

## NPWD-CD11D

Double inputs, double outputs

Input: TC, RTD  
Output: 4 ~ 20 mA

This temperature transmitter converts the thermocouple or thermal resistance signals to 4~20mA signals. It has external cold junction compensation terminals. It needs an independent power supply. The input, output, and power supply are galvanically isolated from each other. The self-test function is also available on this device. Calibrate the apparatus or modify parameters by using a handheld programmer.

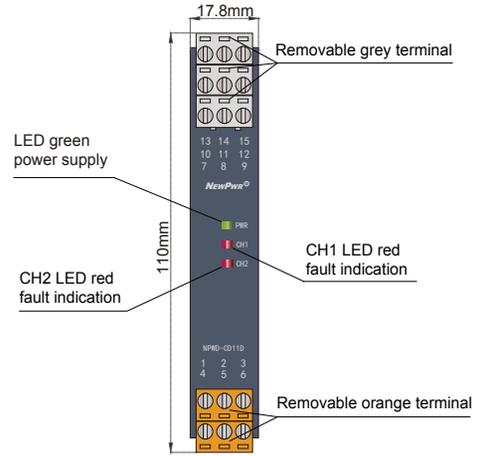
### Parameters

Power supply:	18 V DC ~ 60 V DC (Reverse power protection)
Power dissipation:	1.2 W
Input signal:	TC, RTD
	$\leq 20 \Omega$ per line (RTD)
Line resistance:	4 ~ 20mA (sink/source)
Output signal:	source: $R_L \leq 550 \Omega$ sink: $R_L < [(U-3)/0.02] \Omega$ ;
Load resistance:	U: Loop power supply
Compensation accuracy:	1 °C (Temperature compensation range: -20 °C ~ +60 °C)
Temperature drift:	30 ppm/°C
Response time:	$\leq 500$ ms
Electromagnetic compatibility:	IEC 61326-3-1
Dielectric strength:	$\geq 1500$ V AC (Input/Output/Power supply)
Insulation resistance:	$\geq 100$ M $\Omega$ (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:	Default following mode, it can be configured as 4mA~20mA NE43 mode or fixed output mode.

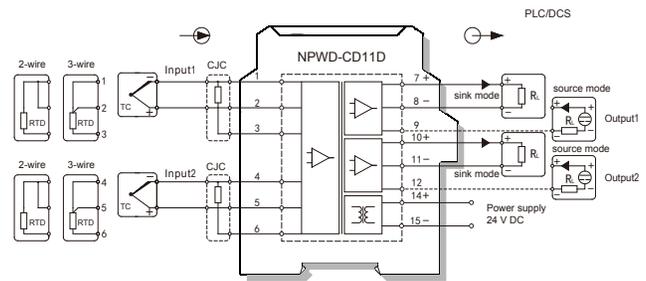
Conversion accuracy list (25°C±2°C, without Cold junction compensation)

Standards	Type	Range	Min.span/Accuracy
IEC 60584-1	K	-200~1372°C	<300°C, ±0.3°C; ≥300°C, ±0.1% F.S.
	E	-120~1000°C	<300°C, ±0.3°C; ≥300°C, ±0.1% F.S.
	J	-140~1200°C	<300°C, ±0.3°C; ≥300°C, ±0.1% F.S.
	T	-270~400°C	<300°C, ±0.3°C; ≥300°C, ±0.1% F.S.
	N	-200~1300°C	<300°C, ±0.3°C; ≥300°C, ±0.1% F.S.
	S	-50~1768°C	<500°C, ±0.5°C; ≥500°C, ±0.1% F.S.
	R	-50~1768°C	<500°C, ±0.5°C; ≥500°C, ±0.1% F.S.
	B	400~1820°C	<500°C, ±0.5°C; ≥500°C, ±0.1% F.S.
ASTM E988-96	W5Re-W26Re	0~2315°C	<500°C, ±0.5°C; ≥500°C, ±0.1% F.S.
	W3Re-W25Re	0~2315°C	<500°C, ±0.5°C; ≥500°C, ±0.1% F.S.
GOST R8.585	L	-100~800°C	<300°C, ±0.3°C; ≥300°C, ±0.1% F.S.
IEC 60751	Pt100( $\alpha=0.00385$ )	-200~850°C	<100°C, ±0.1°C; ≥100°C, ±0.1% F.S.
	Pt100( $\alpha=0.00391$ )	-200~850°C	<100°C, ±0.1°C; ≥100°C, ±0.1% F.S.
	Cu50( $\alpha=0.00428$ )	-180~200°C	<100°C, ±0.1°C; ≥100°C, ±0.1% F.S.
	Cu100( $\alpha=0.00428$ )	-180~200°C	<100°C, ±0.1°C; ≥100°C, ±0.1% F.S.
	Cu50( $\alpha=0.00426$ )	-50~200°C	<100°C, ±0.1°C; ≥100°C, ±0.1% F.S.
GOST 6651	Cu100( $\alpha=0.00426$ )	-50~200°C	<100°C, ±0.1°C; ≥100°C, ±0.1% F.S.
	Cu100( $\alpha=0.00426$ )	-50~200°C	<100°C, ±0.1°C; ≥100°C, ±0.1% F.S.

Note: Other sensor input types can be ordered.



### Wiring diagram



### Model rules

NPWD-CD   D

PB: BUS powered  
 Default: Terminals powered  
 The second output signal<sup>note1</sup>  
 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