

## NPEXA-C31T1

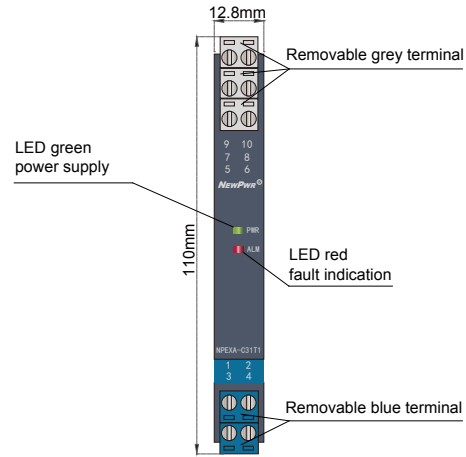
Single input, double outputs

Input: 4 ~ 20 mA  
Output: 4 ~ 20 mA, RS485

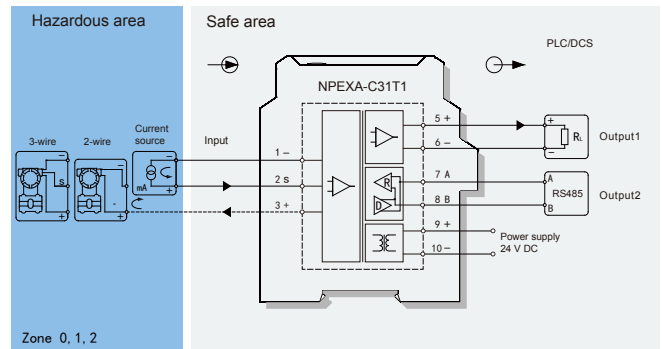
Analog input isolated barrier, it detects loop current and converts it from a hazardous area into 4~20mA and RS485 signals to a safe area by isolation. It needs an independent power supply. The input, output, and power supply are galvanically isolated from each other. Calibrate the apparatus or modify parameters by using a handheld programmer.

### Parameters

Power supply:	18V DC ~ 60V DC (Reverse power protection)
Power dissipation:	1.6W
Input signal:	4 ~ 20mA
Input resistance:	approx. 100Ω
Available voltage:	open-circuit voltage ≤ 26V voltage: ≥ 16V at 20mA
Output signal:	Output1: 4 ~ 20mA    Output2: RS485
Load resistance:	$R_L \leq 550\Omega$
Communication parameters:	MODBUS-RTU, distance ≤ 1000m
Baud rate:	≤ 19.2kpbs
Accuracy:	0.1%F.S.
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 or short circuit, the output is 0V/mA), 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)



### 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):

Uo=8.7V

IIC: Co=5μF

IIIC(IIB): Co=49μF

Certified parameters (Terminals 1, 3):

Uo=28V, Io=93mA, Po=651mW

IIC: Co=0.07μF, Lo=4.2mH

IIIC(IIB): Co=0.64μF, Lo=12.6mH

### Model rules

NPEXA-C31T1

PB: BUS powered  
Default: Terminals powered

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