

RTD Temperature Transmitter

NPWD-C1.RTD

Single input, single output

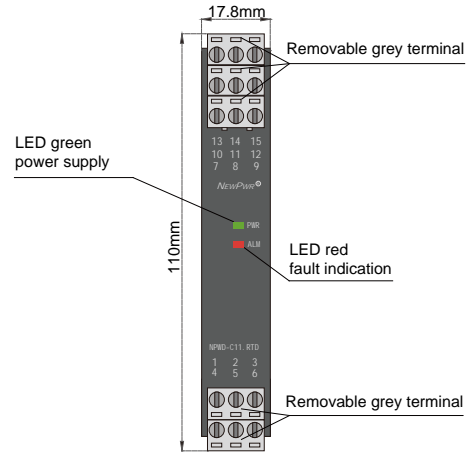
NPWD-C11.RTD

Single input, dual output

Input: RTD

Output: 4 ~ 20 mA

This temperature transmitter converts the thermal resistance signals to current signals. It needs an independent power supply. The input, output, and power supply are galvanically isolated from each other. Modify parameters by using PC or a handheld programmer.



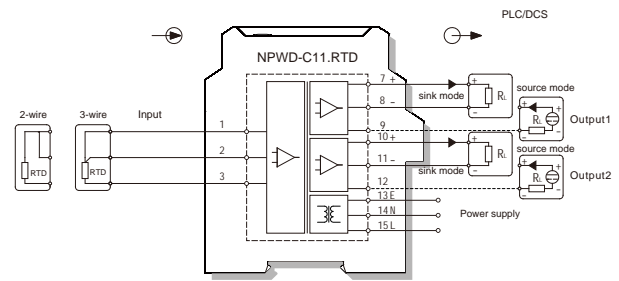
Parameters

- Power supply: 85 V AC ~ 265 V AC (90 V DC ~ 360 V DC)
- Power dissipation: ≤ 0.8 W (220 V AC, single output full-load)
 ≤ 2.5 W (220 V AC, double output full-load)
- Input signal: Pt100, Cu100, Cu50, BA1, BA2, etc
- Line resistance: ≤ 20 Ω per line (RTD)
- Output signal: 4 ~ 20mA (sink/source)
- Load resistance: source: $R_L \leq 550\Omega$ sink: $R_L < [(U-3)/0.02]\Omega$;
U: Loop power supply
- Temperature drift: 30 ppm/ $^{\circ}$ C
- Response time: ≤ 500 ms
- Electromagnetic compatibility: IEC 61326-3-1
- Dielectric strength: ≥ 1500 V AC (Input/Output/Power supply)
- Insulation resistance: ≥ 100 M Ω (Input/Output/Power supply)
- Operation temperature: -20 $^{\circ}$ C ~ +60 $^{\circ}$ C
- Storage temperature: -40 $^{\circ}$ C ~ +80 $^{\circ}$ C
- Dimension: 17.8 mm (W) \times 110 mm (H) \times 117 mm (D)
- Output states: Whatever input fault status (except breakage), the output follows the input within measuring range. And the maximum value would not exceed the 110% of the upper limit of the measuring range (e.g. When the output signal type is 0 ~ 20 mA, the minimum output value may be 0 mA, the maximum output value would not exceed 22 mA)

Range and Conversion accuracy list

Type	Range	Min.span/Accuracy	
PT100	-200 $^{\circ}$ C ~ +850 $^{\circ}$ C	< 100 $^{\circ}$ C, $\pm 0.1^{\circ}$ C	$\geq 100^{\circ}$ C, $\pm 0.1\%$ F.S.
Cu50	-50 $^{\circ}$ C ~ +150 $^{\circ}$ C	< 100 $^{\circ}$ C, $\pm 0.1^{\circ}$ C	$\geq 100^{\circ}$ C, $\pm 0.1\%$ F.S.
Cu100	-50 $^{\circ}$ C ~ +150 $^{\circ}$ C	< 100 $^{\circ}$ C, $\pm 0.1^{\circ}$ C	$\geq 100^{\circ}$ C, $\pm 0.1\%$ F.S.

Wiring diagram



Model rules

NPWD-C--.RTD

The second output signal^{note1}

Default: null

The first output signal^{note1}

note1 : output signal

Number	Output signal
1	4 ~ 20 mA
2	1 ~ 5 V
3	0 ~ 10 mA
4	0 ~ 5 V
5	0 ~ 10 V
6	0 ~ 20 mA