

Frequency Isolated Safety Barrier

NPEXA-H61A1P1

Single input, double output

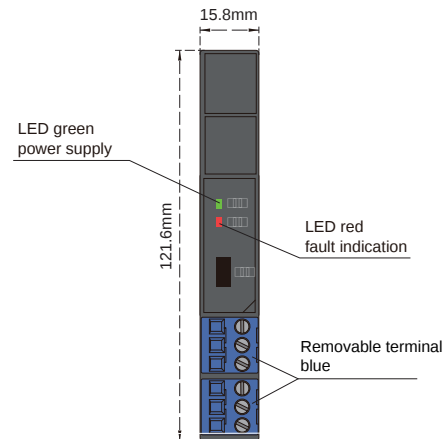
Input: Frequency

Output: 4 ~ 20 mA, relay

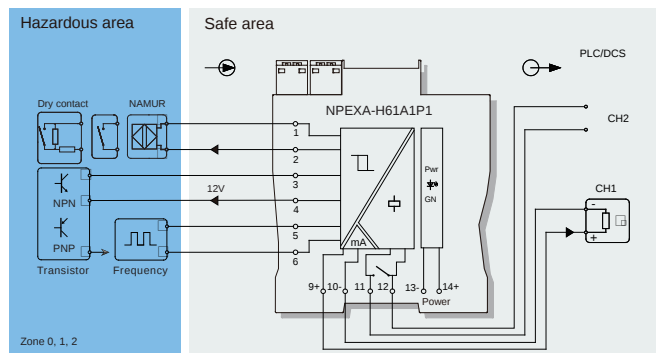
This isolated safety barrier converts the frequency signals from a hazardous area into current or voltage signals to a safe area by isolation, a relay alarm output. The input, output, and power supply are galvanically isolated from each other. A self-test feature is also available on this device. You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

Technical data

Power supply:	18 V DC~32 V DC (Reverse power protection)		
Power dissipation:	1.8 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:	Output1: 4 ~ 20 mA Output2: relay contact		
Load capacity:	Output1: RL ≤ 500 Ω Output2: 0.5A/35V DC		
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):

$U_o=10.5V$, $I_o=13mA$, $P_o=35mW$, $C_o=1.68\mu F$ $L_o=100mH$

Certified parameters (Terminals 5, 6):

$U_o=10.5V$, $I_o=6mA$, $P_o=16mW$, $C_o=1.68\mu F$ $L_o=700mH$

Certified parameters (Terminals 3, 4, 6):

$U_o=15.8V$, $I_o=107mA$, $P_o=423mW$, $C_o=0.478\mu F$ $L_o=1.8mH$

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