Descriptions

Signal conditioning modules



RoHS

CE Report EN62368-1

UKCA Report BS EN62368-1

Features

- Self-powered, over-current protection
- High accuracy of 0.3% Full Scale
- High linearity of 0.1% Full Scale
- Isolation test voltage 3kVDC for 60s
- Extremely low temperature coefficient of 35ppm/℃
- Industrial grade (Operating ambient temperature range -25℃ to +71℃)
- High reliability with MTBF >500,000 hours

Applications

- PLC and DCS systems

Selection Guide

Certification	Part No.	Loop Power Supply Voltage	Input Signal	Output Signal	Channels	Package
EN/BS EN	TR1100L-F	10-24V	4-20mA	4-20mA	1	SIP12

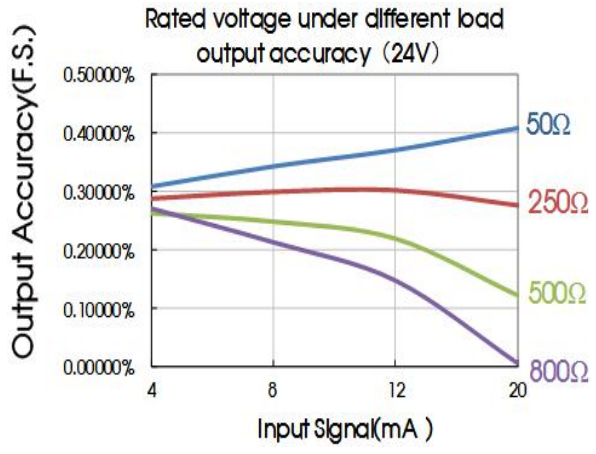
Notes: *Product images are for reference only; the actual product shall prevail.

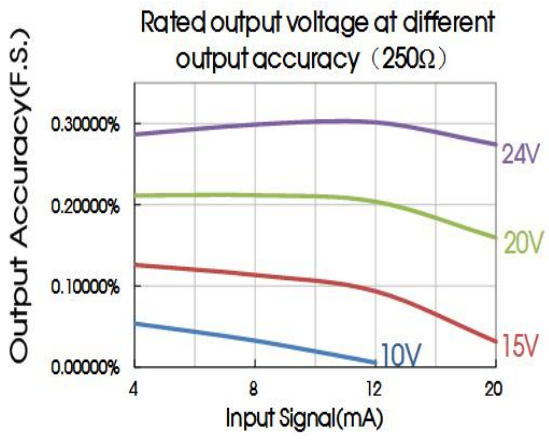
Specifications

Product Specifications	Item	Operating Conditions	Value
Input Specifications	Signal Input	Input signal	4-20mA
		Maximum continuous over range	≤30mA (with Over-current Protection)
		Voltage drop-out @20mA	5V (Typ.) @20mA
Output Specifications①	Signal Output	Output signal	4-20mA
		Load capacity	RL≤(Vin-7)/0.02, 800Ω(Max.) Us：Loop supply voltage
		Load Regulation	0.1%Full scale/100Ω
Transmission Specifications②	Zero Offset	250Ω/0.01uF	0.3%FS (Typ.)
	Signal Precision	250Ω/0.01uF	0.3%FS (Typ.)
	Temperature Coefficient	Operating temperature range: -25℃ to +71℃	0.0035%FS/℃
General Specifications	Electric Isolation	Two-port isolation (signal input and signal output)	
	Isolation Test	Electric strength test for 1 minute with a leakage current of <1mA, humidity <70%RH	3kVDC
	Insulation Resistance	At 500VDC (signal input and signal output)	100MΩ
	Operating Temperature	-25℃ to +71℃	
	Transportation and Storage Temperature	-50℃ to +105℃	
	Safety Class	CLASS III	
	Application Environment	The presence of dust, severe vibration, shock and corrosive gas may cause damage to the product	
Mechanical Specifications	Case Material	Black plastic, flame-retardant heat- resistant	
	Package	SIP12	
	Weight	8.0g (Typ.)	
	Cooling Method	Free air convection	

Note:
①The typical output precision under different load conditions can be seen in the product characteristic curve diagram;
②The typical output precision under different power supply conditions can be seen in the product characteristic curve diagram.

Characteristic Curve





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 only DC power supply source for this product and 220V AC power supply is prohibited;
4. It is strictly forbidden to disassemble the product privately in order to avoid 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.

