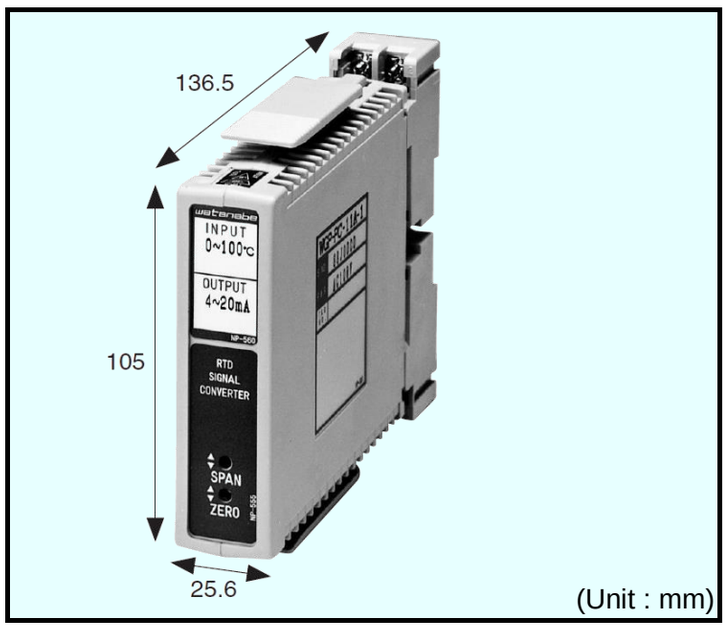
RTD Converter

WGP-PAD / PCS / PC



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 Ω / JPt100 Ω

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
★ Both AC and DC power supply are available
★ Accuracy at 0.2% FS, Response time 25ms
★ Easy maintenance by plug-in structure

Ordering code

WGP- □□□ - □□ □ - □

Code	Element	Input RTD	Isolation	Response time
PAD	For Platinum Resistance	Pt100Ω	Non-isolated	25ms (0 to 90%)
PCS		Pt100Ω	Isolated	
PC		JPt100Ω	Isolated	

Code	Temperature Range
10	0 to 50°C
11	0 to 100°C
12	0 to 150°C
13	0 to 200°C
25	0 to 250°C
30	0 to 300°C
35	0 to 350°C
40	0 to 400°C
50	0 to 500°C
60	0 to 600°C
14	-20 to +80°C
15	-50 to +50°C
16	-50 to +100°C
17	-100 to +100°C
18	-200 to +200°C
99	Contact us for other than the above

Code	Output	Allowable Load
A	4 to 20mAdc	750Ω or less
B	1 to 5mAdc	3kΩ or less
C	1 to 10mAdc	1.5kΩ or less
D	0 to 1mAdc	15kΩ or less
E	0 to 10mAdc	1.5kΩ or less
F	0 to 16mAdc	937Ω or less
G	0 to 20mAdc	750Ω or less
H	1 to 5Vdc	2.5kΩ or more
J	0 to 10mVdc	10kΩ or more
K	0 to 100mVdc	100kΩ or more
L	0 to 1Vdc	500Ω or more
N	0 to 5Vdc	2.5kΩ or more
P	0 to 10Vdc	5kΩ or more
S	Contact us for other than the above Current output 20mA or less Voltage output 10V or less	

Code	Power Supply
1	80 to 132Vac 50/60Hz Rated voltage : 100 to 120V ±10%
2	170 to 264Vac 50/60Hz Rated voltage : 200 to 240V ±10%
3	24Vdc ±10%
7	48Vdc ±10%
8	110Vdc ±10%

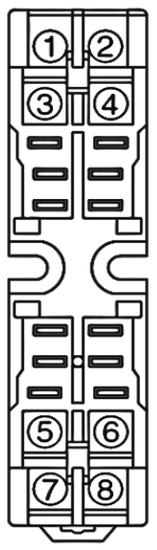
★ Manugacturable Range

Input RTD	Manufacturable Range	
	Temp. Range	Min. Span
Pt100Ω	-200 to +850°C	50°C or more
JPt100Ω	-200 to +500°C	50°C or more

Specifications

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

Terminal connections



No	Signal	Description
1	INPUT(A)	Input
2	INPUT(B)	
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