Thermal Resistance Isolation Transmitter

Features:

- Three-wire,four-wire or two-wire PT100 thermal resistance signal input
- Accuracy, Linearization error grade:0.2
- Linearization disposal and long line compensate circuit
- Isolation Voltage: 3000VDC input/power/output
- Power：5V、12V、15V or 24VDC
- International standard signal output：4-20mA/0-5V/0-10V etc.
- Small size,low cost
- Standard DIP 24 Pin,UL94V-0 fire
- Industrial temperature range: - 45 ~ + 85 ℃

Application:

- PLC/DCS systemic temperature signal isolation, acquisition.
- Industrial high accuracy temperature measurement
- Thermal resistance signa isolation and temperature control
- Ground-loop elimination
- Temperature sensor signal converter to standard signal
- Oil temperature measurement and alarm
- No distortion in long distance signal transmission
- Electric supervision,medical application and safe isolated bar.

Description:

ISO W-Z Series is a mixed integrate circuit that thermal resistance signal as temperature high/low isolation converter to linearity standard signal to temperature.It integrated a set of isolated DC/DC converters, Linearization disposal and long line compensate circuit,can bring two group of each other isolated power to input port for magnifying circuit,modulating circuit powered and output port demodulation.They can meet industrial wide temperature,humidity,shaky poor operation condition.

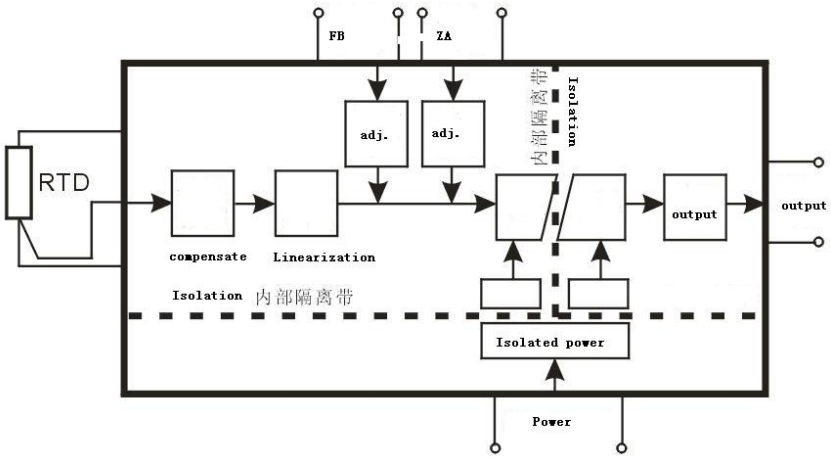


Figure 1 ISO Z-Wseries wiring diagram

Signal Isolated Amplifier Module

Operation Range(max)

If over above range,maybe cause products damaged permanently.

Continue isolation voltage value	3000VDC
Power Vin range:	±10%Vin
Jointing temperature(10sec.)	+300℃
Vout signal load(MIN)	2KΩ

Part number and description:

ISO Z□ - W□ - P□ - O□

Type

Z1: Pt100 Z2: Pt10

Z3: Cu100 Z4: Cu50

Input T Range

W1: -20-100℃

W2: 0-100℃

W3: 0-150℃

W4: 0-200℃

W5: 0-400℃

W6: User-defined

Power Supply

P1: DC24V P2: DC12V

P3: DC5V P4: DC15V P5: User-defined

Output Signal

O1: 4-20mA O2: 0-20mA O4: 0-5V O5: 0-10V

O6: 1-5V O7: User-defined

Examples:

