

C Series
Single Channel
Potentiometer Isolated Safety Barrier

→ Introductions

This isolated safety barrier converts the 3-wire potentiometer signals from a hazardous area into current or voltage signals to a safe area. DIN rail power supply function can be selected in ordering.

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.

→ Parameters

Explosive-proof grade: [Ex ia Ga] IIC

Power supply:

Connection type: Terminals (9+, 10-) or DIN rail connector

Rated voltage: 18 V DC ~ 60 V DC (Recommended voltage: 24 V DC)

Input (1, 2, 3):

3-wire potentiometer: 0 Ω ~ 10 kΩ

Output (5, 6; 7, 8):

Output current: 0(4) ~ 20 mA; 0 ~ 10 mA

Output voltage: 0(1) ~ 5 V; 0 ~ 10 V

Load resistance:

0(4) ~ 20 mA: ≤ 550 Ω; 0 ~ 10 mA: ≤ 1.1 kΩ

0(1) ~ 5 V: ≥ 1 MΩ; 0 ~ 10 V: ≥ 2 MΩ

Output ripple: ≤ 5 mV_{rms} (Load resistance: 250 Ω)

Transmission characteristics:

Accuracy: ± 0.1% F.S. (25 °C ± 2 °C)

Response time: ≤ 0.5 s

Temperature drift: 30 ppm/°C

Electromagnetic compatibility: Accordance to IEC 61326-3-1

Dielectric strength (1 mA leakage current, 1 minute test time):

≥ 3000 V AC (intrinsically safe side / non-intrinsically safe side)

≥ 1500 V AC (non-intrinsically safe side / non-intrinsically safe side)

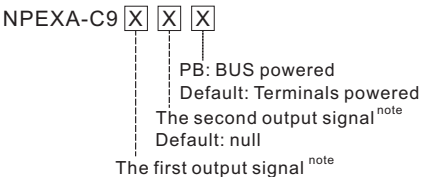
Insulation resistance: ≥ 100 MΩ (Input /Output/Power supply)

Parameters certified by National Supervision and Inspection Center for Explosion Protection and Safety of Instrumentation (NEPSI):

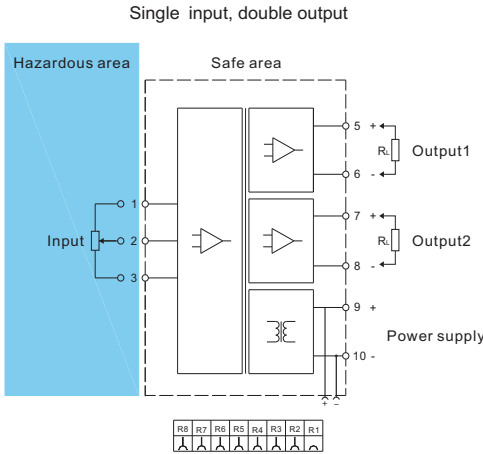
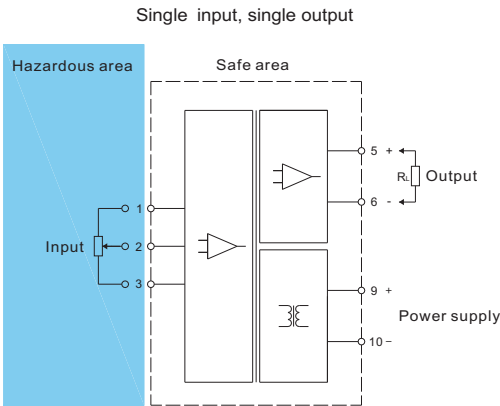
Um: 250 V

Terminals 1, 2, 3:

Uo: 8.7 V Io: 33 mA Po: 72 mW Co: 5 μF Lo: 28 mH



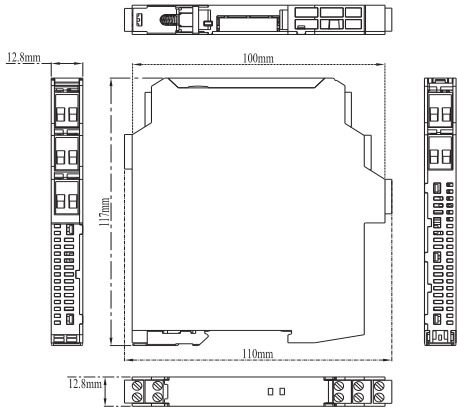
Number	Output signal
1	4 mA ~ 20 mA
2	1 V ~ 5 V
3	0 mA ~ 10 mA
4	0 V ~ 5 V
5	0 V ~ 10 V
6	0 mA ~ 20 mA
X	User customized signal type



- Follow mode: 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).
- DIN rail power supply function is selectable at ordering.

→ Dimension

Width × Height × Depth: 12.8 mm × 110 mm × 117 mm



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by qualified personnel in non-hazardous area according with the instruction manual.

- The operator must strictly comply with the relevant local safety standards and guidelines.

→ Supplementary instructions

- Our company reserves the right to change the product information without prior notification to the user. If the