

Passive High Precision Isolated Transmitter
Current signal input & Current signal output



Patent Protection  

FEATURES

- 2-port isolation (Between signal input and signal output)
- High accuracy (0.1% F.S.)
- High linearity (0.1% F.S.)
- High isolation voltage(3KVDC/60s)
- Low voltage-drop(3V typ: @ 20mA input)
- Extremely low temperature coefficient (35PPM/°C)
- Industrial grade (operating temperature range: -25°C to +71°C)
- High reliability (MTBF >500,000 hours)
- EN60950 approval

T1100L is a standard analog isolation transmitter, with 4-20mA current signal input and 4-20mA current signal output, is a passive signal isolation module. Adopting unique electromagnetism isolation design and high efficiency loop electric-larceny technology, independent power supply is not required for the module, realizing 4-20mA standard signal isolation with high accuracy and linearity. Besides, the modules have extremely low temperature drift (no more than 35ppm/°C under -25°C to +71°C). The isolation voltage between the input and output can be up to 3KVDC.

Selection Guide

Certification	Part No.	Power Supply input	Input Signal	Output Signal	Isolation Power Output	Channels	Package
CE	T1100L	None	4-20mA	4-20mA	None	1	SIP12

Notes: Customization products are available if required.

Input Specifications

Item	Operating Conditions	Value
Power Supply Input	Power Supply	None
	Input power	None
	Power supply protection	None
Signal Input	Input signal	4-20mA
	Maximum continuous over range	≤50mA
	Voltage Drop-out @20mA	3V (Typ.)

Output Specifications

Item	Operating Conditions	Value
Signal Output	Output signal	4-20mA
	Load capacity @20mA	≤300Ω
	Load Regulation	<0.05% meas.val./100Ω

Transmission Specifications

Item	Operating Conditions	Value
Zero Offset		0.1%F.S.
Signal Precision		0.1%F.S.
Temperature Coefficient	Operating temperature range: -25°C to +71°C	0.0035%F.S./°C

General Specifications

Item	Operating Conditions	Value
Electric Isolation		Two-port isolation (signal input and signal output)
Isolation Voltage	Testing for 1 minute, leakage current <1mA, humidity <70%	3KVDC
Insulation Resistance	500VDC(signal input and signal output)	100M Ω
Operating Temperature		-25 $^{\circ}$ C to +71 $^{\circ}$ C
Transportation and Storage Temperature		-50 $^{\circ}$ C to +105 $^{\circ}$ C
Safety Standard		EN60950
Safety Certification		EN60950
Safety Class		CLASS III
Application Environment		The presence of dust, fierce vibration, impulsion and corrosive gas may cause damage to the product

Physical Specifications

Casing Material	Black flame-retardant and heat-resistant plastic
Package	SIP 12
Weight	8g (Typ.)
Cooling Method	Free air convection

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. Unless otherwise specified, data in this data sheet should be tested under the conditions of Ta=25 $^{\circ}$ C, humidity<75% when outputting rated load;
4. Do not dismount and assemble the product without permission to avoid failure or malfunction of equipment.

After-sales service

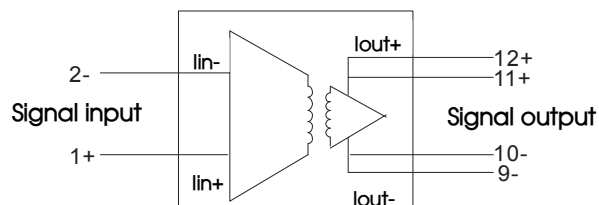
1. Ex-factory inspection and quality control have been strictly conducted for the product; if there occurs abnormal operation or possibility of failure of internal module, please contact the local representative or our technical support.
2. The warranty period for the product is 3 years as calculated from the date of delivery. If any quality problem occurs under normal use within the warranty period, the product can be repaired or changed for free.

