



1-in-1-out high AC-DC(voltage/Current) signal isolation transmitter

Features:

- ◆ Small size, low cost, PA66 Retardant housing international standards DIN35mm rail mounting
- ◆ Three-port isolation (input, output and power supply)
- ◆ High accuracy (0.1% F.S, 0.2% F.S, 0.5% F.S)
- ◆ Full-scale range (<0.1% F.S)
- ◆ High isolation voltage (3000VDC/60S)
- ◆ Low temperature drift (50PPM/°C)
- ◆ Wide operation temperature (-45~+85°C)
- ◆ High reliability (MTBF>50 Wan hour)
- ◆ Power supply (5VDC/12VDC/15VDC/24VDC/9-30VDC/220VAC,etc.)
- ◆ AC Signal input (0-1000V/0-500V/0-220V/0-110V/0-20A/0-10A/0-5A,etc.)
- ◆ International standard signal output (0-3.3V/0-5V/0-10V/1-5V/4-20mA/0-20mA,etc.)

Applications:

- ◆ AC signal acquisition and conversion
- ◆ AC small signal amplification and conversion
- ◆ High-precision measurement and monitoring of power distribution
- ◆ Power isolation monitoring industrial site
- ◆ Power monitoring, medical equipment isolation barrier
- ◆ Industrial field signal isolation and distance transmission without distortion
- ◆ External form a single-phase or poly phase transformer isolation transmitter

General Description:

JieShengda Technology **JSD TAE-1001D** series 1-in-1-out AC-DC signal isolation transmitter, is an AC signal is collected and converted into a corresponding analog linear DC signal mixing circuit. The isolation transmitter a set of multi-channel micro-power, high isolation DC-DC power supply and a set of high-precision AC-DC signal conversion circuit. The group of high-precision AC-DC circuit can be sensor to the 0-20AAC or 0-1000VAC(50~60Hz) AC signal is converted into a proportional analog voltage to international standards and current signals, (eg :4-20mA/0-10mA/0-20mA /0-5V/0-2.5V/1-5V/0-10V) isolation transmitter SMD technology and new quarantine measures to isolate the power supply and the transmitter IC's work input signal/output isolation voltage up to 3000VDC external transformer can be formed after the single-phase or multi-phase transmitter isolation between input and output signals to achieve isolation. Products in power remote monitoring, instrumentation, medical equipment, industrial automation control and other fields widely used.

Sections and Definitions:

Selections list:							
signal input code:			Power supply code:		output signal code:		
Voltage(AC)		Current(AC)		W:			
1:	0-1V	A:	0-20mA	1:	24VDC	2:	0-20mA
2:	0-5V	B:	0-100mA	2:	15VDC	3:	0-10mA
3:	0-10V	C:	0-500mA	3:	12VDC	4:	0-5V
4:	0-110V	D:	0-1000mA	4:	5VDC	5:	0-10V
5:	0-220V	E:	0-1500mA	5:	220VAC	6:	1-5V
6:	0-380V	F:	0-2000mA			7:	0-3.3V
7:	0-500V	G:	0-5000mA				
8:	0-1000V	H:	0-10000mA				
U:	User-defined			U:	User-defined		
Note:	When ordering, please determine input、 output and power , special can customize						



Selection Example:

Example 1: input:0-500VAC; output:4-20mA; power supply:24VDC; Model: JSD TAE-1001D-711

Example 2: input:0-200VAC; output:0-10V; power supply:15VDC; Model: JSD TAE-1001D-U25

Example 3: input:0-10AAC; output:4-20mA; power supply:220VAC; Model: JSD TAE-1001D-H51

Example 4: input:0-5AAC; output:0-3.3V; power supply:30VDC; Model: JSD TAE-1001D-GW7

Example 5: input:0-1AAC; output:4-20mA; power supply:18VDC; Model: JSD TAE-1001D-DW1

Example 6: input:0-100VAC; output:0-20mA; power supply:5VDC; Model: JSD TAE-1001D-U42

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,)		3000		V(rms)	
	Transmission characteristics	Gain			1	50/10	100/2	V(A)/V
Gain drift					±50		ppm/°C	
Non-linearity				±0.1	±0.2		%FSR	
Accuracy Class				±0.1	±0.2	±0.5	%	
Input characteristics	Signal input	voltage		1	500	1000	VAC	
		current		0.1	10	20	AAC	
	Input	Input		2	5	7	mV	
Output characteristics	Signal output	voltage		0	10		V	
		current		0	20		mA	
	Load capacity	voltage	Vout=10V			2		kΩ
		current		0	350	500		Ω
	Signal output ripple		Unfiltered		10	20		mVRMS
	Response time				<300			mS
Power Supply input characteristics	DC Power supply	Voltage		3.3	12	30	VDC	
		Power		1	1.2		W	
		Range		-10		+10	%	
	AC Power supply	Voltage		90	220	260	VAC	
		Power		0.8	1		W	
		Range		-	-	-	%	
Other characteristic	operating temperature			-45		85	°C	
	storage temperature			-55		105	°C	
	weight			75		85	g	
Note:	normal load≤350Ω,if requiring load is 500Ω, Please note when ordering							

