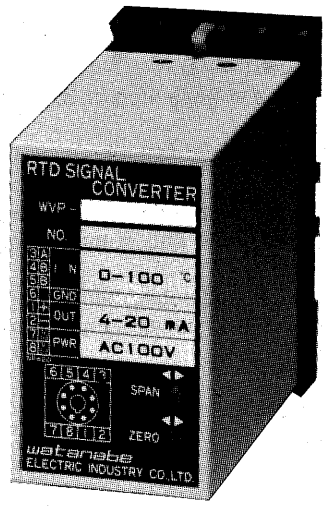
RTD SIGNAL CONVERTER (FOR NICKEL RESISTANCE TEMPERATURE SENSORS) WVP- NC



50 (W) x 96 (H) x 125.5 (D) mm Approx. 400 g

This plug-in temperature signal converter is employed in combination with a nickel resistance temperature sensor. It is a high-performance converter that comes standard with a linearizer and a burnout circuit, and adopts circuitry that is hardly affected by conductor resistance. In addition, this unit can be equipped with a built-in photocoupler-type isolator.

Features

- Eliminates measuring errors produced due to cabling length and cable thickness.
- Equipped with a burnout circuit capable of immediately detecting wire breakage in the sensor.
- Comes with a built-in linearizer that compensates for non-linearity of the sensor output.
- Its input, output and power supply can be isolated from each other.
- Plug-in design enables mounting on DIN rails or direct installation.

Model WVP-□□-□□□-□

	For nickel resistance sensor		
NC	508, 4 Ω at 0°C	Isolated	Response time 25 msec/(0–90%)

	Power Supply
1	AC 100 V ± 10%, 50/60 Hz
2	AC 200 V ± 10%, 50/60 Hz
3	DC 24 V ± 10%
4	AC 110 V ± 10%, 50/60 Hz
5	AC 220 V ± 10%, 50/60 Hz

	Measuring Temperature Range
10	0–+50°C
11	0–+100°C
12	0–+150°C
13	0–+200°C
14	-20–80°C
15	-50–+100°C
16	-50–+100°C
17	-100–+100°C
99	Other than the above (Please consult with us.)

	Output Signal	
		Allowable Load Resistance
A	DC 4–20 mA	750 Ω or less
B	DC 1–5 mA	3 KΩ or less
C	DC 2–10 mA	1.5 KΩ or less
D	DC 0–1 mA	15 KΩ or less
E	DC 0–10 mA	1.5 KΩ or less
F	DC 0–16 mA	937 Ω or less
G	DC 0–20 mA	750 Ω or less
H	DC 1–5 V	2.5 KΩ or more
J	DC 0–10 mV	10 KΩ or more
K	DC 0–100 mV	100 KΩ or more
L	DC 0–1 V	500 Ω or more
N	DC 0–5 V	2.5 KΩ or more
P	DC 0–10 V	5 KΩ or more
S	Other than the above (Please consult with us.): Voltage output 10 V or less Current output 20 mA or less	

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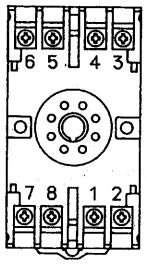
Specification

Input:	Nickel 508.4 Ω at 0°C, 3-wire type (span 50 deg or more) Allowable conductor resistance: 200 Ω or less per conductor The two-wire-type requires zero adjustment.
Prescribed sensor current:	2 mA
Output signal:	DC voltage, DC current
Accuracy:	±0.2%·fs (at 23°C)
Allowable load resistance:	For voltage output, use the converter with a load current of 2 mA or less (1 μA or less for an output below 1 V·fs). For current output, use the converter with a voltage drop of 15 V or less between output terminals.
Operating temperature and humidity:	-5 to +55°C, 90% RH or less (without condensation)
Influence of ambient temperature:	±0.2%·fs/10°C
Insulation resistance:	100 MΩ or more with a 500 VDC megger between the input/output terminal and power supply terminal, and between the input and output terminals (isolated type)
Dielectric strength:	2,000 VAC for 1 minute between the input and output terminals (isolated type), and between the input/output terminal and power supply terminal
Power consumption:	Approx. 4 VA (AC), Approx. 120 mA (DC)
Standard equipment:	Linearizer Burnout circuit (full upward deflection)
Zero & span adjustment:	±20%·fs each (multi-turn trimmer)

Isolation

The electric isolation between the input side and the output side in the measurement of low-level signals serves to prevent the loop-back of signals in the circuit and the infiltration of external noise, thereby ensuring highly reliable measurements. Moreover, it helps ensure the safety of the operator. This converter unit adopts the photocoupler insulation method, which provides excellent linearity and temperature characteristics.

Explanation of Terminals



No.	Symbol		Description
1	OUTPUT	+	Output signal
2		-	
3	INPUT	A	Input signal
4		B	
5		B	
6			N.C.
7	POWER	U (+)	Power supply
8		V (-)	

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