

## 4-20mA CURRENT Input Super-mini Signal Conditioners



### CHARACTERISTICS:

- Low cost,small size,standard SIP12 package
- Electromagnetic Isolation
- Signal input/output,3000VDC isolated voltage
- No external instrument needed for power supply
- 4-20mA high accuracy of current input/output (distortion<0.2%)
- Industrial temperature (-45~+85 °C)
- High linearity (Nonlinearity<0.2%)
- Small signal bandwidth:50HZ
- Weld to PCB directly
- SIP12 Package

### 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

### 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, 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 3KVDC insulated voltage and meets the industrial level for the extremely poor temperature, humidity and shaking conditions. These specifications make the ISO 4-20mA Current Loop Isolation Interface IC very easy to use, as well as providing compact for PCB board.

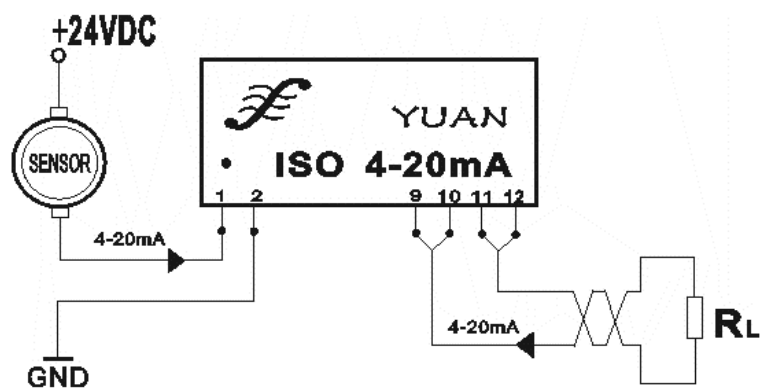
**ABSOLUTE MAXIMUM RATINGS:**

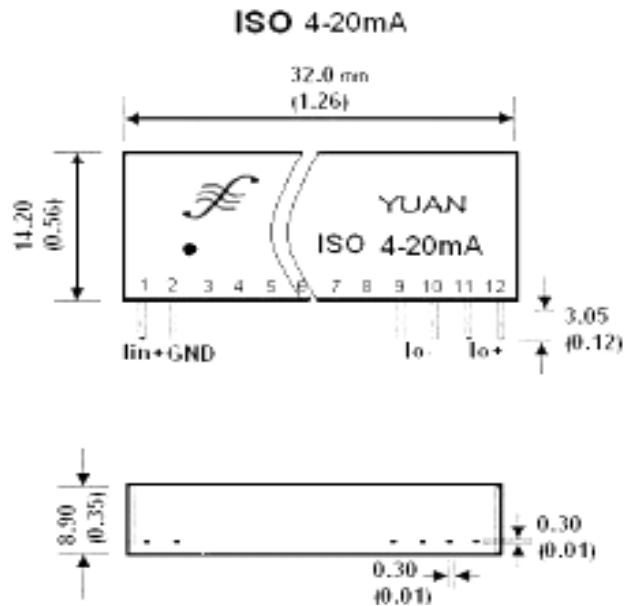
Continuous Isolation Voltage	3000Vrms
Vin	32V
Junction Temperature	+85°C
Storage Temperature	+150°C
Lead Temperature	+300°C
Output Short to Common	Continuous

**SPECIFICATIONS**

Parameter	Condition	Min	Type	Max	Units
Isolation	10S 240Vrms, 60Hz			3000	VDC
Rated continuous voltage					
AC, 60Hz			10 <sup>12</sup> _1		Vrms
Barrier impedance,			0.5		_Pf
Leakage current					uA
Gain vs Temperature		-100	±50	+100	PPm/
Nonlinearity		-0.2	±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
Small signal bandwidth	Io=20mA			50	Hz
Frequency Response				20	ms

**CONNECTION&DIMENSIONS:**





**PIN DESCRIPTION:**

Pin	Function	Description
1	lin+	Signal input
2	GND	Signal input
3-8		
9	lo-	Signal output
10	lo-	Signal output
11	lo+	Signal output
12	lo+	Signal output

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