



ISO 1003 choose type:

ISO- 1003- Input□-Output□



Input rated voltage (or current)	Output
U1: 0-75mV	Two wires 4-20mA
U2: 0-100mV	
U3: 0-5V	
U4: 0-10V	
U5: 0-2.5V	
A1: 0-1mA	
A2: 0~10mA	

Feature:

- Low cost, small volume, standard DIP24 Pin package
- Signal input /output 3000VDC isolation
- Current supplied by 4-20mA current loop, voltage range: 12-32VDC
- Low impedance signal input
- 0-5V input, 100Ω or 250Ω or 500Ω resistance bypass series-wound circuits
- provide 5V/3.5mA isolated power supply for user and 2.5V norm power supply in input pot.
- High linearity(Nonlinearity <0.2%, Distortion<0.2%)
- Industrial level temperature(-45~+85°C)

Application:

- Analog signal data acquisition and isolation
- 4-20mA signal transmit
- Industrial process signal transform
- Ground interference control
- No distortion in long-distance signal transmission
- Electric supervision、 medical instrument isolated safe bar
- Instrument signal acquisition

Description:

ISO 1003 two wires voltage isolated transmitter is 4-20mA current loop isolated interface module, its internal contains current signal modems circuit, electromagnetism change circuit and demodulation circuit. The module 4-20mA supply 12~32VDC power supply. Input voltage signal is 0~75mVDC or higher.

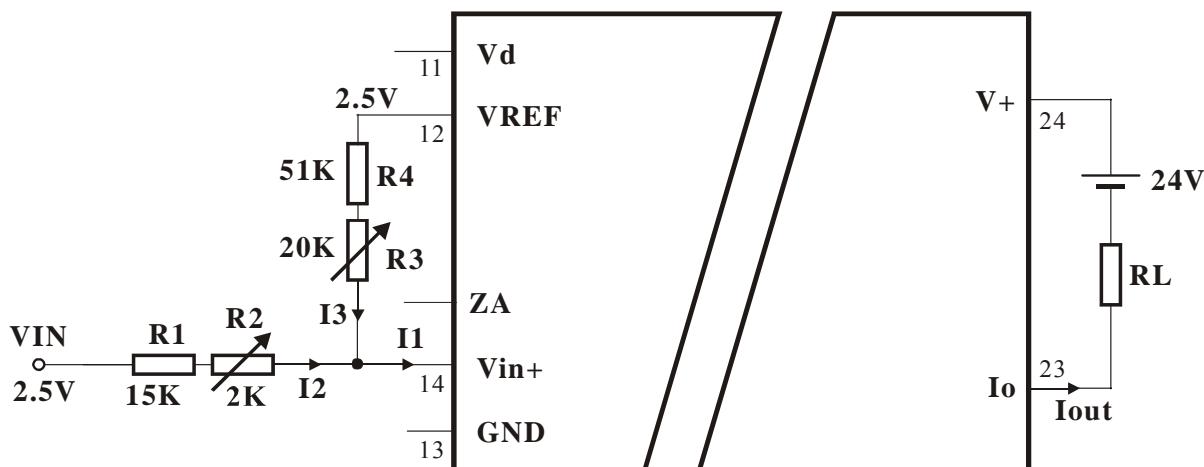
General parameter:

Parameter	Test Condition	MIN	TYP	MAX	Unit
Isolation Voltage	AC,50Hz,1min	1500	2500		V(rms)
Norm Voltage	24V power (Vref)	2.475	2.495	2.515	VDC
Norm Voltage Current	24V power (Iref)	100			μA
Precision	RL=250Ω		0.5	0.6	%FSR
Signal Output	RL=250Ω	4	4~20	20	mA
Vd Voltage Output	24V power (Vref)	4.8	5.0	5.2	VDC
Vd Load Capability	24V power (Iref)	2			mA
Power Range	V+	9 16.5	24 24	32 36	V
Operating Temperature		-40		85	°C
Storage Temperature		-55		125	°C

Application 1:

Input: 0~2.5V Output: 4~20mA(two wires current loop)

ISO 1003



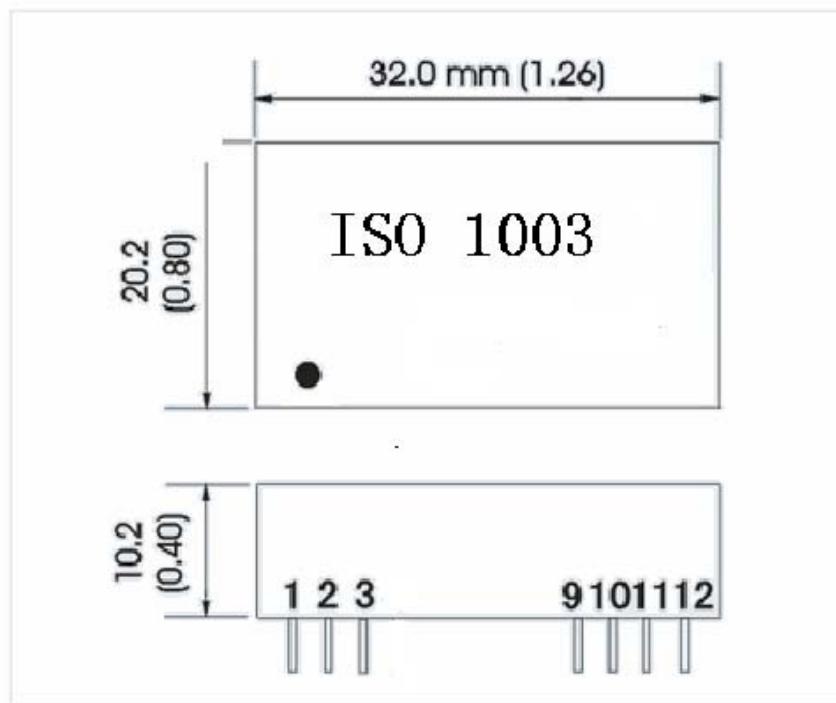
$$I_{out} = I_1 * 100 \quad I_3 = 40 \mu A \quad I_2 = VIN / (R_1 + R_2)$$

$$I_{out} = 4 \text{ mA} + 100 * VIN / (R_1 + R_2)$$

When input 0~100mV ,R1=500 ohm,R2=200 ohm.

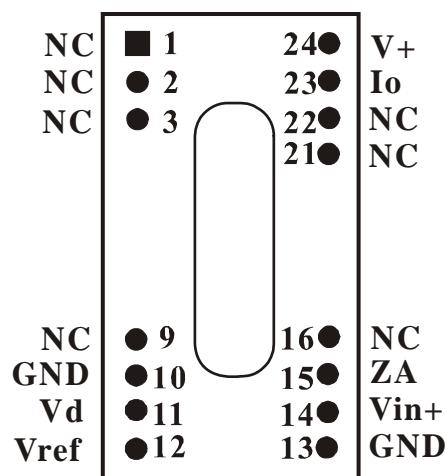
Figure1 ISO 1003 Application

Physical Dimensions and PCB Dimensions:



Pin Description:

<plan form>



PIN Description:

1-3	9	10	11	12	13	14	15	16	21	22	23	24
NC	NC	GND	VD	VREF	GND	VIN+	ZA	NC	NC	NC	IO	V+
NC	NC	Ground	Vin	Vin	Ground	Vin	"ZER O"	NC	NC	NC	Io	Vout 24V