

12.5mm slim case passive signal isolations



FEATURES

- Two-port electrical isolation (input and output): 2000VAC
- 12.5mm slim case
- High accuracy (0.1% F.S.)
- High linearity (0.1% F.S.)
- Low temperature coefficient (35PPM/°C)
- High reliability(MTBF>500,000 hours)

TAx06W-xx Passive Signal Isolators, ideal for applied in the industrial automation system ,receive the 4~20mA signal from the industrial field equipment, and provide an isolated output to DCS/PLC. Galvanic isolation eliminates ground loops, reduces noise, and blocks transient signals, which improve system stability.

The products can also be used in the application of output loop circuit power supply. Through this way, it can power the two wire system instruments, and receive 4~20mA signal from the instruments which can be isolated output to PLC or DCS without any independent power supply.

The product contain 1-input-1-output,2-input-2-output, 3-input-3 -output and so on. The thickness of 12.5mm meeting the need for high density field installation.

Selection Guide

Part No.	Channels	Input Signal	Output Signal
TA306W-11	3	4-20mA	4-20mA
TA206W-11	2	4-20mA	4-20mA
TA106W-11	1	4-20mA	4-20mA

Note: Customers need to determine the type of input signal, measuring range and form of output signal while placing an order, customization is available for special requirements.

Input Specifications

Item	Operating Conditions	Value
Input signal		See selection guide
Input Impedance	current input @20mA	5V
Input over-current		≤30mA (Over-current protection)

Output Specifications

Item	Operating Conditions	Value
Output signal		See selection guide
Load capacity		≤300Ω

Transmission Specifications

Item	Operating Conditions	Value
Precision		0.1%FS. (Output loop circuit power supply accuracy: 0.3%FS.)
Zero Offset		0.1%FS.
Response time		<0.5s
Temperature Coefficient	Operating temperature range of -25°C to +71°C	0.0035%FS./ °C

General Specifications

Item	Operating Conditions	Value
Electric Isolation	1Min , leakage current ≤5mA	Input terminal and output terminal: 2.0KVAC, 3.0KVDC
Insulation Resistance	500VDC(Input terminal and output terminal)	100MΩ
Operating Temperature		-25°C to +71°C
Transportation and Storage Temperature		-40°C to +85°C

Physical Specifications

Package Dimensions	35mm DIN-rail package
Weight	90g (typ.)
Application Environment	No dust, strong vibration, shock and corrosion of the gas product in surroundings

Application Precautions

1. Please read the instructions carefully before use; contact our technical support if you have any problem;
2. Do not use the product in hazardous areas;
3. Use DC power supply for the product. and 220VAC power supply is prohibited;
4. Do not disassemble or assemble the product without permission to avoid explosion protection failure or malfunction of product.

AFTER-SALES SERVICE

1. Products are carefully inspected and quality controlled during production and before shipment. If they operated abnormally or there was anything wrong, please contact our agent from which you purchased or MORNSUN FAE as soon as possible.
2. MORNSUN warranty our product for 3 years from manufacturing date. During this period, MORNSUN will repair or replace the product if product was found to have manufacturing defect.

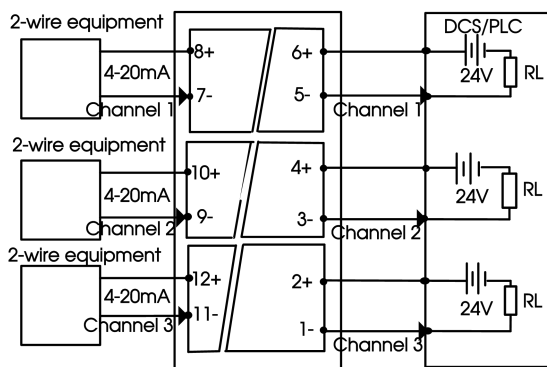
APPLICATION CIRCUIT

Refer to the a Application Guide to Isolation Transmitter.

Design Reference

1. Wiring diagram for product application

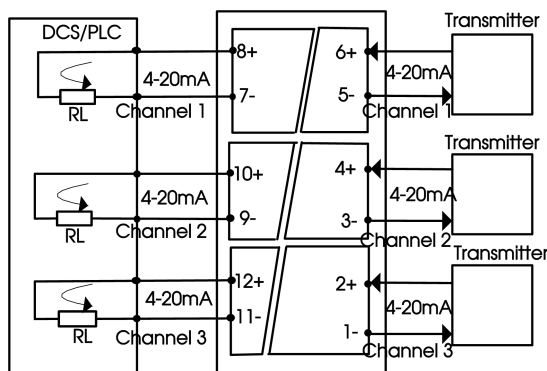
Wiring diagram of output loop circuit power supply application



Output loop circuit of power supply pin description

PIN	Description (3 IN 3 OUT)
1	lout3 channel 3 current output
2	Vin3+ channel 3 power input+
3	lout 2 channel 2 current output
4	Vin 2+ channel 2 power input+
5	lout 1 channel 1 current output
6	Vin 1+ channel 1 power input+
7	lin1 channel 1 current input
8	Vout1+ channel 1 voltage output+
9	lin 2 channel 2 current input
10	Vout2+ channel 2 voltage output+
11	lin 3 channel 3 current input
12	Vout3+ channel 3 voltage output+

