

C Series Single Channel Intelligent Isolator



→ Introductions

This isolator converts the current or voltage signals into current or voltage signals. The input, output, and power supply are galvanically isolated from each other. DIN rail power supply function can be selected in ordering. It also provides transmitters with power in the field area.

The main advantages of the isolator are fast response, low dissipation and temperature stability. It can be interfaced with all kinds of device, such as DCS, PLC and other systems.

→ Parameters

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):

Current: 0(4) ~ 20 mA; 0 ~ 10 mA

Voltage: 0(1) ~ 5 V; 0 ~ 10 V

Input resistance:

Current: $\leq 60 \Omega$

Voltage: $\geq 1 M\Omega$

Available voltage: No-load $\leq 26 V$; Full-load $\geq 22 V$

Output1 (5, 6):

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

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

Output2 (7, 8): RS485

Load resistance:

0(4) ~ 20 mA: $\leq 550 \Omega$; 0 ~ 10 mA: $\leq 1.1 k\Omega$

0(1) ~ 5 V: $\geq 1 M\Omega$; 0 ~ 10 V: $\geq 2 M\Omega$

Transmission characteristics:

Accuracy: $\pm 0.1\%$ F.S (25 °C ± 2 °C)

Response time: $\leq 0.5 s$

Temperature drift: 30 ppm/°C

Protocol: MODBUS-RTU

Communication distance:

Distance $\leq 1000 m$ (node ≤ 32)

Baud rate: $\leq 19.2 kbps$

Electromagnetic compatibility: Accordance to IEC 61326-3-1

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

$\geq 1500 V AC$ (Input /Output/Power supply)

Insulation resistance: $\geq 100 M\Omega$ (Input /Output/Power supply)

Ambient conditions:

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

Relative humidity: 10% RH ~ 90% RH (40 °C)

Atmosphere pressure: 80 kPa ~ 106 kPa

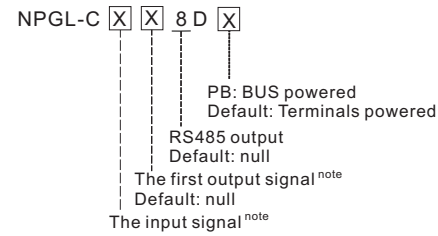
Storage temperature: -40 °C ~ $+80$ °C

Power dissipation:

1.2 W (24 V DC, single output)

1.6 W (24 V DC, double output)

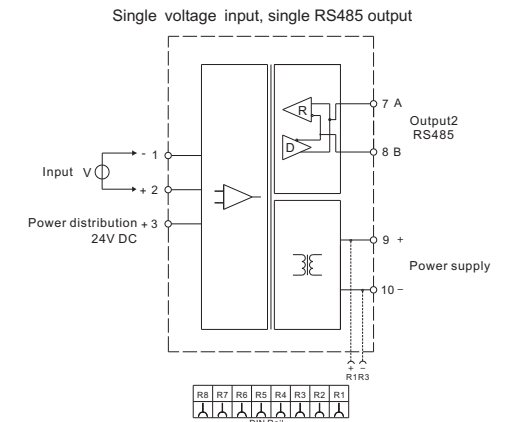
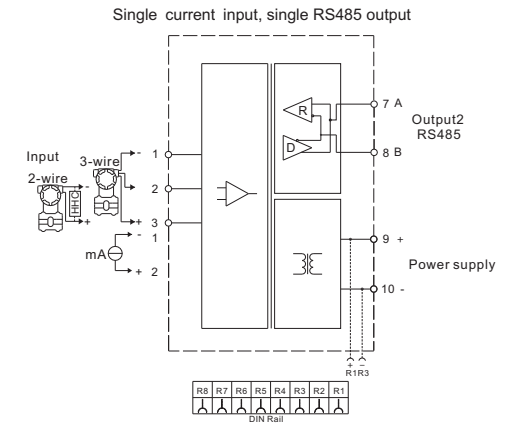
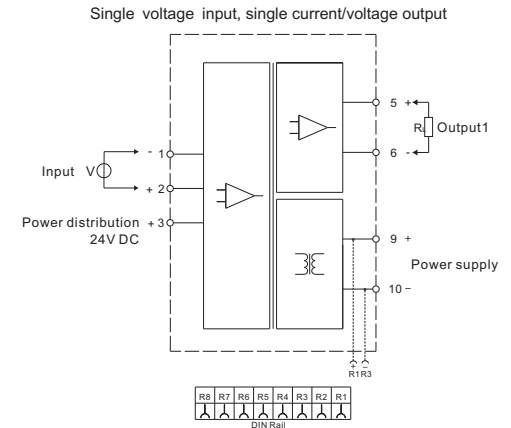
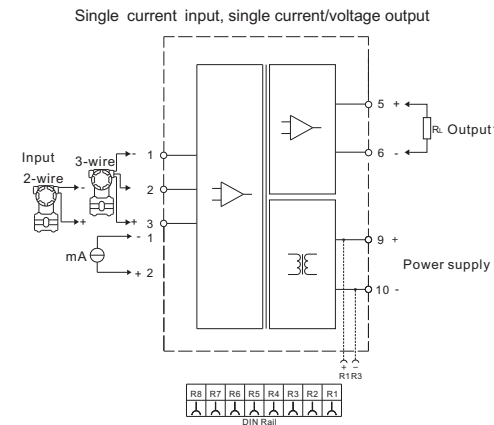
→ Model rules



