

12.5mm slim case passive signal isolations



FEATURES

- Isolation test voltage of 2000VAC for signal input to output
- Ultra-slim 12.5mm case
- High accuracy (0.1% Full Scale)
- High linearity (0.1% Full Scale)
- Extremely low temperature coefficient (35PPM/°C)
- Proven reliability with MTBF >500,000 hour

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. The 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: The customer must define type of input signal, measuring range and form of output signal when placing the order; customizations are available on request.

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
Signal Precision		0.1% Full Scale(Output loop circuit power supply accuracy: 0.3% Full Scale)
Zero Offset		0.1% Full Scale
Response Time		<0.5s
Temperature Coefficient	Operating temperature range of -25°C ~ +71°C	35PPM / °C

General Specifications

Item	Operating Conditions	Value
Electric Isolation	Electric strength test for 1 minute with a leakage current of ≤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

Mechanical 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. Carefully read and follow the instructions before use; contact our technical support if you have any question;
2. Do not use the product in hazardous areas;
3. Use DC power supply for the product. and 220V AC power supply is prohibited;
4. Do not dismantle the product in order to avoid loss of warranty, product failure or malfunction.

After-sales service

1. Factory inspection and quality control are strictly enforced before shipping any product; please contact your local representative or our technical support if you experience any abnormal operation or possible failure of the module;
2. The products have a 3-year warranty period, from the date of shipment. The product will be repaired or exchanged free of charge within the warranty period for any quality problem that occurs under normal use.

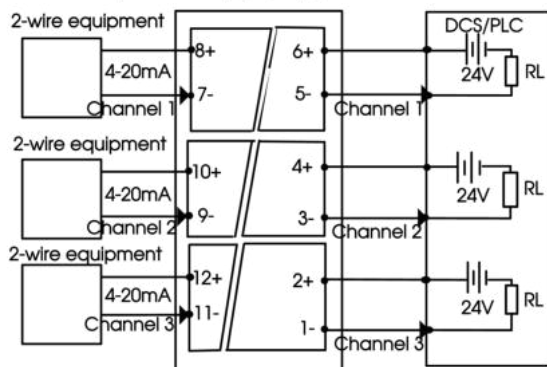
APPLICATION CIRCUIT

Refer to the a Application Guide to Isolation Transmitter.

Design Reference

1. Wiring diagram and connection

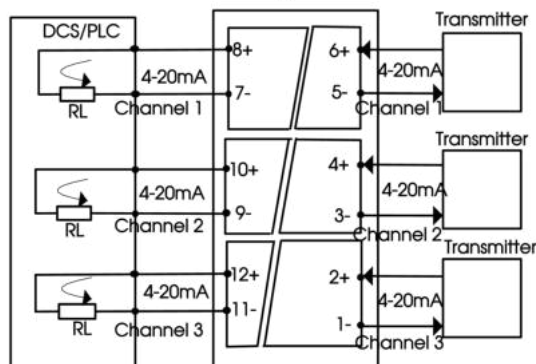
Wiring diagram of output loop circuit
power supply application



Output loop circuit of power supply pin description

PIN	Description (3 IN 3 OUT)
1	Iout3 channel 3 current output
2	Vin3+ channel 3 power input+
3	Iout2 channel 2 current output
4	Vin2+ channel 2 power input+
5	Iout1 channel 1 current output
6	Vin1+ channel 1 power input+
7	Iin1 channel 1 current input
8	Vout1+ channel 1 voltage output+
9	Iin2 channel 2 current input
10	Vout2+ channel 2 voltage output+
11	Iin3 channel 3 current input
12	Vout3+ channel 3 voltage output+

