

User's Manual of

Current/Voltage Input

Signal isolator

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Version

U-YAP602S-MYEN1

1. Performance Introduction

Provide an isolated working power supply to the transmitter, and detect the current in the circuit and output current or voltage signal via isolation and transmission at the same time.

The input, output and power supply terminals are isolated from each other, characterized by the advantages such as fast response, low power consumption and good temperature characteristics.

This product adopts smart design, provided with many advanced technologies such as internal digital adjustment, no potentiometer and zero-point auto-calibration. Through matching with various types of instruments and DCS, PLC and other devices, the product has been widely used in major projects in petroleum, petrochemical, manufacturing, power, metallurgy and other industries.

2. Technology Parameters

- **Allowed input signal:**

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

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

Other signal types may be customized

as required, see the product label for details;

- **Input impedance:**

DC: about 100Ω

In case of 0(1)V ~ 5V input, $\geq 1\text{M}\Omega$; in

case of 0V ~ 10V input, $\geq 2\text{M}\Omega$

- **Allowed output signal:**

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

Passive current: 4mA ~ 20mA;

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

Other signal types may be customized as required, see the product label for the specific signal types;

- **Output load capacity:**

Active: 0(4)mA ~ 20mA: $\leq 500\Omega$; 0mA ~ 10mA: $\leq 1\text{k}\Omega$

Passive: $R_L \leq [(U-3)/0.02] \Omega$; U refers to the circuit service voltage

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

Other load demands may be customized as required, see the product label for details.

- **Output ripple:**

$\leq 5\text{mVrms}$ (load 250Ω)

- **Distribution output voltage:**

Open circuit voltage $\leq 26\text{V}$;

Full-load voltage $\geq 23\text{V}$

In case of full-load 20mA output, voltage $\geq 17.5\text{V}$

- **Accuracy of isolated transmission:**

$\pm 0.1\% \text{F}\cdot\text{S}$ ($25^\circ\text{C} \pm 2^\circ\text{C}$)

- **Temperature drift:** 40ppm/ $^\circ\text{C}$

- **Response time:** $\leq 0.5\text{s}$

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

$\geq 1500\text{VAC}$ (among input/output/power supply)

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$\geq 1500\text{VAC}$ (among input/output/power supply)

- **Insulation resistance:** $\geq 100\text{M}\Omega$ (among input/output/power supply)

- **EMC:** EMC conforms to IEC61326-3

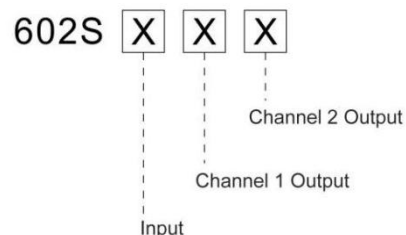
- **Power supply:** DC 18 ~ 32V (typical value 24V DC)

