

# MORNSUN®

## PASSIVE SIGNAL ISOLATION TRANSMITTER

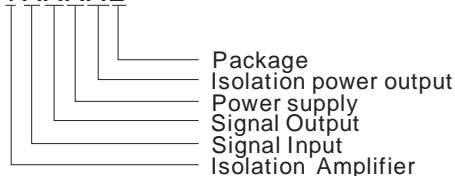
### lin & lout

——T1100L



### PART NUMBER SYSTEM

TXXXXL



### 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: @ input=20mA)
- Extremely low temperature drift (35PPM/°C)
- Industry standard(Operating Temperature Range: -25°C ~ 71°C)
- High reliability(MTBF>500,000 hours)

### GENERAL DESCRIPTION

T1100 series, 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~ +71°C). The isolation voltage between the input and output can be up to 3KVDC.

### SELECTION GUIDE

Model	Power Supply	Input	Output	Isolation Power Output	Channels	Package
T1100L	NONE	4~20mA	4~20mA	NONE	1	SIP12

### ELECTRICAL CHARACTERISTICS

Power Supply	Power Supply	None
	Power Consumption	None
	Power Protection	None
Input	Input Signal	4~20mA
	Overload	≤50mA
	Voltage Drop-out	Typ: 3V(@input = 20mA)
Output	Output Signal	4~20mA
	Load Capacity	≤300Ω (At output = 20mA)
	Load Regulation	<0.05% meas.val./100Ω

### TRANSMISSION CHARACTERISTICS

Zero Offset	0.1%F.S.
Gain Error	0.1%F.S.
Temperature drift coefficient	0.0035%F.S./°C(-25°C ~ +71 °C)

### ISOLATION SPECIFICATIONS

Electrical Isolation	Two-port isolation(Between signal input and signal output)
Isolation Voltage	3KVDC (Tested for 1minute and leakage current < 1mA, humidity < 70%)
Insulation Resistance	100MΩ,500VDC(Between input and output)

### OTHER CHARACTERISTICS

Ambient Temperature	Operation temperature:-25°C ~ +71°C
	Transport and Storage temperature:-50°C ~ +105°C
Package	SIP12
Weight	8g, typ
Application Environment	No dust, fierce vibration, impulsion and corrosive gas

**Note:**

1. All specifications measured at TA=25°C, humidity<75%, the value of nominal input and rated output load unless otherwise specified.
2. Only typical models listed, specifications of custom product may be different. Please contact our service people directly for certain conditions.

**NOTICE**

1. Please read the user manual carefully before using. If any question please contact our FAE.
2. Please do not use this product in hazardous area.
3. To avoid invalid explosion protection function, or any failure, disassembling this product is forbidden.

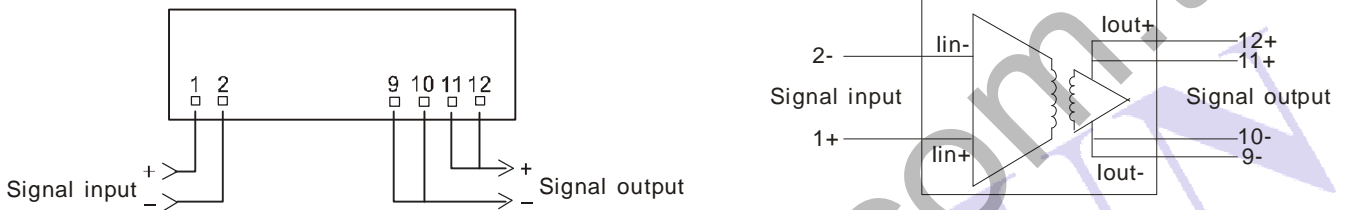
**AFTER-SALES SERVICE**

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**

You can see " A APPLICATION GUIDE TO ISOLATION TRANSMITTER".

**APPLICATION CIRCUIT DIAGRAM & SCHEMATIC DIAGRAM**



**PACKAGING SIZE AND PIN DESCRIPTION**

MECHANICAL DIMENSIONS		RECOMMENDED FOOTPRINT DETAILS													
<table border="1"> <thead> <tr> <th colspan="2">PIN CONNECTION</th> </tr> <tr> <th>Pin</th> <th>Function</th> </tr> </thead> <tbody> <tr> <td>1 (lin+)</td> <td>Signal input+</td> </tr> <tr> <td>2 (lin-)</td> <td>Signal input-</td> </tr> <tr> <td>9,10 (lout-)</td> <td>Signal output-</td> </tr> <tr> <td>11,12 (lout+)</td> <td>Signal output+</td> </tr> </tbody> </table> <p>Note: Unit:mm[inch] Pin section tolerances:±0.10[±0.004] General tolerances:±0.25[±0.010]</p>		PIN CONNECTION		Pin	Function	1 (lin+)	Signal input+	2 (lin-)	Signal input-	9,10 (lout-)	Signal output-	11,12 (lout+)	Signal output+	<p><b>TUBE PACKAGING DIMENSIONS</b></p> <p>Note: Unit :mm[inch] General tolerances: ± 0.50[± 0.020] L=530[20.866] Tube Quantity: 15pcs L=220[8.661] Tube Quantity: 6pcs Inner carton(S): L*W*H=255*170*80 Outer carton(S): L*W*H=375*280*270, 6 inner cartons(S) Inner carton(L): L*W*H=580*200*10 Outer carton(L): L*W*H=600*215*220, 2 inner cartons(L) Outer carton(L): L*W*H=600*215*325, 3 inner cartons(L)</p>	
PIN CONNECTION															
Pin	Function														
1 (lin+)	Signal input+														
2 (lin-)	Signal input-														
9,10 (lout-)	Signal output-														
11,12 (lout+)	Signal output+														
THIRD ANGLE PROJECTION		1100009103-A0													

**Note:**

1. All specifications are measured at Ta=25°C, humidity<75%, the value of nominal input and rated output load unless otherwise specified.
2. In this datasheet, all the test setup and methods are based on our corporate standards.
3. All characteristics are for listed models, and non-standard models may perform differently. Please contact our technical support for more detail.
4. Contact us for your specific requirement.
5. Specifications are subject to change without prior notice.

**MORNSUN 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

Fax:86-20-38601272

E-mail: [info@mornsun.cn](mailto:info@mornsun.cn)

[Http://www.mornsun-power.com](http://www.mornsun-power.com)