

ISO 1002 Series Analog Small Signal Isolation Amplifier



ISO 1002 choose type:

ISO- 1002 Input ☐ -Power ☐ -Output ☐

Input rated voltage (or current)		Accessorial power supply P	Output
	U1: 0-10mV	P1: DC24V	O1: 4-20mA
	U2: 0-30mV	P2: DC12V	O2: 0~20mA
	U3: 0-50mV	P3: DC5V	O4:0~5V
	U4: 0-75mV	P4: DC15V	O5:0~10V
	U5: 0-100mV	P5: Customer choose	O6:1~5V
	U6:0~5V		O7: Customer choose
	U7:0~10V		
	U8: 0~100V		
	A1: 0-1mA		
	A2:0~10mA		

Characteristic:

- 0-10mV/0-20mV/0-50mV/0-75mV/0-100mV Small signal isolation amplification
- Efficiency grade: 0.1, 0.2
- Extremely high linearity in whole process (nonlinearity < 0.1%)
- Power, signal: Input/output 3000VDC isolation
- Extension Power: 12VDC or 24VDC Single power supply
- Two groups isolation power supply: 5VDC~24VDC
- Supply inlet 1.25V,outlet isolation 5V,accuracy 2% base voltage supply
- Small size, standard fire retarding package DIP 24PIN ,UL94V-0
- Industrial wide temperature : -45~+85 °C

Application:

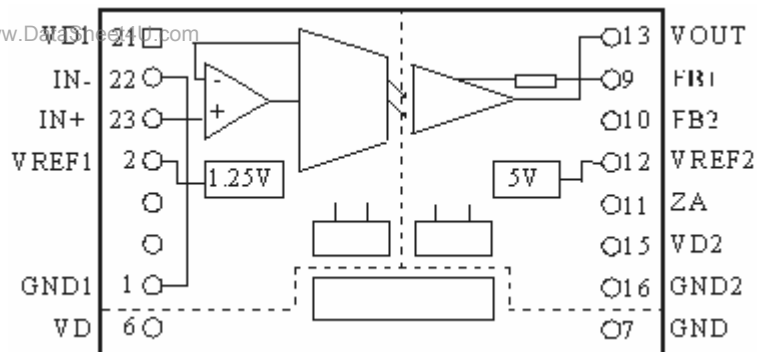
- Analog signal data acquisition, isolation ,transform
- Industrial signal isolation
- PLC & FA Motor Signal Isolation Control●
- Ground interference control
- Equipment and sensor signal acquisition
- No Current Signal Transmission
- No distortion in long-distance signal
- Electricity control, medical instrument isolated safe bar

Description:

SunYuan ISO 1002 Isolation amplifier is a mix integrated circuit that convert and isolate analog signal pro data. The IC integrates a high isolated DC/DC power supply and a high-powered isolated amplifier. It provides two groups of isolated power supply and two base voltage supplies for use of exterior circuit extending, like electric bridge circuit and other circuits. The ceramic base, SMD and new isolation technologies allow the IC for the 3KVDC insulated voltage input/output and meet the industrial level for the extremely poor temperature, humidity and shaking condition. ISO-1002 Isolation Amplifier IC is very easy to use; just a few external components are required.



www.DataSheet4U.com



View 1

Input Specification(Max)

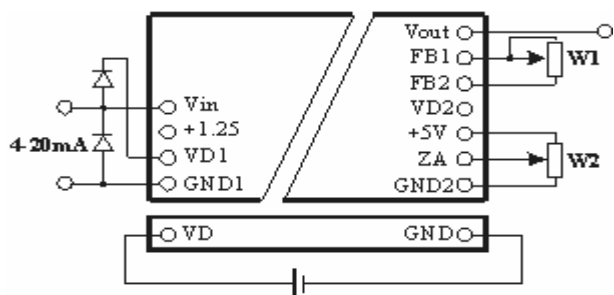
Continuous Isolation Voltage : 3000VDC

Power & Voltage Input Range: $\pm 20\%V_{in}$

Lead Temperature(10 nd): +300°C

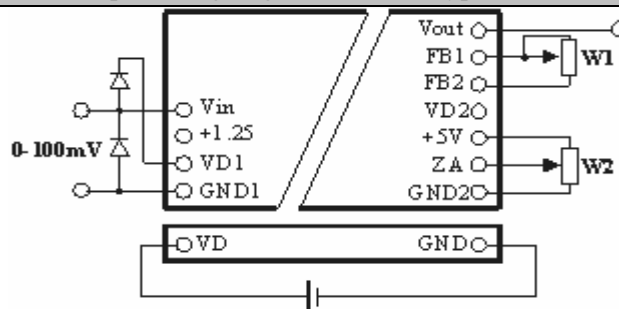
Output Load (Min): 1K Ω

Note: Input voltage above it may cause permanent damage to the device.

Description:**Input 4-20mA,ISO 1002 typical view (2)**

W1=100K, W2=20K potentiometer

Figure 2 Current input typical connection

Input voltage signal, ISO 1002 typical view

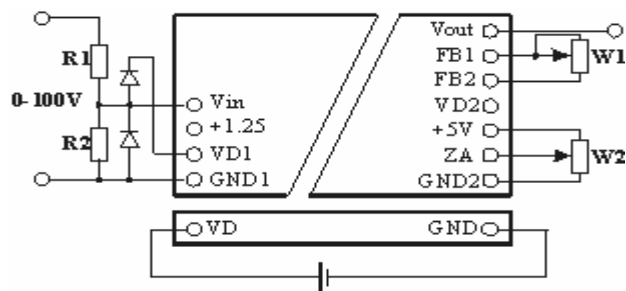
Input: 0~100mVDC

Output: 1~5VDC

W1=100K, W2=50K, adjust W2, make 0mV opposite to 1V output.

