated iron			
Case color and material	Ivory, heat-resistant ABS resin(94V-0)			
Mounting	DIN rail or wall surface			

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No	Signal	Description				
1	INPUT(A)					
2	INPUT(B)	Input				
3	INPUT(B)					
4	NC	No connection				
5	OUTPUT(+)	Output				
6	OUTPUT(-)	Output				
7	POWER U(+)	Power Supply				
8	POWER V(-)					

\* Specification is subject to change without notice

## Watanabe Electric Industry Co., Ltd.