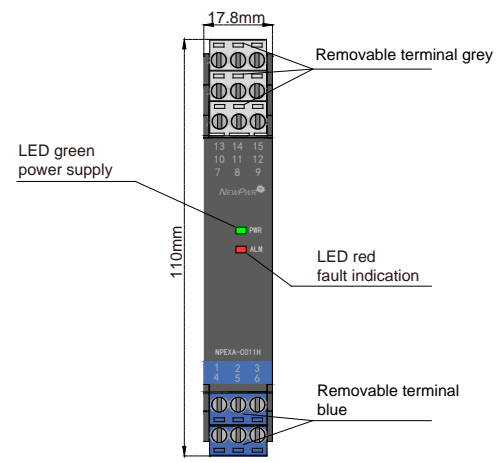




**NPEXA-C01H** Single input, single output  
**NPEXA-C011H** Single input, double output  
 Input : TC、RTD  
 Output : 4 ~ 20 mA

Temperature input safety barrier, it converts the thermocouple or thermal resistance signals from a hazardous area into current signals to a safe area by isolation. 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. A self-test feature is also available on this device. You can use PC or handheld programmer to modify parameters.



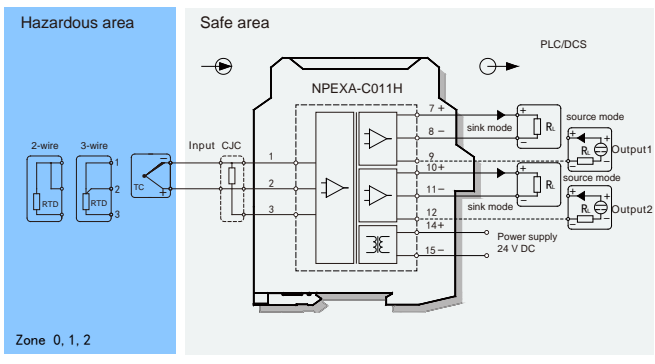
## Parameters

- Power supply: 18V DC ~ 60V DC (Reverse power protection)
- Power dissipation: 0.8W (single output)  
1.2W (double output)
- Input signal: K, E, S, B, J, T, R, N, etc  
Pt100, Cu100, Cu50, BA1, BA2, etc
- Line resistance: ≤ 20Ω per line (RTD)
- Output signal: 4 ~ 20 mA
- Load resistance: RL ≤ 550Ω
- Compensation accuracy: 1°C (Temperature compensation range: -20°C ~ +60°C)
- 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 (non-intrinsically safe side / 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: 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	
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.
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)  
 Explosive-proof grade: [Ex ia Ga] II C  
 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-C01H  
 PB : BUS powered  
 Default: Terminals powered  
 The second output signal<sup>[note1]</sup>  
 Default: null  
 The first output signal<sup>[note1]</sup>

note1 : output signal

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