Applied circuit

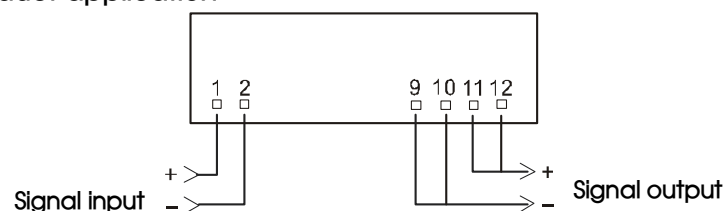
See *Application Notes for Isolated Transmitter* for details.

Design Reference

1. Schematic diagram

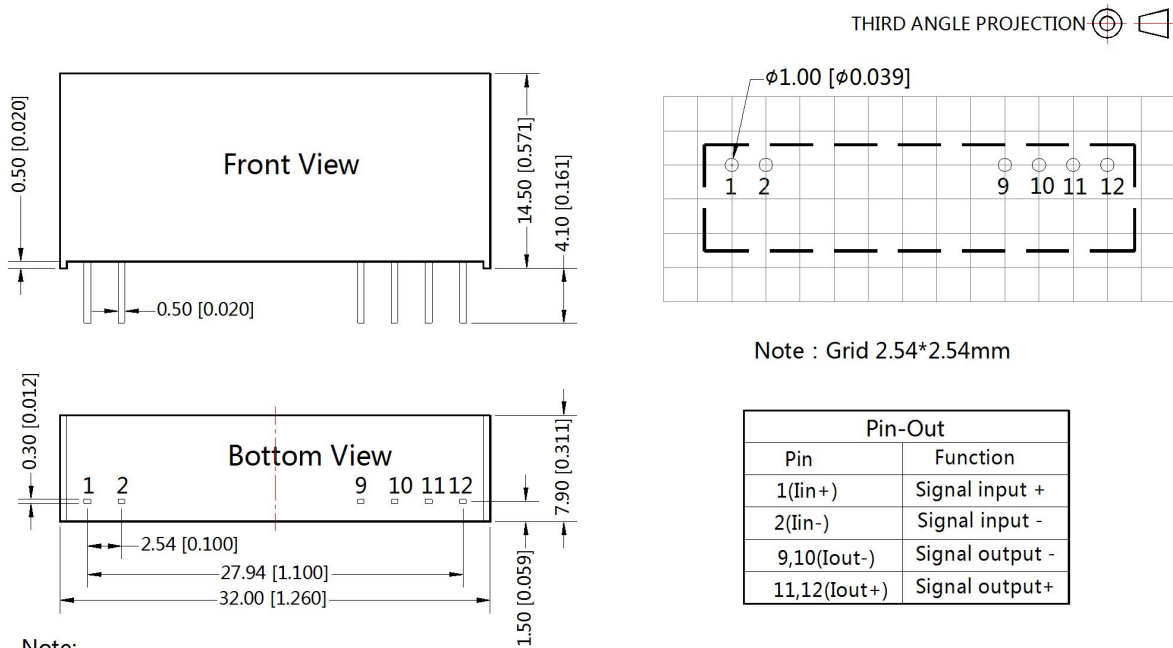


2. Wiring diagram for product application



3. For more information please find the application notes on www.mornsun-power.com

Dimensions and Recommended Layout



Pin-Out	
Pin	Function
1(Iin+)	Signal input +
2(Iin-)	Signal input -
9,10(Iout-)	Signal output -
11,12(Iout+)	Signal output +

Note:
 Unit:mm[inch]
 Pin section tolerances:±0.10[±0.004]
 General tolerances:±0.50[±0.020]

Notes:

1. Packing information please refer to Product Packing Information which can be downloaded from www.mornsun-power.com. Packing bag number: 58210017;
2. All index testing methods in this datasheet are based on our Company's corporate standards;
3. The performance indexes of the product models listed in this datasheet 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;
4. We can provide product customization service;
5. Specifications of this product are subject to changes without prior notice.

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