Adjust W1, make 100mV opposite to 5V output.

Figure 3 Voltage input typical connection

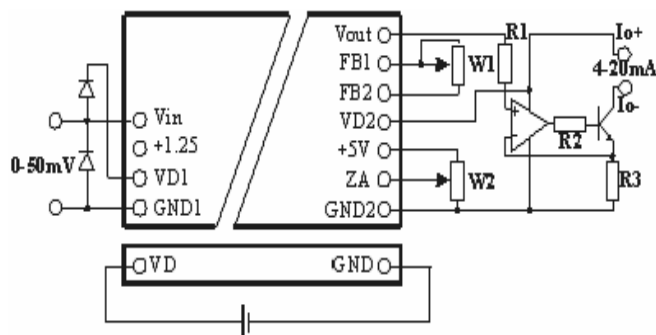


Picture 4 Measurement high voltage signal

Input: 0~100V, output: 0~5VDC

R1=100K, R2=1K, W1=100K

W2=20K



Picture 5 Small signal isolation amplification transmission

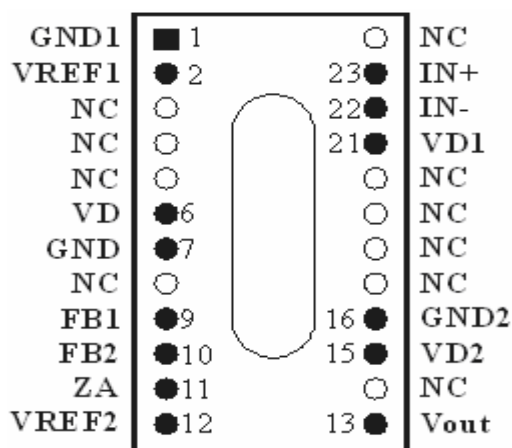
R1=10K, R2=1K, R3=100ohm, W1=100K, W2=50K, adjust W2, make 0mV opposite to 0.4V output. Adjust W1, make 50mV opposite to 2V output, opposite between I_{o+} and I_{o-} can reach 4-20mA.



Parameter:

www.DataSheet4U.com

Parameter Name		Test Condition	Min	Typical	Max	Units
Isolated Voltage		AC,50Hz,1min	1500	3000		V(rms)
Signal Input	Voltage		0.01	5	1000	V
	Current				24	mA
Increment		100k Potentiometer Regulation		1		V/V
Increment Temperature Drift				100		ppm/°C
Nonlinearity				0.2	0.5	%FSR
Input Tune Out Voltage				2	5	mV
Signal Output				5	10	V
Frequency Response		V in<1V	20			Hz
Load Capability		V out=10V	1			kΩ
Signal Output Ripple		No filter		10		mV
Signal Voltage Temperature Drift				25		μ V/°C
Reference Voltage Power		Output Current<5mA		5		V
						V
Output Current <2mA		1.25				VDC
	3.3	12	24			mA
VD=12V			25			V
Output Current<20mA			9			mV
No filter		10				°C
		-45		85		°C
		-55		125		



6 Pin Definition

Pin Description: (Reference Picture 6 : Pin Definition)

GND1	V _r ef	NC	VD	GND	NC	FB1	FB2	ZA	Vref2	VOUT	NC	VD2	GND2	NC	NC	VD1	IN-	IN+	NC
1	2	3,4,5	6	7	8	9	10	11	12	13	14	15	16	17,18	19,20	21	22	23	24



YUAN

ISO 1002 Series Analog signal Isolation Amplifier

www.DataSheet4U.com

Physical Dimensions and PCB Dimensions (Normal DIP24 Pin):

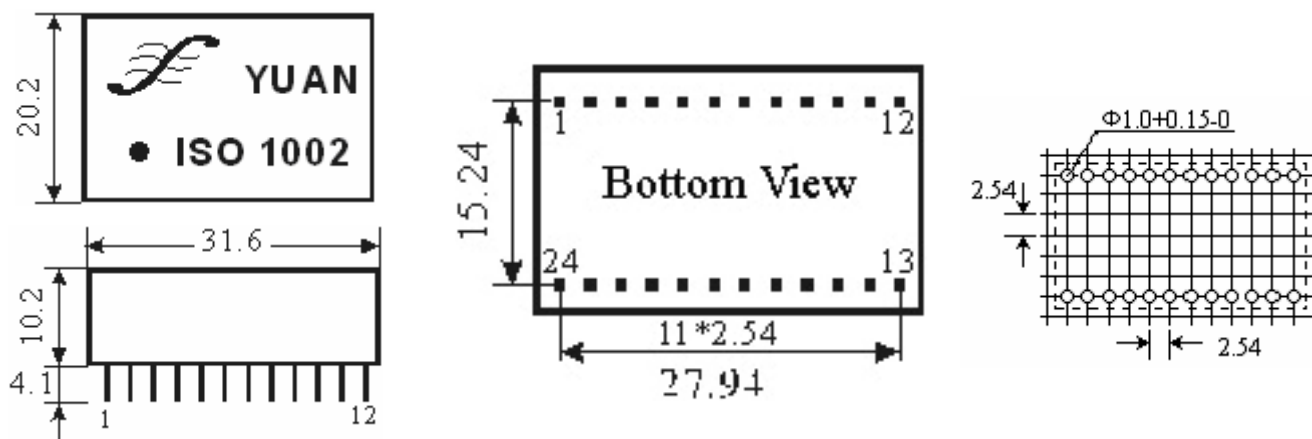


Photo:

Shenzhen Sunyuan Technology Co.,Ltd

E-mail:sales02@szsunyuan.com

MSN:sun-yuan03@hotmail.com

Skype:candyatsunyuan