MORNSUN

PASSIVE SIGNAL AMPLIFIER Iin&Iout

T1100RN/RS/N/S



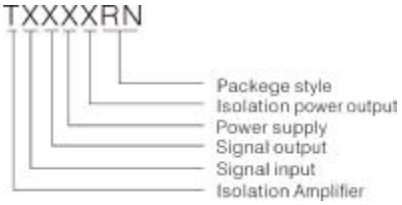
DESCRIPTION

T1100 series, a standard analog amplifier, with anterior circuit 4-20mA current signal input and posterior 4-20mA current signal output ,is a passive signal isolation module .the series adopt magneto design and high efficiency loop electric-larceny technology ,efficiently reducing the reliance of current signal isolation on the power ,realize 4-20mA standard signal isolation with high accuracy and line regulation. Besides, the modules have extremely low temperature drift (no more than 35ppm/℃ under -25°C to +71 °C) .The isolation voltage between the input and output can up to 3KVDC.

FEATURES

- Two-port isolation（Between input and output）
- High accuracy (0.1% F.S.)
- High linearity (0.1% F.S.)
- Isolation voltage(3000VDC/60S)
- Low voltage-drop(At 20mA<3V)
- High frequency response(15KHz)
- Extremely low temperature(35PPM/°C)
- Industry standard(Operating Temperature Range:-25°C to 71°C)
- High reliability(MTBF＞500,000 hours)

MODEL SELECTION



PRODUCT PROGRAM

Part Number	Power Supply	Input	Output	Isolation Power Output	Channels	Package
T1100RN	None	4-20mA	4-20mA	None	1	DIP16
T1100RS	None	4-20mA	4-20mA	None	1	SOIC16
T1100N	None	4-20mA	4-20mA	None	1	DIP16
T1100S	None	4-20mA	4-20mA	None	1	SOIC16

ELECTRICAL CHARACTERISTICS

Power Supply Data	Power Supply	None
	Power Dissipation	None
	Power Protection	None
Input Data	Input Signal	4 -20mA
	Input Impedance	Voltage Drop≤250mV(At input signal=20mA)
	Overload	≤300mA
	Voltage Drop	<3V(20mA)
Output Data	Output Signal	4 -20mA
	Load	≤300Ω（At output Signal=20mA）
	Load Regulation	＜0.05% meas.val./100Ω

TRANSMISSION CHARACTERISTICS

Offset	0.1%F.S.
Gain Error	0.1%F.S.
Temperature Drift	0.0035%F.S./°C(-25°C to +71°C)

ISOLATION CHARACTERISTICS

Galvanic Isolation	Two-port isolation（Between input and output）
Isolation Voltage	3KVDC (Tested for 1minute and 1mA max, humidity < 70%)
Insulation Resistance	1000MΩ,500VDC（Between input and output）

OTHER CHARACTERISTICS

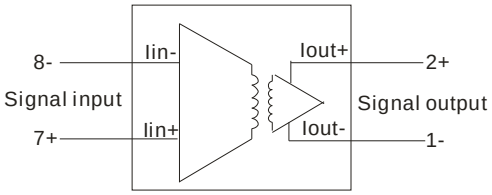
Ambient temperature	Operation temperature:-25 to +71°C
	Transport and Storage temperature:-50 to +105°C
Package	DIP16/SOIC16
Weight	About 8g
Application Environment	No dusts, gases of fiercely vibration, impulsion or gases that may erode to the components surrounded

Note:
1. All specifications measured at TA=25°C, humidity<75%, nominal input voltage 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.

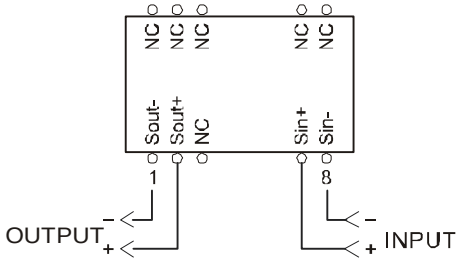
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SCHEMATIC DIAGRAM



APPLICATION CIRCUIT DIAGRAM



APPLICATION NOTE

1. Please read instruction book carefully before using the product. If you have any question, please contact with our technical support.
2. Please don't install in the dangerous zone.
3. Don't divide the product privately in case the equipments ineffective or go wrong.

AFTER SERVICE

1. Products are carefully inspected and controlled before going out from our factory. If they operated abnormally or there were anything wrong in the inner parts, please contact with our agents near you or technical support in our company as soon as possible.
2. 3 years warranty since the delivery date. During the period of quality guarantee, our company will repair or change free of charge if product has any quality problem in the process of normally using.

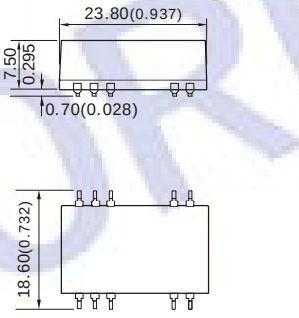
APPLICATION CIRCUITS

See *A GUIDE TO INSTRUMENTATION ISOLATION AMPLIFIERS* for more detail.

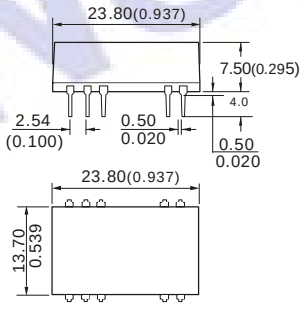
PACKAGING SIZE AND TERMINAL DESCRIPTION

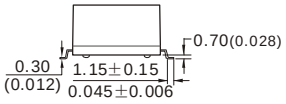
First Angle Projection

T1100RS/S SOIC16 Package

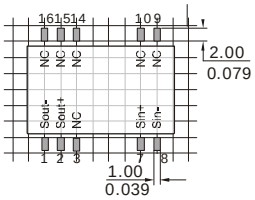


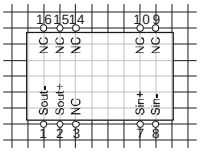
T1100RN/N DIP16 Package





RECOMMENDED FOOTPRINT
*Top view,grid:2.54*2.54mm(0.1*0.1inch)*
diameter:1.00mm(0.039inch)





Pin Connection

PIN	FUNCTION
1(Sout-)	Output-
2(Sout+)	Output+
7(Sin+)	Input+
8(Sin-)	Input-
Others	NC

NC:No Connection

Note:
Unit:mm(inch)
Pin section:0.50*0.30mm(0.020*0.012inch)
Pin section tolerances:±0.10mm(±0.004inch)
General tolerances:±0.25mm(±0.010inch)

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