

Vibration Sensor Input Isolated Barrier

NPEXA-C87

Single input, single output

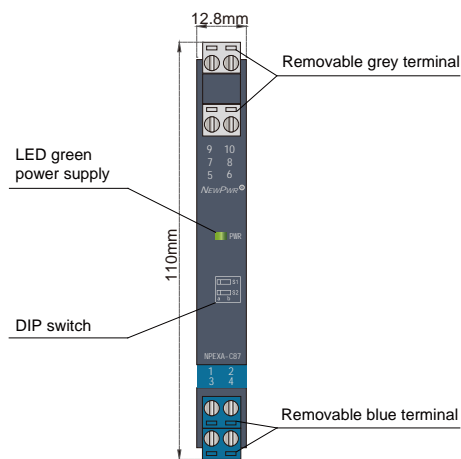
Input: -20V ~ 0V

Output: 1:1

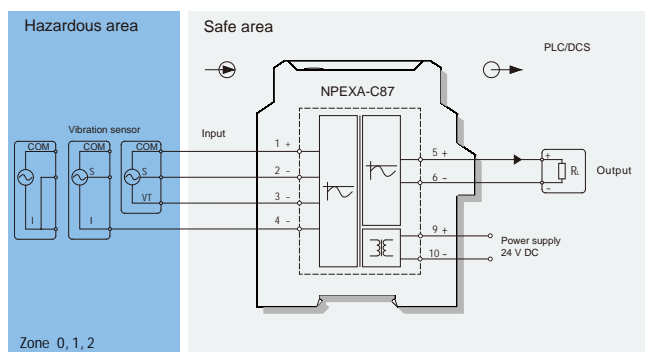
Vibration sensor input isolated barrier, it transfers the output signals of eddy-current transducer from a hazardous area to a safe area. It needs an independent power supply. The input, output, and power supply are galvanically isolated from each other.

Parameters

| | |
|--------------------------------|---|
| Power supply: | 18V DC ~ 60V DC (Reverse power protection) |
| Power dissipation: | 1.2W |
| Input signal: | -20V ~ 0V |
| Line resistance: | ≥ 10kΩ |
| Available voltage: | open-circuit voltage ≥ -26V voltage: ≤ -18V at 20mA |
| Output signal: | -20V ~ 0V |
| Load resistance: | < 3Ω |
| DC accuracy: | < ±20mV |
| AC accuracy: | 0Hz ~ 1kHz ±1 % 1kHz ~ 20kHz -2 % ~ +1 % |
| Temperature drift: | 100ppm/°C |
| Cut-off frequency: | < -0.1dB (5kHz) < -3dB (50kHz) |
| Phase response: | < 10 μs 200Hz -0.72° 600Hz -2° 1kHz -3.6° 10kHz -36° 20kHz -72° 50kHz -180° |
| 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) |



Wiring diagram



Explosive-proof parameters

China National Quality Supervision and Test Centre for Explosion Protected Electrical Products (CQST)

Ex marking: [Ex ia Ga] IIC
[Ex ia Da] IIIC

Um: 250V

Certified parameters (Terminals 2, 1):

Uo=+1.25V/-1.25V, Io=0.1mA, Po=0.03mW

Co=100μF, Lo=100mH

Certified parameters (Terminals 3/4, 1):

Uo=-27.3V, Io=92mA, Po=628mW

Co=0.08μF, Lo=3.4mH