



1-in-1-out unidirectional AC signal isolation transmitter

Features:

- ◆ Small size, low cost, Standards DIN35mm rail mounting
- ◆ Three-port isolation (input, output and power supply)
- ◆ High accuracy (0.5% F.S.)
- ◆ High linearity (0.2% F.S)
- ◆ High isolation voltage (2500VDC/60S)
- ◆ Low temperature drift (35PPM/°C)
- ◆ Wide Industrial class operation temperature (-45~+85°C)
- ◆ High reliability (MTBF>50 Wan hour)
- ◆ Power supply (5VDC/12VDC/15VDC/24VDC etc. single power supply)
- ◆ International standard signal input and output (0~5V/1~5V/0~10V/4~20mA/0~20mA etc.)

Application:

- ◆ AC/DC current/voltage signal isolation, conversion and amplification
- ◆ Industrial field signal isolation and conversion, and long-distance transmission without distortion
- ◆ Analog signal ground interference suppression
- ◆ Analog signal isolation conversion and amplification
- ◆ Instrumentation and sensor signal transceiver
- ◆ Power isolation monitoring industrial site
- ◆ Power monitoring, medical equipment isolation barrier
- ◆ Overcome the interference between equipment

General Description:

JieShengDa Technology **JSD TAE-1001** series 1-in-1-out AC signal isolation transmitter is a signal conditioner with electrical insulation between input and output. It can receive a variety of AC voltage/current signal from the field instrument, and transmit a standard output signal or user-specified special signal for a variety of instrumentation. The product is isolated between power supply, input and output, the isolated voltage between them is up to 2500VDC .It is widely used in the industrial measurement systems, medical electronic equipment, electrical equipment etc. This signal isolation transmitter adopt magnetic isolation technology to isolate/ inspect and monitor the AC voltage signal, this product is small size, low power consumption, high precision. There are single-phase, three-phase three-wire and three-phase four-wire etc.. All outputs of the multiplexer are isolated from each other and can be used flexibly. Magnetic isolation compared to optical isolation transmitter has characteristics of higher output accuracy and stability, low temperature characteristics and good linearity, its using international standard DIN35mm rail mounting for easy user installation.

Selections and Definitions:

Product Selection Parameter List:							
signal input code :				Power supply code:		output signal code:	
voltage input code		current input code		1:	24VDC	1:	4~20mA
1:	0~1VAC	A:	0~20mAAC	2:	15VDC	2:	0~20mA
2:	0~10VAC	B:	0~100mAAC	3:	12VDC	3:	0-10mA
3:	0~100VAC	C:	0~250mAAC	4:	5VDC	4:	0~5V
4:	0~120VAC	D:	0~500mAAC	5:	220VAC	5:	0~10V
5:	0~220VAC	E:	0~1000mAAC			6:	1~5V
6:	0~380VAC	F:	0~2000mAAC				
		G:	0~5000mAAC				
U:	User-defined	U:	User-defined	U:	User-defined	U:	User-defined



JSD TAE-1001 Series Analog Signal Isolation Transmitter

Electrical Characteristics:

Signs	Item	Test Condition	Min	Type	Max	Units	
Isolation characteristics	Isolation voltage	AC,50Hz,(Tested for 1 minute humidity<70%, leakage current < 1mA)		2500		V(rms)	
Transmission Characteristics	Gain			1		V/V	
	Gain drift		<100			ppm/	
	Non-linearity			0.1	0.2	%FSR	
Input Characteristics	Signal input	voltage	0	220	400	VAC	
		current	0		5	AAC	
	Input offset voltage			2	5	mV	
Output Characteristics	Signal output	voltage	0		10	V	
		current	0		24	mA	
	Load capacity	Voltage	Vout=10V		2		kΩ
		current		0	300		Ω
	Signal output ripple	Unfiltered			10	20	mVRMS
	Response time			<300			mS
Power Supply Characteristics	Power supply	Voltage	3.3	12	24	VDC	
		Power loss			2		W
		Rage	-10		+10		%
Others Characteristics	Operating temperature		-45		85	°C	
	Storage temperature		-55		105	°C	
	Weight				60		g
Note:	Normal load ≤ 350Ω, if required load 500Ω, please note when ordering						

Pins function description:

