

NPEXA-H21

single input, single output

Input: RTD

Output: 4 ~ 20 mA

Temperature input safety barrier, it converts the thermal resistance signals from a hazardous area into current signals to a safe area by isolation. 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.

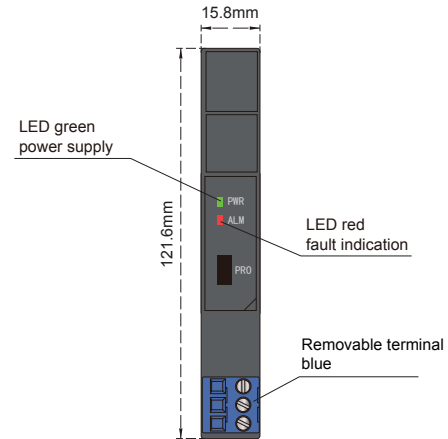
Technical data

Power supply:	18 V DC~32 V DC (Reverse power protection)
Power dissipation:	1.0 W (24V DC, single output)
Input signal:	RTD
Line resistance:	$\leq 20 \Omega$ per line (RTD)
Output signal:	4 ~ 20 mA
Load resistance:	$RL \leq 500 \Omega$
Temperature drift:	0.01% F.S./°C
Response time:	$\leq 1s$
Electromagnetic compatibility:	IEC 61326-3-1
Dielectric strength:	≥ 2500 V AC (intrinsically safe side / non-intrinsically safe side) ≥ 500 V AC (Power supply side / non-intrinsically safe side)
Insulation resistance:	≥ 100 M Ω (Input /Output/Power supply)
Operation temperature:	-20°C ~ +60°C
Storage temperature:	-40°C ~ +80°C
Dimension:	15.8 mm (W) × 121.6 mm (H) × 104.8 mm (D)
Output states:	Default following mode, it can be configured as 4mA~20mA NE43 mode or fixed output mode.

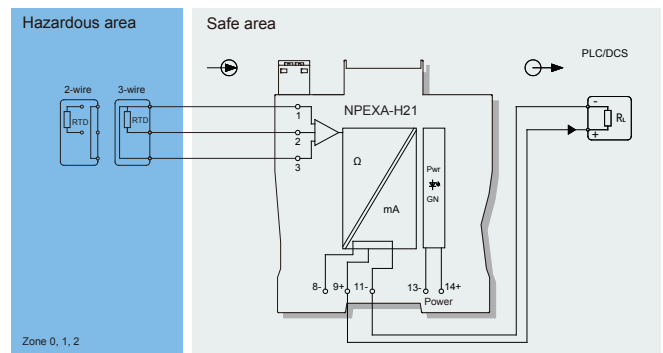
Conversion accuracy list (25°C±2°C)

Standards	Type	Range	Min.span/Accuracy
IEC 60751	Pt100($\alpha=0.00385$)	-200~850°C	<100°C, $\pm 0.1^\circ\text{C}$; $\geq 100^\circ\text{C}$, $\pm 0.1\%$ F.S.
	Pt100($\alpha=0.00391$)	-200~850°C	<100°C, $\pm 0.1^\circ\text{C}$; $\geq 100^\circ\text{C}$, $\pm 0.1\%$ F.S.
	Cu50($\alpha=0.00428$)	-180~200°C	<100°C, $\pm 0.1^\circ\text{C}$; $\geq 100^\circ\text{C}$, $\pm 0.1\%$ F.S.
GOST 6651	Cu100($\alpha=0.00428$)	-180~200°C	<100°C, $\pm 0.1^\circ\text{C}$; $\geq 100^\circ\text{C}$, $\pm 0.1\%$ F.S.
	Cu50($\alpha=0.00426$)	-50~200°C	<100°C, $\pm 0.1^\circ\text{C}$; $\geq 100^\circ\text{C}$, $\pm 0.1\%$ F.S.
	Cu100($\alpha=0.00426$)	-50~200°C	<100°C, $\pm 0.1^\circ\text{C}$; $\geq 100^\circ\text{C}$, $\pm 0.1\%$ 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)

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

Um: 250 V

Certified parameters (Terminals 1, 2, 3):

Uo=7.3V, Io=27mA, Po=50mW

II C : Co=12 μ F , Lo=28mH

II B : Co=151 μ F , Lo=84mH

II A : Co=700 μ F , Lo=224mH

Model rules

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The output signal^{note1}

note1 : Output signal

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