Wiring diagram of current source application



Current source input pin description

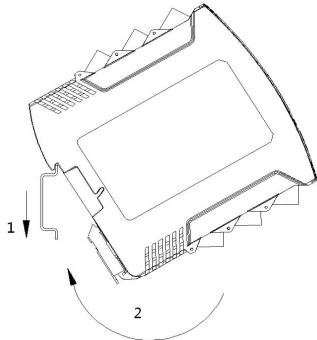
PIN	Description (3 IN 3 OUT)
1	Si3- signal 3 input-
2	Si3+ signal 3 input+
3	Si2- signal 2 input-
4	Si2+ signal 2 input+
5	Si1- signal 1 input-
6	Si1+ signal 1 input+
7	So1- signal 1 output-
8	So1+ signal 1 output+
9	So2- signal 2 output-
10	So2+ signal 2 output+
11	So3- signal 3 output-
12	So3+ signal 3 output+

Installation & disassembly

Installation

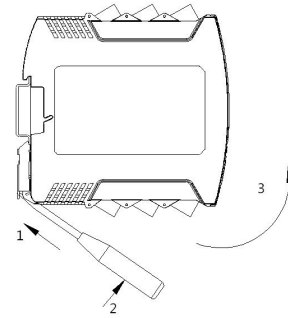
DIN35mm standard rail installation

1. Insert the top of the instrument card in the rail;
2. Push the bottom of the instrument into the rail

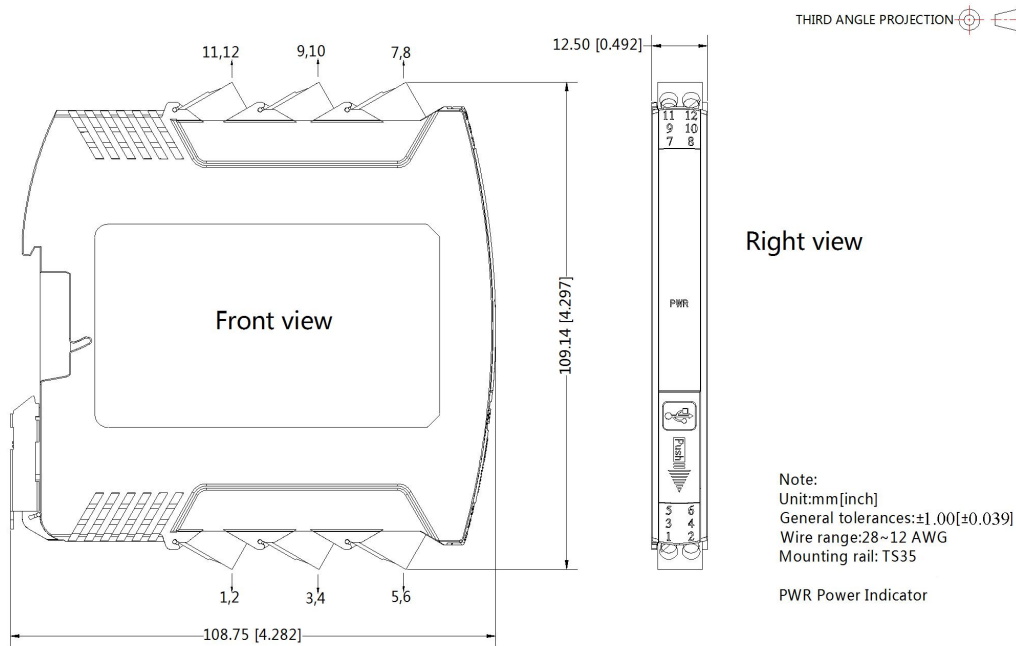


Disassembly

1. Insert to the clamp on the lower end of instrument with a screw driver (tool edge width $\leq 6\text{mm}$);
2. Push the screw driver up, and pry the clamp down;
3. Pull the instrument up out of the guide rail.



Dimensions



Note:

1. Packing information please refer to Product Packing Information which can be downloaded from www.mornsun-power.com. Packing bag number: 58040010;
2. Unless otherwise specified, data in this datasheet should be tested under the conditions of $T_a=25^\circ\text{C}$, humidity<75%. The nominal power supply, can be measured when the input signal at full range and output signal at rated load;
3. All index testing methods in this datasheet are based on our Company's corporate standards;
4. The performance indexes of the product models listed in this manual are as above, but some indexes of non-standard model products will exceed the above-mentioned requirements, and please directly contact our technician for specific information;
5. We can provide product customization service;
6. Products are related to laws and regulations: see "Features" ;
7. Our products shall be classified according to ISO14001 and related environmental laws and regulations, and shall be handled by qualified units.

Mornsun Guangzhou Science & Technology Co., Ltd.

Address: No. 5, Kehui St. 1, Kehui Development Center, Science Ave., Guangzhou Science City, Luogang District, Guangzhou, P. R. China
 Tel: 86-20-38601850-8801 Fax: 86-20-38601272 E-mail: info@mornsun.cn