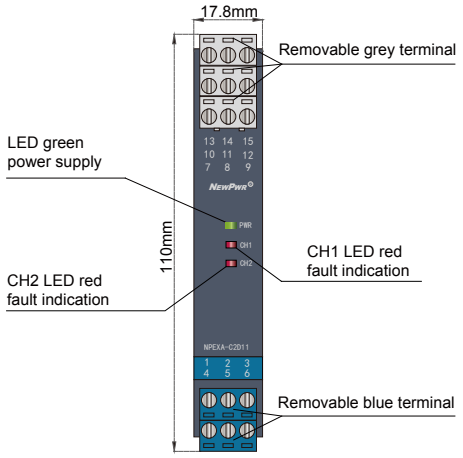
RTD

NPEXA-C2D11

Double inputs, double outputs

Input: RTD
Output: 4 ~ 20 mA

Temperature input isolated barrier, it converts the thermal resistance signals from a hazardous area into 4~20mA signals to a safe area by isolation. 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

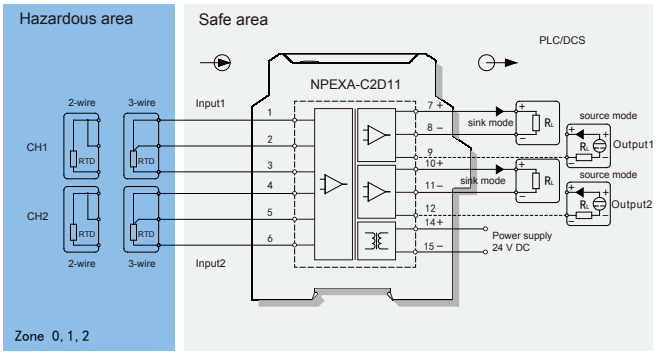
Power supply:	18V DC ~ 60V DC (Reverse power protection)
Power dissipation:	1.2W
Input signal:	RTD
Line resistance:	≤ 20Ω per line (RTD)
Output signal:	4 ~ 20mA (sink/source)
Load resistance:	source: RL ≤ 550Ω sink: RL < [(U-3)/0.02]Ω; U: Loop power supply
Temperature drift:	30ppm/°C
Response time:	≤ 500ms
Electromagnetic compatibility:	IEC 61326-3-1
Dielectric strength:	≥ 3000V AC (intrinsically safe side / non-intrinsically safe side) ≥ 1500V AC (Power supply /non-intrinsically safe side)
Insulation resistance:	≥ 100MΩ (Input /Output/Power supply)
Operation temperature:	-20°C ~ +60°C
Storage temperature:	-40°C ~ +80°C
Dimension:	17.8mm (W) × 110mm (H) × 117mm (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)

Standards	Type	Range	Min.span/Accuracy
IEC 60751	Pt100(α=0.00385)	-200~850°C	<100°C, ±0.1°C; ≥100°C, ±0.1% F.S.
	Pt100(α=0.00391)	-200~850°C	<100°C, ±0.1°C; ≥100°C, ±0.1% F.S.
	Cu50(α=0.00428)	-180~200°C	<100°C, ±0.1°C; ≥100°C, ±0.1% F.S.
GOST 6651	Cu100(α=0.00428)	-180~200°C	<100°C, ±0.1°C; ≥100°C, ±0.1% F.S.
	Cu50(α=0.00426)	-50~200°C	<100°C, ±0.1°C; ≥100°C, ±0.1% F.S.
	Cu100(α=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



Explosive-proof parameters

National Supervision and Inspection Center for Explosion Protection and Safety of Instrumentation (NEPSI)
Ex marking: [Ex ia Ga] ⅡC
[Ex ia Da] ⅢC

Um: 250V
Certified parameters (Terminals 1, 2, 3; 4, 5, 6):
Uo=8.7V, Io=33mA, Po=72mW
ⅡC: Co=5μF, Lo=28mH
ⅢC(ⅡB): Co=49μF, Lo=84mH

Model rules

NPEXA-C2D☒☒☒

- PB: BUS powered
  Default: Terminals powered
- The second output signal[note1]
- The first output signal[note1]

note1: output signal

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