

Frequency Isolated Safety Barrier

NPEXA-H61P1

Single input, single output

NPEXA-H611P1

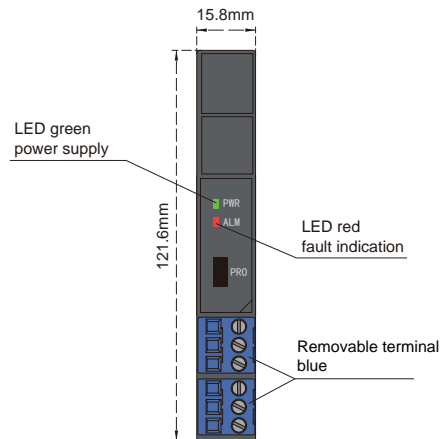
Single input, double output

Input: Frequency
Output: 4 ~ 20 mA

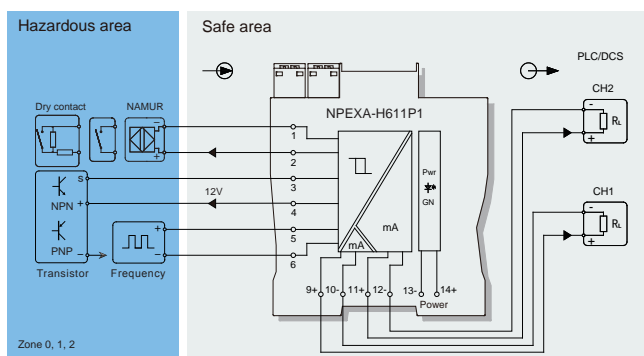
This isolated safety barrier converts the frequency signals from a hazardous area into current or voltage signals to a safe area by isolation. The input, output, and power supply are galvanically isolated from each other. A self-test feature is also available on this device. You can use PC or handheld programmer to modify parameters.

Technical data

Power supply:	18 V DC~32 V DC (Reverse power protection)
Power dissipation:	0.8 W (24V DC, single output) 1.8 W (24V DC, double output)
Input signal:	Frequency Max. Input voltage: 30V Min. Input amplitude: 2V Frequency range: 0.1Hz~100kHz PNP/NPN Distribution voltage: 12V Current: ≤ 20mA Frequency range: 0.1Hz~10kHz NAMUR switch Distribution voltage: approx.8.2V Short-circuit current: approx.8mA Frequency range: 0.1Hz~10kHz
Output signal:	4 ~ 20 mA
Load resistance:	RL ≤ 500 Ω
Accuracy:	± 0.1%F.S.
Temperature drift:	≤ 0.01%F.S./°C
Response time:	≤ 500ms
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 MΩ (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)
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)

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

Um: 250 V

Certified parameters (Terminals 1, 2):

Uo=10.5V, Io=13mA, Po=35mW, Co=1.68μF, Lo=100mH

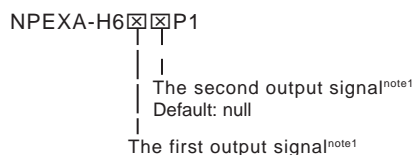
Certified parameters (Terminals 5, 6):

Uo=10.5V, Io=6mA, Po=16mW, Co=1.68μF, Lo=700mH

Certified parameters (Terminals 3, 4, 6):

Uo=15.8V, Io=107mA, Po=423mW, Co=0.478μF, Lo=1.8mH

Model rules



note1 : Output signal

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