

Potentiometer Isolated Safety Barrier

NPEXA-H9D11 double input, double output

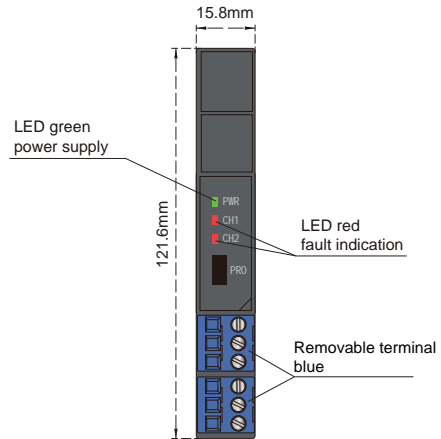
Input: potentiometer

Output: 4 ~ 20 mA

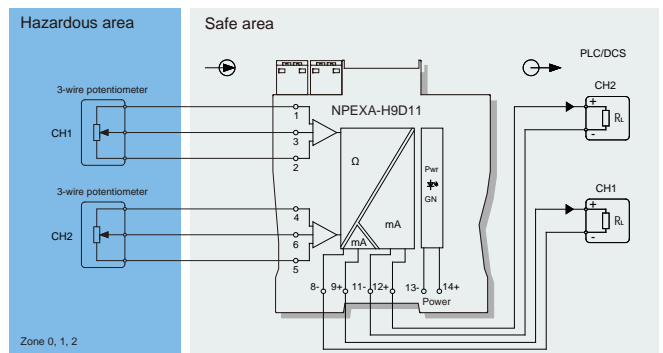
This isolated safety barrier converts the 3-wire potentiometer signals from a hazardous area into current signals to a safe area by isolation. The input, output, and power supply are galvanically isolated from each other. You can use handheld programmer to modify parameters or to calibrate the apparatus.

Technical data

Power supply:	18 V DC~32 V DC (Reverse power protection)
Power dissipation:	1.5 W (24V DC, double output)
Input signal:	3-wire potentiometer: 0 Ω ~ 10 kΩ
Output signal:	4 ~ 20 mA
Load resistance:	RL ≤ 500 Ω
Accuracy:	± 0.1%F.S.
Temperature drift:	0.01%F.S./°C
Response time:	≤ 1s
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)
Output states:	Whatever input fault status (except breakage), the output follows the input within measuring range. And the maximum value would not exceed the 110% of the upper limit of the measuring range (e.g. When the output signal type is 0 ~ 20 mA, the minimum output value may be 0 mA, the maximum output value would not exceed 22 mA)



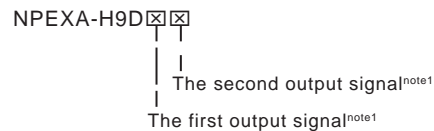
Wiring diagram



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, 3; 4, 5, 6):
Uo=7.3V, Io=27mA, Po=50mW
II C : Co=12μF , Lo=28mH
II B : Co=151μF , Lo=84mH
II A : Co=700μF , Lo=224mH

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