

ISO-U(A)-P-O-S series: DC V/I Signal Isolated Distributor  
(Photoelectricity Isolation)



General characteristic:

- Low cost,small size,SIP 12 anti- fire UL94V-0 package
- Can adjust “Zero”and “Gain”
- Three-port (power/input/output) isolation:3000VDC
- Assistant power:5VDC/12VDC/15VDC/24VDC
- 0-5V/0-10Vvoltage signal or 0-10mA/0-20mA/4-20mA/ current signal isolation and transfer
- Input port with a isolated power supply
- with good anti-jamming and high frequency signal capability

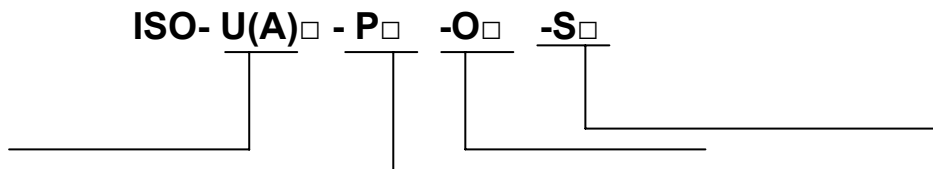
Applications:

- Two wires sensor distributor and signal transmission
- No distortion in long distance signal transmission
- Analog signal data acquisition
- 4-20mA(0-20mA)/0-5V signal isolation and transfer
- Equipment and sensor signal acquisition
- Signal transmit no-distortion
- Electric power,distant control,isolated safe bar
- Ground interference control

Specification:

ISO-U(A)-O series is a hybrid integrated circuit, this IC isolates and transfers DC signal signal,and make them linear correspondence to input signal.There is a isolated power supply on input port,and common ground with input signal.They are widely used in Electric power, distant control, instrument, medical instrument, and industrial control industries.

Part number and description:



Input signal	Accessorial power supply P	Output	Isolated P
U1:0-5V	P1:DC24V	O1:4-20mA	S1:9V
U2:0-10V	P2:DC12V	O2:0~20mA	S2:15V
U3:0-75mV	P3: DC5V	O4:0~5V	S3:24V
U4:0-2.5V	P4:DC15V	O5:0~10V	
U8: User-defined	P8: User-defined	O6:1~5V	
A1:0-1mA		O8:User-defined	
A2:0-10mA			
A3:0-20mA			
A4:4-20mA			
A8: User-defined			

Example:

1: Input 0-5V ; power supply:24VDC ,Output :0-5V Isolated power supply:15V

Part number: ISO-U1-P1-O4-S2

2.Input:4-20mA, power supply:24VDC,Output:4-20mA Isolated power supply:24V

Part Number:ISO-A4-P1-O1-S3

Max operation range:

Continue isolation voltage value	3000VDC
Power Vin range:	±25%Vin
Jointing temperature(10sec.)	+300℃
MIN Load(output voltage signal)	2K Ω

Note:If is over those range,products will be damaged permanently.

General parameter:

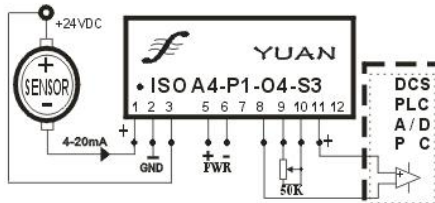
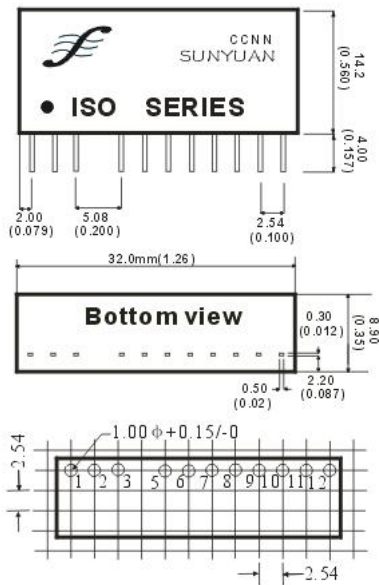
1

