C Series
Resistance Input, Resistance Output Isolated Safety Barrier

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➔ 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 (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/℃

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):

U_m: 250 V

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

U_o: 8.7 V I_o: 33 mA P_o: 72 mW C_o: 5.0 μF L_o: 3.0 mH

Ambient conditions:

Operation temperature: −20 ℃ ~ +60 ℃

Relative humidity: 0% RH ~ 90% RH (40 ℃)

Atmosphere pressure: 80 kPa ~ 06 kPa

Storage temperature: −40 ℃ ~ +80 ℃

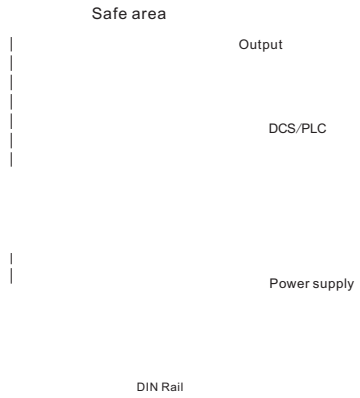
Power dissipation: 0.4 W

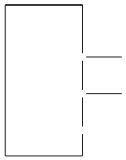
➔ Support model type

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

Single input, single output





DCS/PLC