- **Full-load power(In case of 24V DC) :**

Single-channel output 0.6W

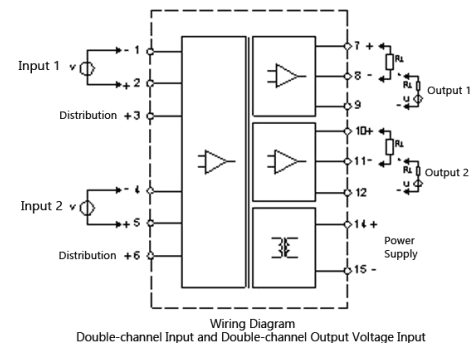
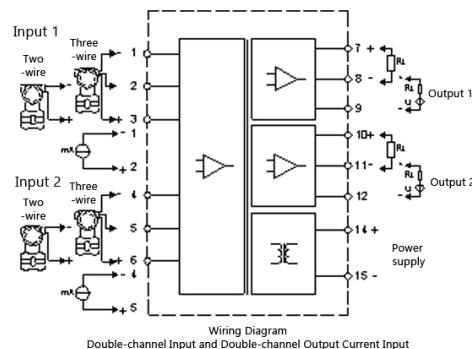
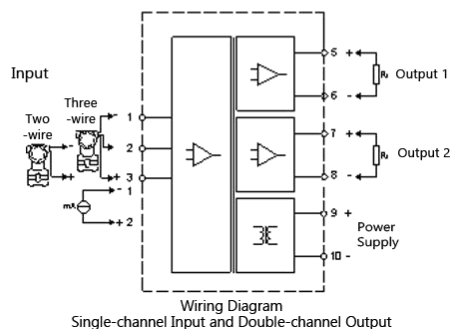
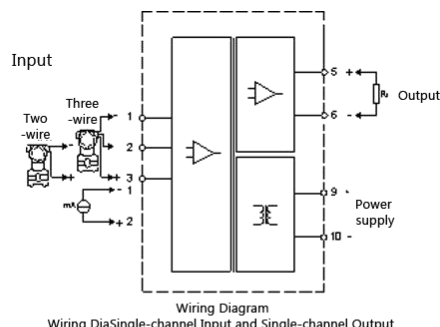
Double-channel full-load output 1.5W

3. Wiring Diagram:



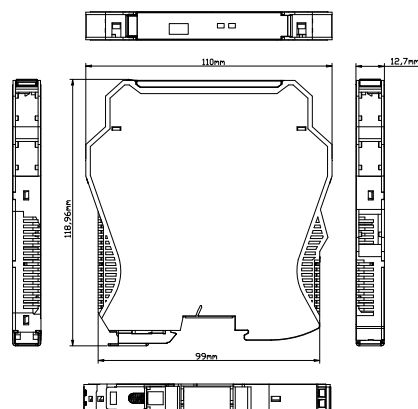
Code	Meaning
1	4~20mA
2	1~5V
3	0~10mA
4	0~5V
5	0~10V
6	0~20mA

4. Wiring Diagram:



5. Outline Dimensions

Width × Height × Depth
(12.7mm×110mm×118.9mm)



3. Panel Indicator

- **PWR:** Power indicator (green). When The instrument is powered, it lights up all the time.
- **OUT1, OUT2:** Channel input signal status indicator, red, corresponding to channel 1 and channel 2 respectively. The indicator does not light up during normal operation; the indicator flashes in case of input signal failures of corresponding channel; the indicator lights up all the time when the input signal of corresponding channel is out of range.

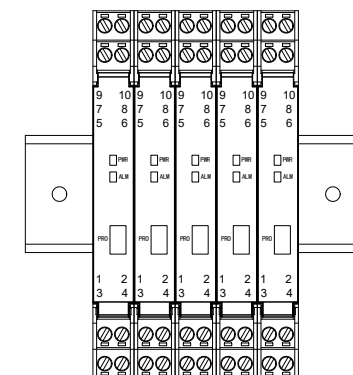
4. Operational Environment

- Ambient temperature during operation: -20°C ~ +60°C
- Allowed relative humidity during operation: 10%RH ~ 90%RH (40°C)
- Allowed atmospheric pressure during operation: 80kPa ~ 106kPa
- Allowed ambient temperature during storage and transportation: -40°C ~ +80°C

5. Installation Method

- 35mm guide-rail type installation. Please position stably and firmly.

- Please install it as vertically as possible to facilitate heat dissipation inside the instrument.



Vertical Installation Diagram

6. Considerations

There shall not be strong vibration and the electromagnetic interference exceeding the intensity of Type 3 industrial field in the IEC61000-4 series from the signal terminal, power supply terminal and space at the installation location, and there shall be no harmful substances having serious corroding effect on the metallic and plastic parts in the operational environment.

7. Other Descriptions

In case of any unconformities between the contents in this instruction manual and the information of website and samples, etc., this instruction manual shall prevail.