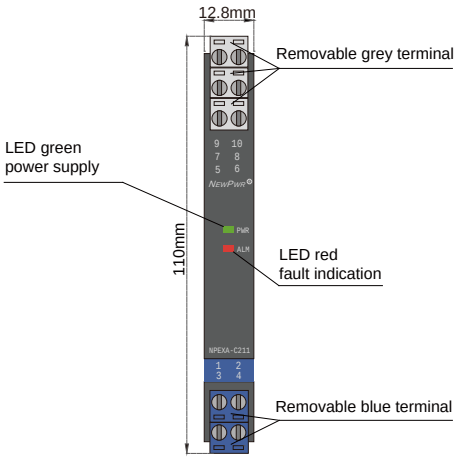
NPEXA-C21 Single input, single output

NPEXA-C211 Single input, 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.



RTD

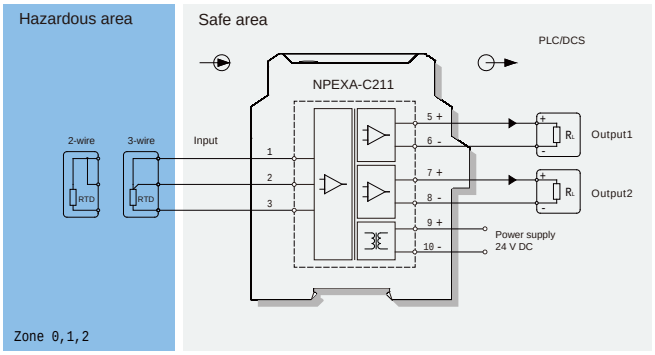
Parameters

Power supply:	18V DC ~ 60V DC (Reverse power protection)
Power dissipation:	0.8W (single output) 1.2W (double outputs)
Input signal:	Pt100, Cu100, Cu50, BA1, BA2, etc.
Line resistance:	≤ 20Ω per line (RTD)
Output signal:	4 ~ 20mA
Load resistance:	RL ≤ 550Ω
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:	12.8mm (W) × 110mm (H) × 117mm (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 ~ 20mA, the minimum output value may be 0mA, the maximum output value would not exceed 22mA)

Range and Conversion accuracy list

Type	Range	Min.span/Accuracy	
PT100	-200°C ~ +850°C	< 100°C, ±0.1°C	≥ 100°C, ±0.1% F.S.
Cu50	-50°C ~ +150°C	< 100°C, ±0.1°C	≥ 100°C, ±0.1% F.S.
Cu100	-50°C ~ +150°C	< 100°C, ±0.1°C	≥ 100°C, ±0.1% F.S.

Wiring diagram



Explosive-proof parameters

National Supervision and Inspection Center for Explosion Protection and Safety of Instrumentation (NEPSI)

Ex marking: [Ex ia Ga] ⅡC

Um: 250V

Certified parameters (Terminals 1, 2, 3):

Uo=8.7V, Io=33mA, Po=72mW

II C: Co=5μF, Lo=28mH

II B: Co=35μF, Lo=84mH

II A: Co=700μF, Lo=224mH

Model rules

NPEXA-C2☒☒☒

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