

## NPWD-C1.TC

Single input, single output

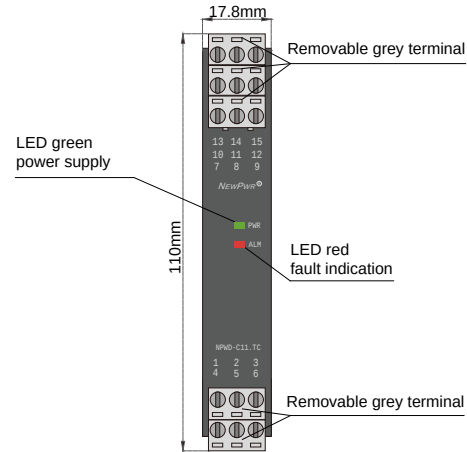
## NPWD-C11.TC

Single input, dual output

Input: TC

Output: 4 ~ 20 mA

This temperature transmitter converts the thermocouple 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.



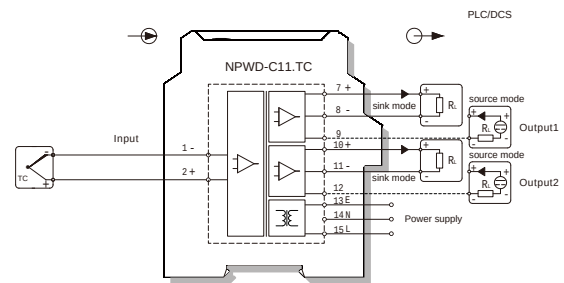
## Parameters

|                                |                                                                                                                                                                                                                                                                                                                                      |
|--------------------------------|--------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------------|
| Power supply:                  | 85 V AC ~ 265 V AC (90 V DC ~ 360 V DC )                                                                                                                                                                                                                                                                                             |
| Power dissipation:             | ≤ 0.8 W (220V AC, single output full-load)<br>≤ 2.5 W (220V AC, double output full-load)                                                                                                                                                                                                                                             |
| Input signal:                  | K, E, S, B, J, T, R, N, etc                                                                                                                                                                                                                                                                                                          |
| Line resistance:               | ≤ 20 Ω per line (RTD)                                                                                                                                                                                                                                                                                                                |
| Output signal:                 | 4 ~ 20mA (sink/source)                                                                                                                                                                                                                                                                                                               |
| Load resistance:               | source: $R_L \leq 550\Omega$ sink: $R_L < [(U-3)/0.02]\Omega$ ;<br>U: Loop power supply                                                                                                                                                                                                                                              |
| Compensation accuracy:         | 1 °C (Temperature compensation range:<br>-20 °C ~ +60 °C)                                                                                                                                                                                                                                                                            |
| Temperature drift:             | 30 ppm/°C                                                                                                                                                                                                                                                                                                                            |
| Response time:                 | ≤ 500 ms                                                                                                                                                                                                                                                                                                                             |
| Electromagnetic compatibility: | IEC 61326-3-1                                                                                                                                                                                                                                                                                                                        |
| Dielectric strength:           | ≥ 1500 V AC (Input/Output/Power supply)                                                                                                                                                                                                                                                                                              |
| Insulation resistance:         | ≥ 100 MΩ (Input/Output/Power supply)                                                                                                                                                                                                                                                                                                 |
| Operation temperature:         | -20 °C ~ +60 °C                                                                                                                                                                                                                                                                                                                      |
| Storage temperature:           | -40 °C ~ +80 °C                                                                                                                                                                                                                                                                                                                      |
| Dimension:                     | 17.8 mm (W) × 110 mm (H) × 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 |                     |
|------|------------------|-------------------|---------------------|
| K    | -200°C ~ +1372°C | < 300°C, ±0.3°C   | ≥ 300°C, ±0.1% F.S. |
| E    | -100°C ~ +1000°C | < 300°C, ±0.3°C   | ≥ 300°C, ±0.1% F.S. |
| J    | -100°C ~ +1200°C | < 300°C, ±0.3°C   | ≥ 300°C, ±0.1% F.S. |
| N    | -200°C ~ +1300°C | < 300°C, ±0.3°C   | ≥ 300°C, ±0.1% F.S. |
| S    | -50°C ~ +1768°C  | < 500°C, ±0.5°C   | ≥ 500°C, ±0.1% F.S. |
| R    | -50°C ~ +1768°C  | < 500°C, ±0.5°C   | ≥ 500°C, ±0.1% F.S. |
| T    | -20°C ~ +400°C   | < 300°C, ±0.3°C   | ≥ 300°C, ±0.1% F.S. |
| B    | +400°C ~ +1820°C | < 500°C, ±0.5°C   | ≥ 500°C, ±0.1% F.S. |

## Wiring diagram



## Model rules

NPWD-C $\square$  $\square$ .TC

The second output signal<sup>note1</sup>  
Default: null  
The first output signal<sup>note1</sup>

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     |