Inputting wring type:					
Output type	Pin	Function	Pin	Function	Storage
Voltage/current output type	1	Signal In +	7	No pin (NC)	International Standard DIN35 Rail mounting
	2	Signal In -	8	No pin (NC)	
	3	No pin (NC)	9	Current Signal output +	
	4	No pin (NC)	10	Current Signal output -	
	5	Power supply+	11	Voltage Signal output +	
	6	Power supply-	12	Voltage Signal output -	
Inputting perforation type:					
Output type	Pin	Function	Pin	Function	Storage
Voltage/current output type	1	No pin (NC)	7	No pin (NC)	International Standard DIN35 Rail mounting
	2	No pin (NC)	8	No pin (NC)	
	3	No pin (NC)	9	Current Signal output +	
	4	No pin (NC)	10	Current Signal output -	
	5	Power supply +	11	Voltage Signal output +	
	6	Power supply -	12	Voltage Signal output -	



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Selection Example :

Example 1: signal input: 0-10VAC; signal output: 0-10V; power supply: 24VDC; model: JSD TAE-1001-215

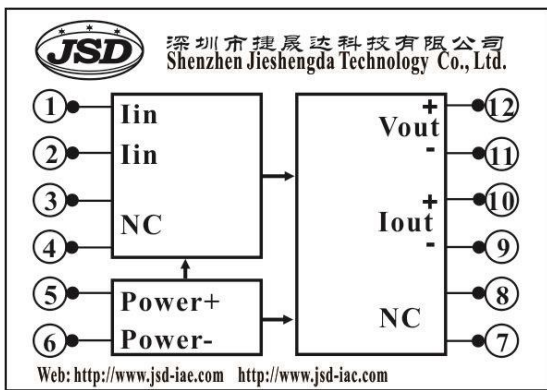
Example 2: signal input: 0-250mA; signal output: 4-20mA; power supply: 15VDC; model: JSD TAE-1001-C21

Example 3: signal input: 0-5000mA; signal output: 4-20mA; power supply: 24VDC; model: JSD TAE-1001-G11

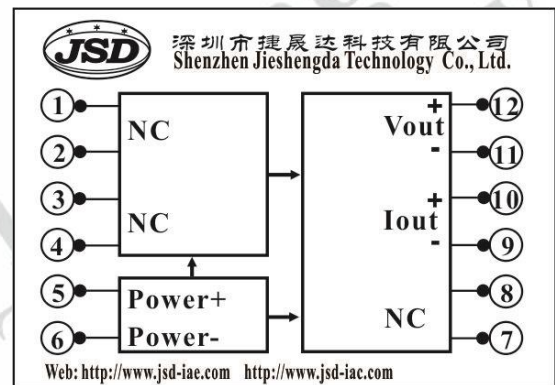
Example 4: signal input: 0-250VAC; signal output: 0-5V; power supply: 15VDC; model: JSD TAE-1001-U24

Example 5: signal input: 0-220VAC; signal output: 1-5V; power supply: 24VDC; model: JSD TAE-1001-516

Application Wiring Diagram:

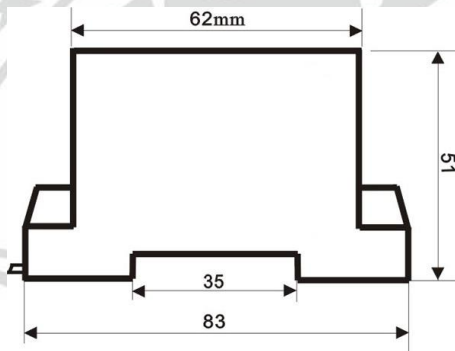


(Inputting wiring type)



(Inputting perforation type)

Product Dimensions:



Notes:

- 1、NC" pin must not be connected to any external circuit, otherwise it will damage the product itself;
- 2、Please read the user manual carefully before using. If any question please contact our technical support department.
- 3、Please do not use this product in hazardous area. The power supply of this product should be 24VDC power source. It is forbidden to use 220VAC power supply.
- 4、Calculating from the date of delivery, during normal use of the product, any quality problems are free repair or replacement by Company during 3 years warranty,
- 5、the product is strictly forbidden demolish without permission for not damage
- 6、All specifications measured at Ta=25 °C, humidity<75%, nominal input voltage and rated output load unless otherwise specified.
- 7、In this datasheet, all the test methods of indications are based on corporate standards.