

C Series  
Resistance Input, Resistance Output  
Isolated Safety Barrier

→ Introductions

This isolated safety barrier converts the resistance signals to : resistance signals.

The input, output, and power supply are galvanically isolated from each other. It can be interfaced with all kinds of device, such as DCS, PLC and other systems.

→ Parameters

**Power supply:**  
Connection type: Terminals ( 4+, 5-) or DIN rail connector  
Rated voltage: 8 V DC ~ 60 V DC (Recommended voltage: 24 V DC)

**Input (1, 2, 3; 4, 5, 6):**  
Input signal: 2/3-wire resistance signal  
Signal range: 8 Ω ~ 400 Ω

**Line resistance:** ≤ 20 Ω per line

**Output (7, 8, 9; 10, 11, 12):**  
Output signal: : input resistance signal  
Output drive current: 0. ~ 0 mA

**Transmission characteristics:**

| Output drive current | Accuracy                                             |
|----------------------|------------------------------------------------------|
| 0.5 ~ 0 mA           | ± 0. % F.S. or < 0.2 Ω<br>(Choose the maximum value) |

NOTE: The transmission accuracy of resistance decreases with the decrease of drive current.

**Response time:** ≤ 0.5 s

**Temperature drift:** 30 ppm/°C

**Electromagnetic compatibility:** Accordance to IEC 6 326-3-

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

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

≥ 500 V AC (non-intrinsically safe side /non-intrinsically safe side)

**Insulation resistance:** ≥ 00 MΩ (Input /Output/Power supply)

**Parameters certified by China National Quality Supervision and Test Centre for Explosion Protected Electrical Products (CQST):**

Um: 250 V

Terminals , 3; 2, 3; 4, 6; 5, 6 :

Uo: 8.7 V Io: 33 mA Po: 72 mW Co: 5.0 μF Lo: 3.0 mH

**Ambient conditions:**

Operation temperature: -20 °C ~ +60 °C

Relative humidity: 0% RH ~ 90% RH (40 °C)

Atmosphere pressure: 80 kPa ~ 06 kPa

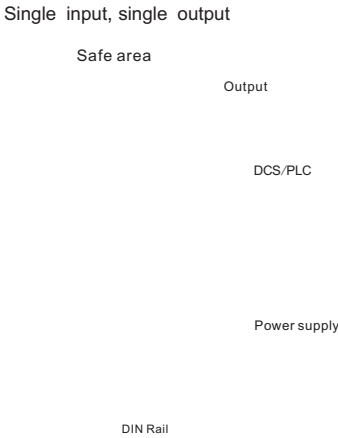
Storage temperature: -40 °C ~ +80 °C

**Power dissipation:** 0.4 W

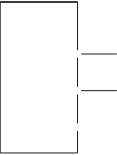
→ Support model type

| Model number                |               | Output1              | Output2              | Power supply |          |
|-----------------------------|---------------|----------------------|----------------------|--------------|----------|
|                             |               | 1:1resistance signal | 1:1resistance signal | Terminals    | DIN rail |
| Single input, single output | NPEXA-C27     | ■                    |                      | ■            |          |
|                             | NPEXA-C27PB   | ■                    |                      | ■            | ■        |
| Single input, double output | NPEXA-C277    | ■                    | ■                    | ■            |          |
|                             | NPEXA-C277PB  | ■                    | ■                    | ■            | ■        |
| Double input, double output | NPEXA-C2D77   | ■                    | ■                    | ■            |          |
|                             | NPEXA-C2D77PB | ■                    | ■                    | ■            | ■        |

→ Wiring diagram



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DCS/PLC