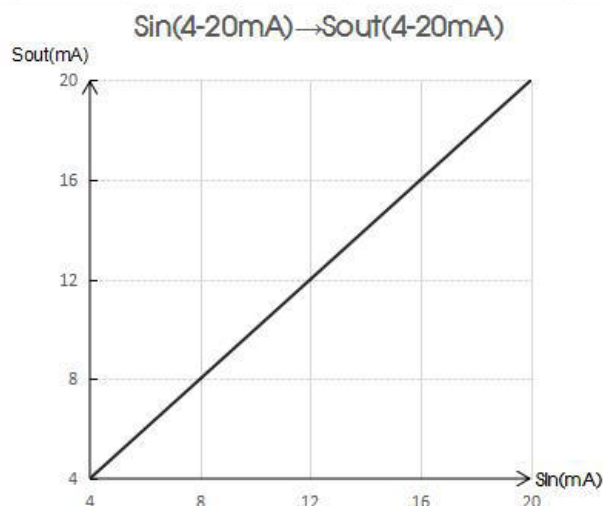
Wiring diagram of current
source application



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+

2. Signal input and output correspondence diagram(Ideal state)

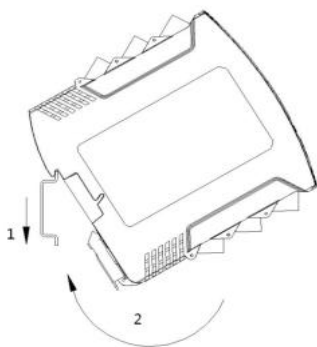


Installation & Removal

Installation

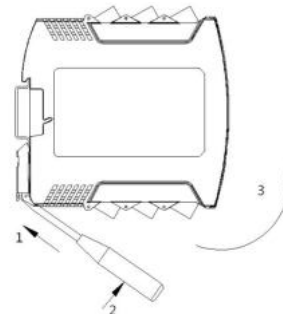
Standard 35mm DIN rail installation:

1. Insert top of Module into DIN rail;
2. Push bottom of Module into rail until it snaps in.

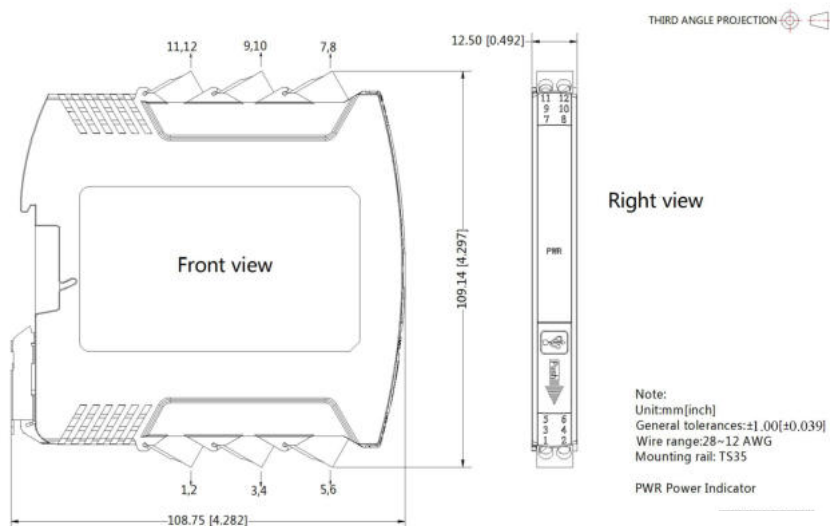


Removal

1. Insert screw driver on the lower end of Module to release clamp (tool edge width $\leq 6\text{mm}$);
2. Push screw driver up towards Module to slide clamp out;
3. Pull Module up and out of guide rail.



Dimensions



Note:

1. For additional information on Product Packaging please refer to www.mornsun-power.com. The Packaging bag number: 58040010;
2. Unless otherwise specified, parameters in this datasheet were measured under the conditions of Ta=25℃, humidity<75%RH with nominal input voltage and rated output load;
3. All index testing methods in this datasheet are based on company corporate standards;
4. The above are the performance indicators of the product models listed in this datasheet. Some indicators of non-standard models will exceed the above requirements. For details, please contact our technical staff;
5. We can provide product customization service, please contact our technicians directly for specific information;
6. Products are related to laws and regulations: see "Features" and "EMC";
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, Huangpu District, Guangzhou, P. R. China
Tel: 86-20-38601850 Fax: 86-20-38601272 E-mail: info@mornsun.cn www.mornsun-power.com