

Frequency Isolated Barrier

NPEXA-C61P2

Single input, single output

NPEXA-C611P2

Single input, double outputs

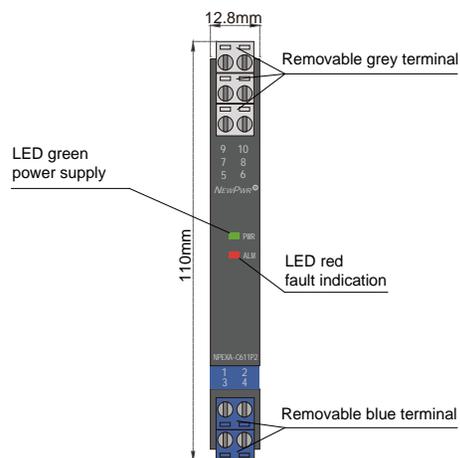
Input: frequency

Output: 4 ~ 20 mA

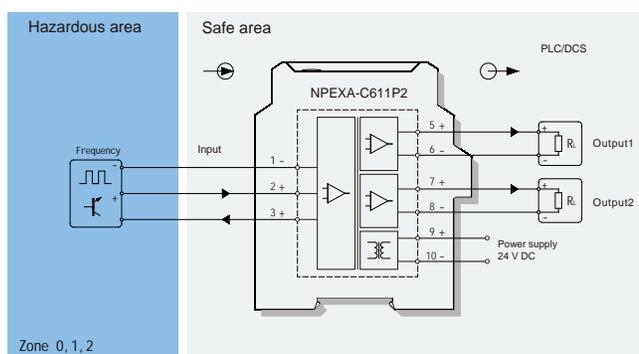
Frequency input isolated barrier, it converts the frequency signals from a hazardous area into 4~20mA signals to a safe area by isolation. The input, output, and power supply are galvanically isolated from each other. Calibrate the apparatus or modify parameters by using a handheld programmer.

Parameters

Power supply:	18V DC ~ 60V DC (Reverse power protection)
Power dissipation:	0.8W (single output)
Input signal:	1.3W (double outputs)
Input resistance:	frequency
Frequency range:	0.1Hz ~ 100kHz
Pulse width:	≥ 5μs
Input impedance:	≥ 10kΩ
Switching trigger point:	Low level: 0V ~ 2V, High level: 4V ~ 30V
Distribution voltage:	≥ 16 V, when loaded with 20 mA
Output signal:	4 ~ 20mA
Load resistance:	$R_L \leq 550\Omega$
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)
Fault states:	Input signal state indicator (red), it is remain bright when input over-range. it is flicker when input breakage.



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):

Uo=8.7V, Io=1mA, Po=3mW

II C: Co=5μF, Lo=1000mH

II B: Co=35μF, Lo=1000mH

II A: Co=700μF, Lo=1000mH

Certified parameters (Terminals 1, 3):

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

II C: Co=0.08μF, Lo=4.2mH

II B: Co=0.68μF, Lo=12.6mH

II A: Co=2.27μF, Lo=33.6mH

Model rules

NPEXA-C6 P2

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