

# RTD (loop powered)

## NPEXA-C21L

Single input, single output

Input: RTD

Output: 4~20mA



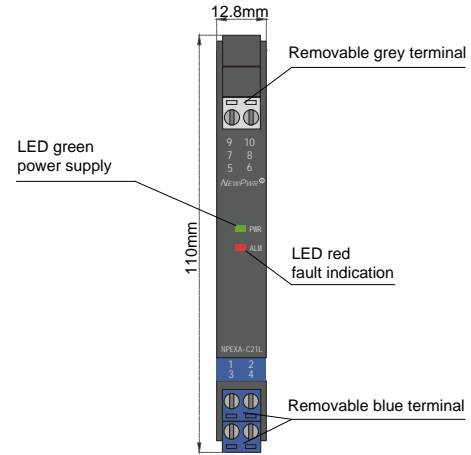
Temperature input safety barrier, it converts the resistance signals from a hazardous area into current signals to a safe area by isolation. It has loop powered. You can use PC or handheld programmer to modify parameters.

### Parameters

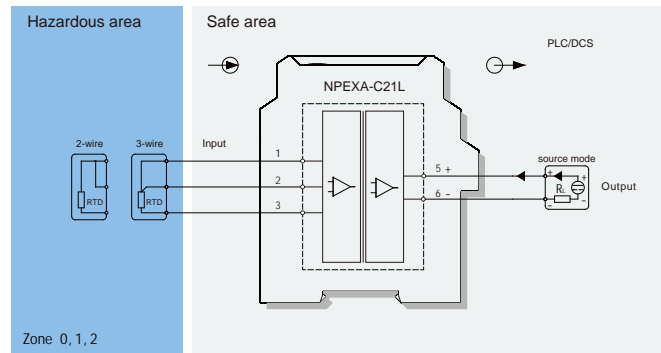
Loop Powered:	12V DC ~ 30V DC (Reverse power protection)
Input signal:	Pt100, Cu100, Cu50, BA1, BA2, etc
Line resistance:	≤ 20Ω per line (RTD)
Output signal:	4 ~ 20mA
Load resistance:	$R_L < [(U-12)/0.02]\Omega$ ; U is loop powered voltage
Temperature drift:	30ppm/°C
Response time:	≤ 500ms
Electromagnetic compatibility:	IEC 61326-3-1
Dielectric strength:	≥ 3000V AC (intrinsically safe side / non-intrinsically safe side)
Insulation resistance:	≥ 100MΩ (Input /Output)
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 is 3.5mA), the output follows the input within measuring range. And the maximum value would not exceed 22mA, the maximum output value would not less than 3.5mA

### 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)

Explosive-proof grade: [Ex ia Ga] II C

Um: 250V

Certified parameters (Terminals 1, 2, 3):

Uo=6.2V, Io=22mA, Po=35mW

II C : Co=30μF, Lo=40mH

II B : Co=700μF, Lo=120mH

II A : Co=700μF, Lo=320mH