

**6KV High Isolation DC Current/Voltage Single/Dual Signal Isolated Amplifier IC
(Electromagnetic Isolation)
ISOEMH Series**


General characteristics:

- Low cost, small size, SIP 16pin anti-fire UL94V-0 package
- No external component, need not "ZERO" and "G.adj" adjustment.
- Three-port (power/input/output) isolation: 6000VDC
- Assistant power supply: 5VDC/12VDC/15VDC/24VDC
- 0-75mV/0-2.5V/0-5V/0-10V/0-±100mV/0-±5V/0-±10V voltage
0-10mA/0-20mA/4-20mA/0-±10mA/0-±20mA current isolation and transfer
- Temperature range: -45~+85 °C
- In EMC (electromagnetism disturb) circumstance need adopt shield measure.

Applications:

- DC current/voltage signal isolated/transfer/amplifier
- No distortion in long distance signal transmission
- Rail-transit 750V/1500 voltage isolation and sampling.
- 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 monitoring and remote control.
- Ground interference control and high isolation

Model Selection:

ISOEMH - U(A)□ - P□ - O□

Input signal U/A	Auxiliary power supply P	Output O
U1:0-5V	P1:DC24V	O1:4-20mA
U2:0-10V	P2:DC12V	O2:0~20mA
U3:0-75mV	P3: DC5V	O4:0~5V
U4:0-2.5V	P4:DC15V	O5:0~10V
U5:0-±5V	P8:User-defined	O6:1~5V
U6:0-±10V		O7:0~±5V
U7:0-±100V		O8:User-defined
U8:User-defined		O9:-20~+20mA
A1:0-1mA		O10:0~±10V
A2:0-10mA		
A3:0-20mA		
A4:4-20mA		
A5:0-±1mA		
A6:0-±10mA		
A7:0-±20mA		
A8: User-defined		

Examples:

- (1) Input:0-5VDC Output:0-5VDC Power:24VDC 6KV high isolation
 Model:ISOEMH-U1-P1-O4
- (2) Input:4-20mA Output:4-20mA Power:24VDC 6KV high isolation
 Model:ISOEMH-A4-P1-O1

Specification:

SUNYUAN ISOEMH series is a kind of electromagnetic isolation integrated IC, it is made of isolated DC/DC converters and electromagnetic isolation signal amplifier, it is ideally applied in the field with no special requirements on EMC(electromagnetism disturb). Compared to photoelectric isolation converter, it can not be used in strong magnetic field, so clients need to adopt shielding measures, it can reach 6000VDC insulated. Sunyuan ISO EM series it is very easy to use, no external components are required.

- ★ Products package: PCB Mounted type and DIN 35 1x2 or DIN35 2x2 Rail-Mounted
- ★ 0-5V/0-10V/0-75mV/0-2.5V/0-1mA/0-10mA/0-20mA/4-20mA isolated signal of international standard signal input and output
 Accuracy grade:0.1/0.2, Extremely high linearity in whole process(non-linearity<2%), need not “ZERO”and “G.adj” adjustment..

Max operation range:

Continue isolation voltage value	6000VDC
Power Vin range:	±25%Vin
Jointing temperature(10sec.)	+300℃
Vout signal load(MIN)	2KΩ

If over above range, maybe cause products damaged permanently.