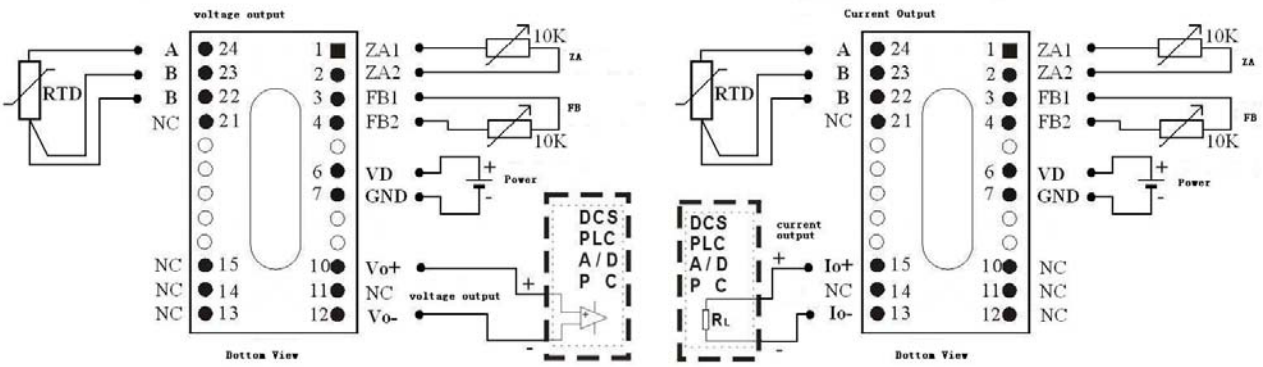
1. signal Input: Pt100,temperature range:0~100℃; signal output:4-20mA; power:24V
   Part No.: ISO Z1-W1-P1-O1
2. signal input: Cu50,temperature range:0~100℃;signal output:0-5V;power:12V
   Part No.: ISO Z4-W2-P2-O4

Technic parameter:

Parameter		Test Condition	Mix	Type	Max	Unit
Isolated voltage		1min	1500	3000		VDC
Non-linearity(to temperature)				0.2	0.5	%FSR
Output signal	Voltage			5	10	V
	Current			20		mA
Frequency response				10		mS
Load capability	Voltage	Vout=10V		2		kΩ
	current	Iout=20mA		500	650	Ω
Signal output ripple		No-filter		10		mV
Signal temperature drift				50		ppm/℃
Assistant power	Voltage	User-defined	3.3	12	24	VDC
	current	VD=12V		42		mA

Power loss		0.3	0.5	1	W
Operating temperature		-45		85	℃
Storage temperature		-55		125	℃

Physical Dimensions and Pin Description: (Figure 1)



Voltage output :

ZA1	ZA2	FB1	FB2	VD	GND	Vo+	NC	Vo-	NC	B	B	A
1	2	3	4	6	7	10	11	12	13,14,15,21	22	23	24

Current output:

ZA1	ZA2	FB1	FB2	VD	GND	NC	Io-	NC	Io+	NC	B	B	A
1	2	3	4	6	7	10,11,12	13	14	15	21	22	23	24

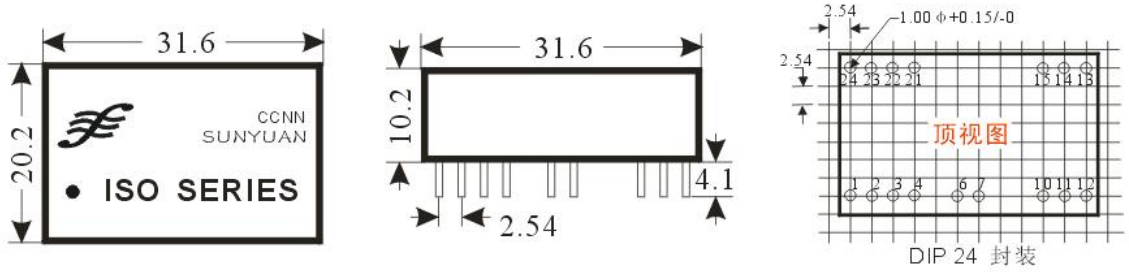
Note:1.all NC can not connect any external circuit.

2.Two wire signal input,PIN 22,23(input B) connect,four wires signal input,PIN 24 connects to any port of A.

3.Broken line test: a.output max. value:the line that connecting PIN22,23 is broken.

b. output min. value:the line that connecting PIN23 is broken.

ISO Size and PCB dimension(DIP 24)



Top View