ISO 4-20mA CURRENT LOOP ISOLATIOM 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）

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 impendence 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 impendence 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.

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

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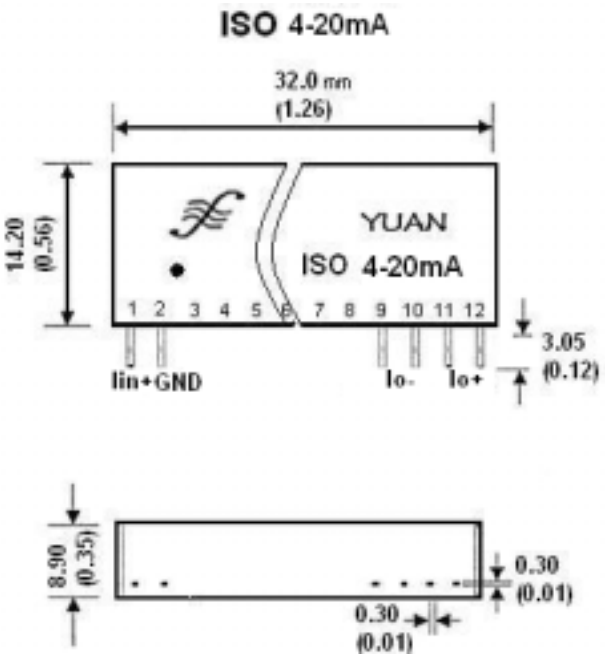
DIMENSIONS



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.

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