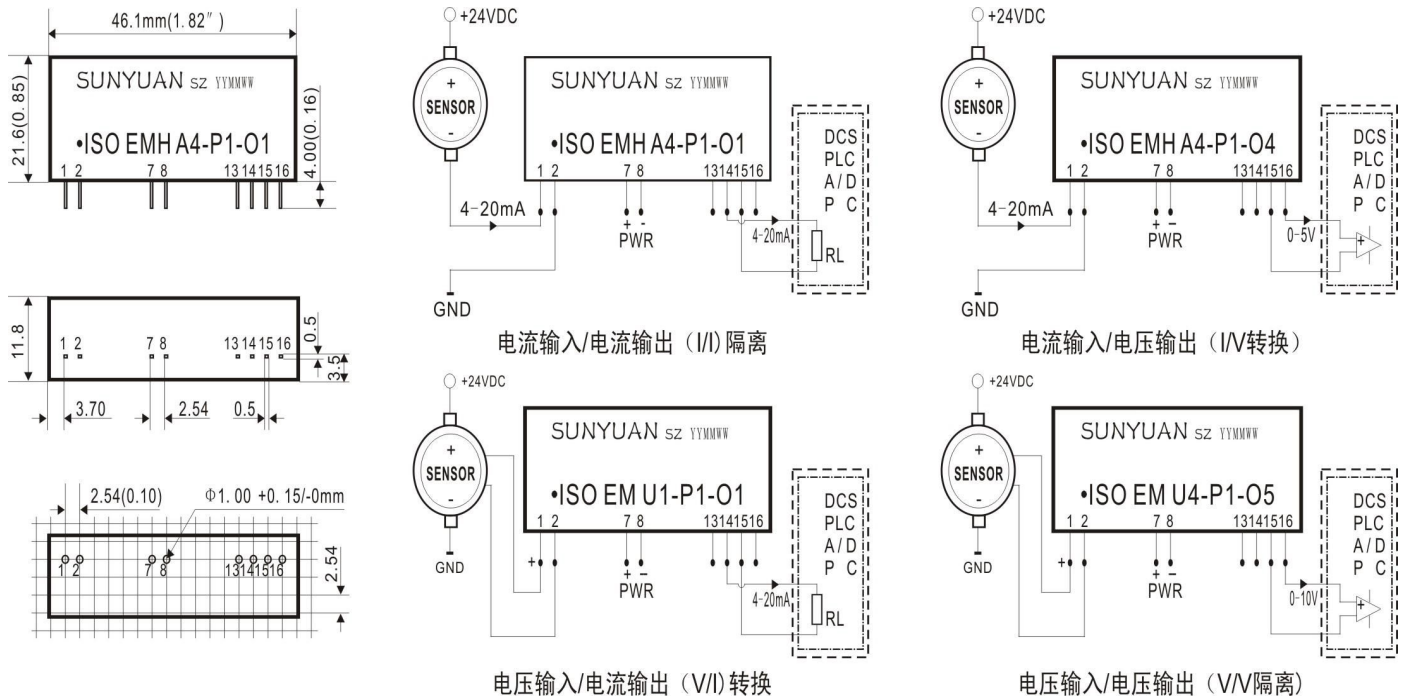
Technical parameters:

Parameter	Test Conditions	Mix	Type	Max	Unit
Isolated voltage	AC,50Hz,1min	3000			V(rms)
G.Adj			1		V/V
G.Adj temperature drift			25		ppm/℃
Non-linearity			0.1	0.2	%FSR
Input signal	Voltage	0		15	V
	Current	0		30	mA
Input maladjusted voltage			2	5	mV
Input impedance	Voltage		1		M
	Current		250	1000	Ω
Output signal	Voltage	-10		10	V
	Current	-20		20	mA
Load capability	Voltage	Vout=10V	2		kΩ
	Current		350	650	Ω
Frequency response	-3DB		0.5	10	KHz
Signal output ripple	No-filter		10	20	mVRMS
Signal voltage temperature drift				0.2	mV/℃
Assistant power	Voltage	User-defined	3.3	12	VDC
	Power loss		0.5	1	W
Operating temperature		-45		85	℃
Storage temperature		-55		105	℃

Note:If need special load capability of voltage/current signal, please explain.

Output	Output load capability	Response Time
4-20mA	≤350Ω (If need 650Ω,please explain)	≤1mS
0-20mA		
0-5V	> 2KΩ	
0-10V		
1-5V		

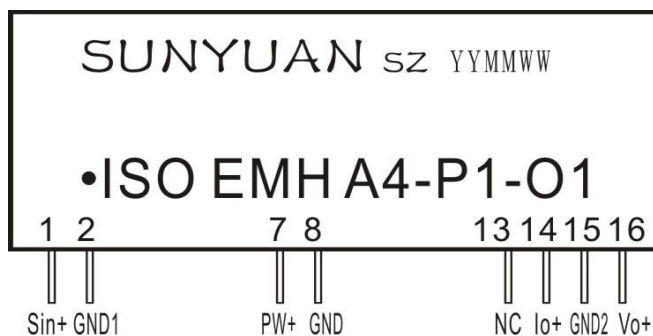
Physical Dimensions and Pin Description:



SIP 16 Pin Definition (“ZERO”and “G.Adj” adjustment are not required).

PIN	1	2	3-6	7	8	9-12	13	14	15	16
Descr iption	Signal input Sin+	Signal input GND1	omitted	power PW+	power PW-	omitted	omitted	Current Signal output Iout+	Isolated signal output GND2	Voltage signal output Vo+

Note: The isolation amplifier module can not be used in the field of strong electromagnetic interference.



*The specification is subject to change without notice.