



## ISO 4-20mA CURRENT LOOP ISOLATION INTERFACE IC

### CHARACTERISTICS :

- Low cost, small size, standard SIP12 package
- Signal input/Output, 3000VAC isolated voltage
- No external instrument needed for power supply
- 4-20mA high accuracy of current input/output (distortion<0.2%)
- Industrial temperature ( -45—+85 )
- ( 7.5—32V ) Wide range of input voltage
- High linearity ( Nonlinearity<0.2% )
- Frequency response ( Small signal bandwidth ) 2KHZ ( Io=20mA )
- Low resistance ( Up<2V )

### DESCRIPTION:

ISO 4-20mA Current Loop Isolation Interface IC provides signal receive and transmittal on a single chip. The ceramic hermetic hybrid package contains an electromagnetic coupled converter and current modulate. The very low input equivalent impedance allows the input voltage can be up to an ultra-wide range (7.5V~32V), so that it is able to meet the requirements for no distortion in long-distance signal transmission under the circumstance of no outside connecting power. The internal ceramic PCB, printed impedance and new isolation technologies allow the IC for the 3KVAC insulated voltage and meets the industrial level for the extremely poor temperature, humidity and shaking conditions.

### APPLICATION :

- Analog signal data acquisition and isolation
- Isolated 4-20mA signal transmission
- Industrial process signal isolation
- Ground-loop elimination
- No distortion in long distance signal transmission
- Instrument signal acquisition
- Electric supervision and medical application
- Isolated safe bar
- Biomedical measurements

These specifications make the ISO 4-20mA Current Loop Isolation Interface IC very easy to use, as well as providing compact for PCB board.

### ABSOLUTE MAXIMUM RATINGS

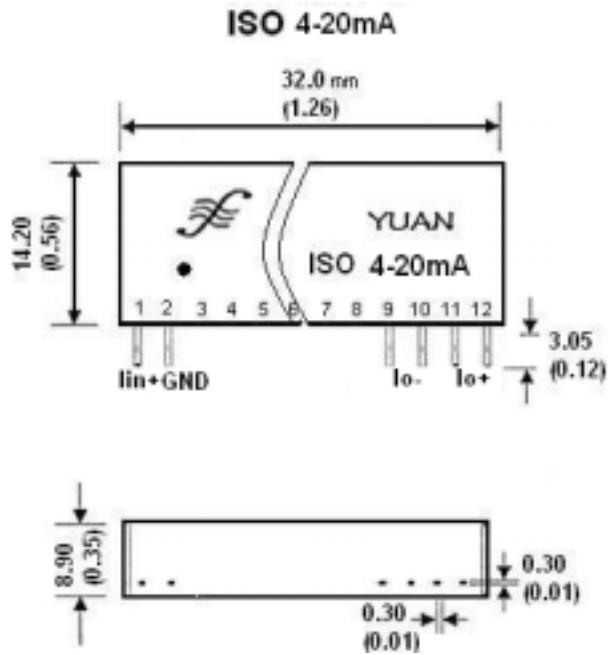
Continuous Isolation Voltage	3000Vrms
Vin	32V
Junction Temperature	+85
Storage Temperature	+150
Lead Temperature	+300
Output Short to Common	Continuous

### SPECIFICATIONS

Parameter	Condition	Min	Type	Max	Units
<b>ISOLATION</b>	10S	3000			
Rated continuous voltage			10 <sup>12</sup> 1		Vrms
AC , 60Hz			0.5		Ω Pf
Barrier impedance	240Vrms , 60Hz				uA
Leakage current					
Gain vs Temperature			±50	±100	PPm/
Nonlinearity			±0.1	±0.2	%FSK
Signal input voltage range		7.5		32	V
Output linearity range			4	20	mA
Io		0.1		40	mA
Voh	Io=20mA		2		V
Output signal ripple				5	mV
Frequency response (Small signal bandwidth)	Io=20mA		2		KHZ



## DIMENSIONS



## PIN DESCRIPTION

Pin	Function Description	
1	Iin+	Signal input
2	GND	Signal input
3~8		
9	Io-	Signal output
10	Io-	Signal output
11	Io+	Signal output
12	Io+	Signal output

\*Specifications can be changed without notification.