Design Reference

1. Schematic diagram

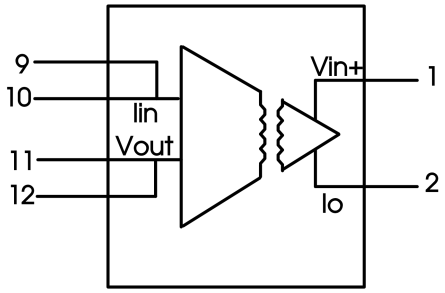


Fig. 1

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

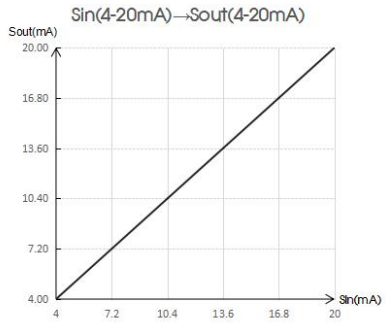


Fig. 2

3. Wiring diagram

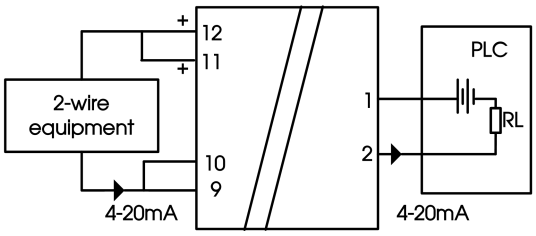
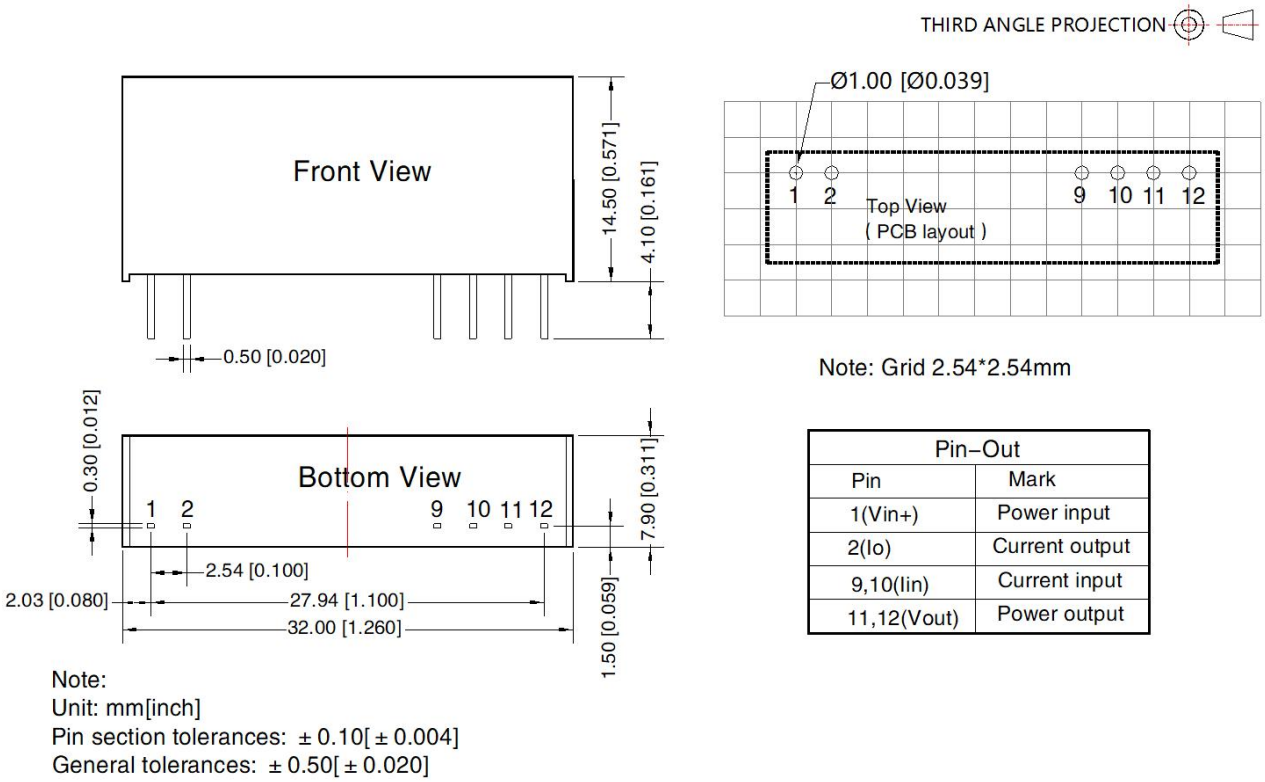


Fig. 3

Dimensions and Recommended



Pin–Out	
Pin	Mark
1(Vin+)	Power input
2(Io)	Current output
9,10(Iin)	Current input
11,12(Vout)	Power output

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

Notes:

1. 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;
2. All index testing methods in this datasheet are based on company corporate standards;
3. 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;
4. Products are related to laws and regulations: see "Features" and "EMC";
5. Our products shall be classified according to ISO14001 and related environmental laws and regulations, and shall be handled by qualified units.
6. The image certification marks are for reference only; please refer to the selection table for actual specifications. Certification is based on the physical mark or packaging label.