

# MORNSUN®

## PASSIVE LOOP-POWERED ISOLATION TRANSMITTER

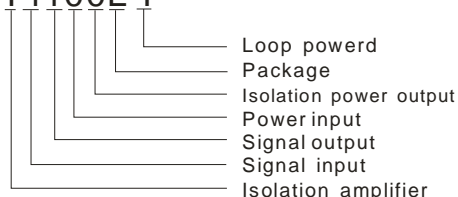
### lin & lout

——T1100L-F



### PART NUMBER SYSTEM

T1100L-F



### FEATURES

- | Loop-powered with Over-current Protection
- | Accuracy(0.1% F.S.)
- | High linearity (0.3% F.S.)
- | High isolation voltage(3KVDC/60s)
- | Extremely low temperature drift(35PPM/°C)
- | High reliability(MTBF>500,000 hours)

### GENERAL DESCRIPTION

T1100L-F Isolation transmitter is a kind of two-wire loop-powered isolation module. The output device could receive the signal from input instrument also powered the input instrument through T1100L-F. 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 it match to kinds of equipment mod-ule input attachment (PLC/DCS act); Over-current Protection is designed to protect the isolation module and the latter circuit; Besides, the module have extremely low temper-ature 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	loop Power Supply Voltage	Maximum loop Power Supply Voltage*	Input	Output	Channels	Package
T1100L-F	10~30V	40V	4~20mA	4~20mA	1	SIP12

Note: \*Exceeding the maximum loop power supply voltage will damage the product.

### ELECTRICAL SPECIFICATIONS

Input	Input Signal	4~20mA
	Input Over-voltage	≤30mA (Over-current Protection)
	Voltage Drop-out	Type: 5V(@input = 20mA)
Output	Output Signal	4~20mA
	With Load Ability	$R_L \leq (U_s - 5) / 0.02$ Us: loop power supply voltage
	Load Regulation	0.05%F.S./100Ω

### TRANSMISSION SPECIFICATIONS

Zero Offset	0.3%F.S.
Gain Error	0.3%F.S.
Temperature drift coefficient	0.0035%F.S./°C(-25°C ~ +71°C)

### ISOLATION SPECIFICATIONS

Galvanic Isolation	Two-port isolation (Between signal input and signal output)
Isolation Voltage	3KVDC(Tested for 1 minute, leakage current<1mA, humidity<70%)
Insulation Resistance	100MΩ,500VDC (Between signal input and signal 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. All characteristics are meant for listed model, non-standard models may perform differently, you can contact MORNSUN FAE for more details.

**NOTICE**

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

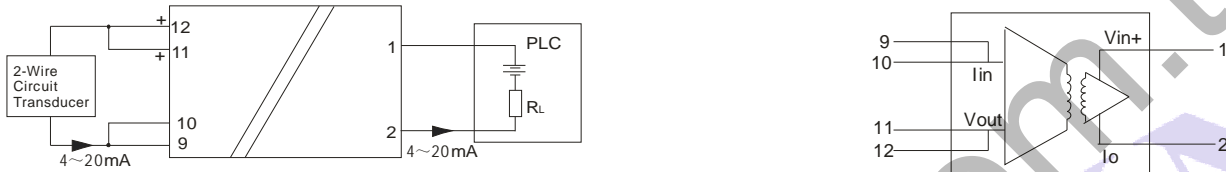
**AFTER-SALES SERVICE**

1. Products are carefully inspected and quality control during production and before shipment. If they operated abnormally or there were anything wrong, please contact our agent where 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 CIRCUITS**

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

**APPLICATION CIRCUIT DIAGRAM & SCHEMATIC DIAGRAM**



**PACKAGING SIZE AND PIN DESCRIPTION**

MECHANICAL DIMENSIONS		RECOMMENDED FOOTPRINT DETAILS													
<p>Note:</p> <p>Unit:mm[inch]</p> <p>Pin section tolerances:±0.10[±0.004]</p> <p>General tolerances:±0.50[±0.020]</p>		<p>Note : grid : 2.54*2.54mm</p>													
<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(Vin+)</td> <td>Power input</td> </tr> <tr> <td>2(Io)</td> <td>Current output</td> </tr> <tr> <td>9,10(Iin)</td> <td>Current input</td> </tr> <tr> <td>11,12(Vout)</td> <td>Power output</td> </tr> </tbody> </table>		PIN CONNECTION		Pin	Function	1(Vin+)	Power input	2(Io)	Current output	9,10(Iin)	Current input	11,12(Vout)	Power output	<p><b>TUBE PACKAGING DIMENSIONS</b></p>	
PIN CONNECTION															
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1(Vin+)	Power input														
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<p>THIRD ANGLE PROJECTION</p>		<p>Note:</p> <p>Unit :mm[inch]</p> <p>General tolerances: ± 0.50[± 0.020]</p> <p>L=530[20.866] Tube Quantity: 15pcs</p> <p>L=220[8.661] Tube Quantity: 6pcs</p> <p>Inner carton(S): L*W*H=255*170*80</p> <p>Outer carton(S): L*W*H=375*280*270, 6 inner cartons(S)</p> <p>Inner carton(L): L*W*H=580*200*100</p> <p>Outer carton(L): L*W*H=600*215*220, 2 inner cartons(L)</p> <p>Outer carton(L): L*W*H=600*215*325, 3 inner cartons(L)</p>													
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**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.

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