Parameter	Test Condition	Mix	Type	Max	Unit	
Isolated voltage	1min	3000			VDC	
Temperature drift			100		ppm/℃	
Non-linearity			0.1	0.2	%FSR	
Input signal	Voltage	0		15	V	
	Current	0		30	mA	
Input impedance	Voltage		1		M	
	Current		250		Ω	
Output signal	Voltage	0		15	V	
	Current	0		20	mA	
Load capability	Voltage	Vout=10V	2	*	kΩ	
	Current		500	750	Ω	
Isolated power supply output	Voltage		5	24	V	
	Current		20		mA	
	Ripple		50		mV	
	Accuracy		10		%	
Frequency response			1		KHz	
Signal output ripple	No-filter		10	20	mVRMS	
Assistant power	Voltage	User-defined	3.3	12	24	VDC
	Power loss		0.5	1	W	
Operating temperature		-45		85	℃	
Storage temperature		-55		105	℃	

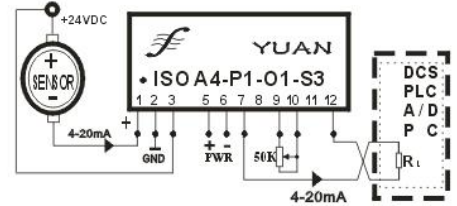
Output parameters:

Output item	Input over load	Response time
4-20mA	≤350 Ω (If need others,such as 650 ohm,pls note)	≤10mS
0-20mA		
0-5V	≥2K ohm	
0-10V		
1-5V		

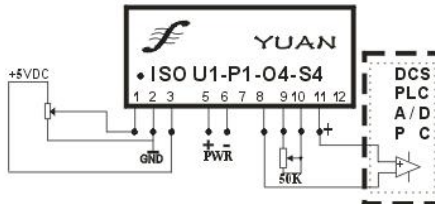
Physical Dimensions and Footprint Description:



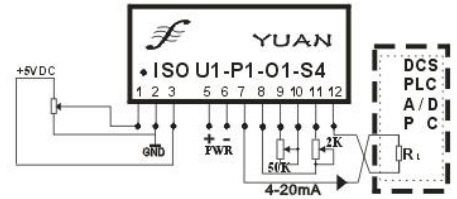
电流输入/电压输出 (I/V转换)



电流输入/电流输出 (I/I) 隔离



电压输入/电压输出 (V/V隔离)

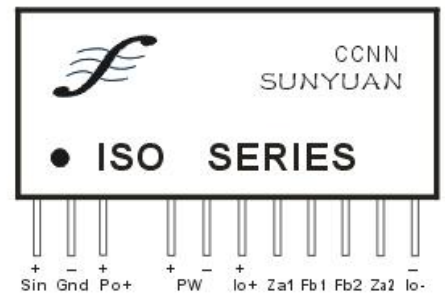
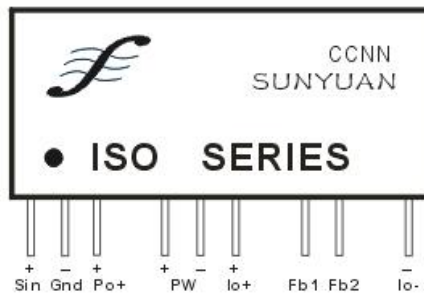
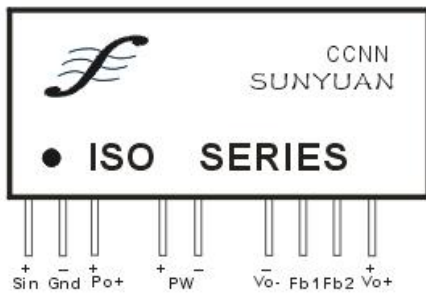


电压输入/电流输出 (V/I转换)

voltage signal output

current signal output

current output (with ZERO adj)



(1)voltage output footprint description:SIP 12

1	2	3	4	5	6	7	8	9	10	11	12
Vin+	GND	PO+	NO PIN	PW+	PW-	NO PIN	Vo-	50K	50K	Vo+	NO PIN

(2)Current output footprint description:SIP 12

1	2	3	4	5	6	7	8	9	10	11	12
Vin+	GND	PO+	NO PIN	PW+	PW+	lo+	NO PIN or 2K(ZERO)	Adj (50K)	Adj (50K)	NO PIN or 2K(ZERO)	lo-

Note: only 0-xV or 0-xmA (such as:0-5V/0-20mA) input, 4-20mA output products with ZERO adjustment.