

Frequency Isolated Safety Barrier

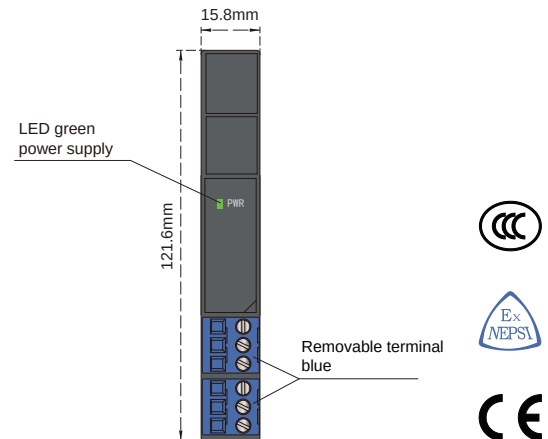
NPEXA-H67P1

Single input, single output

Input: Frequency

Output: 1:1

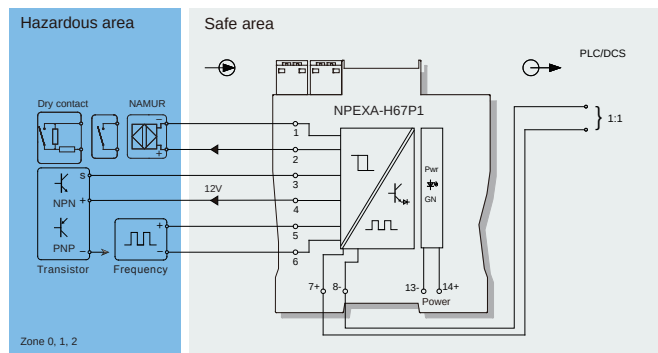
This isolated safety barrier converts the frequency signals from a hazardous area to a safe area by isolation. The input, output, and power supply are galvanically isolated from each other.



Technical data

Power supply:	18 V DC~32 V DC (Reverse power protection)
Power dissipation:	0.8 W (24V DC, single 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:	Open collector High level: Vcc (≤ 30V) Low level: ≤ 2V drive current: ≤ 10mA Emitter follower High level: Vcc-2V Low level: ≤ 0.5V drive current: ≤ 10mA Logic level High level: 9V ≤ VH ≤ 12V Low level: VL ≤ 2V Load resistance: ≥ 1kΩ
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)

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