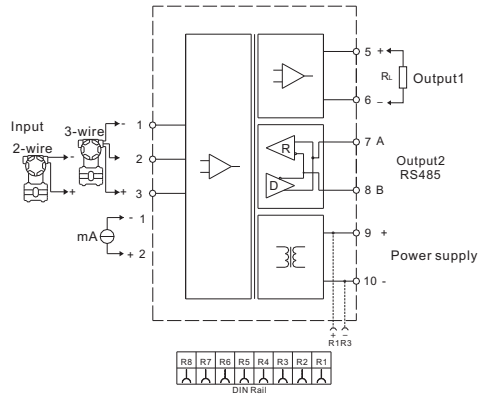
NOTE : Input/Output signal

Number	Input/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

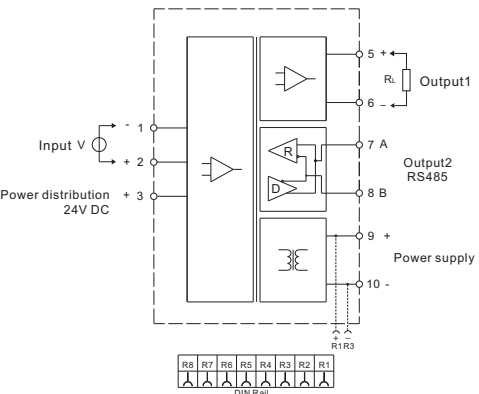
→ Wiring diagram



Single current input, single current/voltage output, single RS485 output



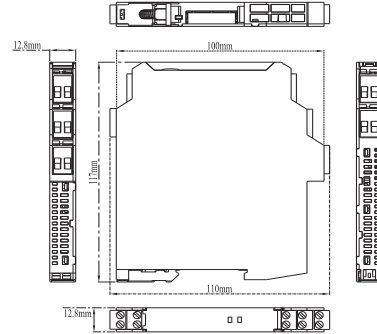
Single voltage input, single current/voltage output, single RS485 output



- Follow mode: Whatever input fault status (except breakage or short circuit, when the input breakage or short circuit signal type is 4 ~ 20 mA/1 ~ 5 V, the output value is 0 V/mA), 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

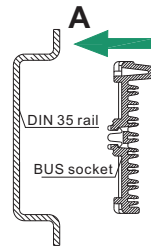


→ BUS Specification

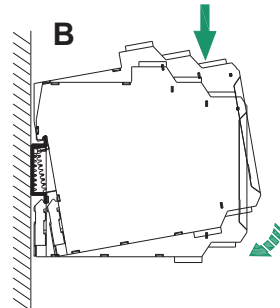
BUS	Electrical Characteristics
Current	Max. 8 A
Voltage (UL/IEC)	1.6 kV
Operation temperature	-40 °C ~ +80 °C

→ Installation

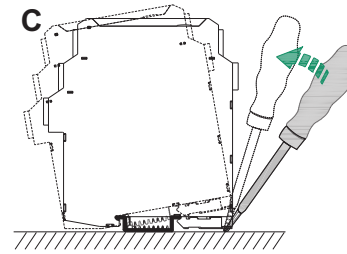
- The apparatus can be installed on the DIN 35 mm standard rail which is corresponding to DIN IEC 60715. The must be snapped onto the rail, and never slanted or tipped to the side.
- Installation and disassembly steps are shown in following figures:



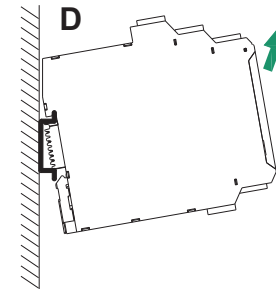
A. Snap the BUS socket on the DIN 35 rail, as figure A;



B. Snap metal lock onto mounting rail, then rotate the devices, as figure B, press down the devices onto mounting rail, make sure that the BUS connector pins of devices and BUS socket are in close contact.

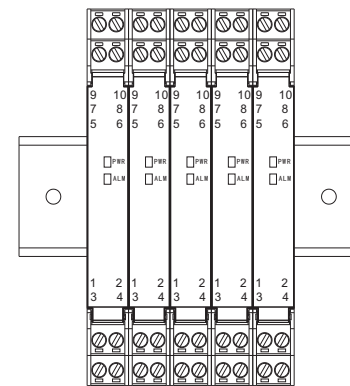


C. Pry the metal lock off the rail with screwdriver as arrow shown, pull downward the springs, and rotate the devices.



D. Remove the devices as arrow shows.

- As far as possible to mount it vertically, In order to dissipation the heat of the apparatus.



Vertically installation

→ Light indication

- PWR: Power indicator light shows green, it means work normally.
- ALM: Input signal state indicator (red), it is off during normal operation, remain bright when input over-range, It is glitter when 4-20 mA/1-5 V input line breakage or short circuit.

→ Attention

- The devices degree of protection is IP 20 and must be protected from undesirable ambient conditions (waterproofing, small foreign objects). It is suitable for installation in the control room or high density field cabinet, DIN 35 mm installation is convenient for installation and displacement.
- The devices were designed for use in pollution degree 2 and overvoltage category III as per IEC/EN 60664-1. If used in areas with higher pollution degree, the devices need to be protected accordingly.
- Installation position shall not be affected by strong mechanical vibration; impact and electromagnetic induction from signal terminal and power supply, should conformity with the requirements on electromagnetic interference resistance of products in Class 3 industrial field atmosphere stipulated in IEC 61000-4; the atmosphere shall be free from gases that are corrosive to metal and plastic components.
- The apparatus must be installed, connected and adjusted 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 contents of the description are different from website or sample, this description shall prevail.