Pins function description:

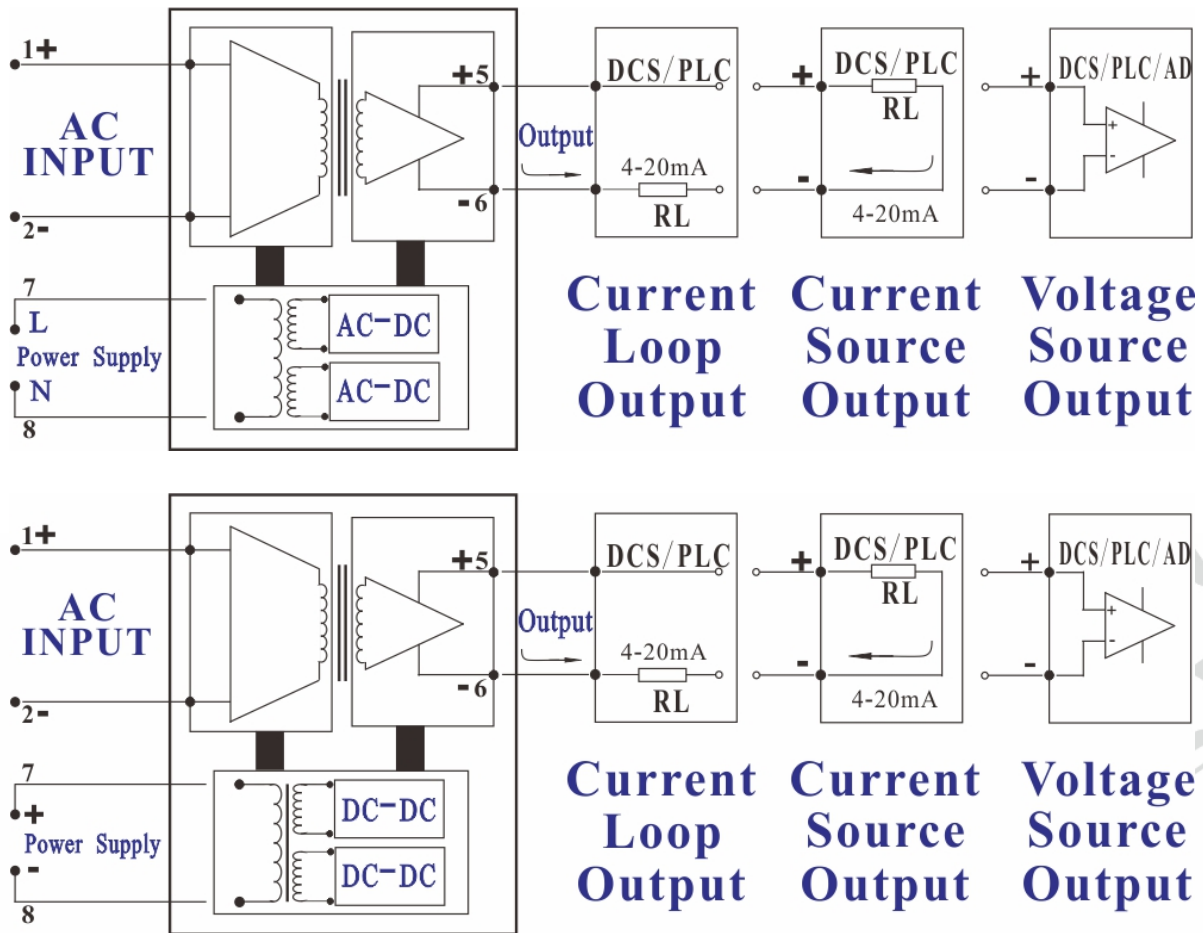
Pin	Function Description	Pin	Function Description	Package
1	Signal In+	5	Signal Out+	International Standard DIN35 Rail Mounting
2	Signal In-	6	Signal Out-	
3	No pin (NC)	7	Power In + / AC L	
4	No pin (NC)	8	Power In - / AC N	

Application Wiring Diagram:



Risk of electrical shock

Please pay attention to safety when wiring input terminal



Notes:

- 1、 Please read the user manual carefully before using. If any question please contact our technical support department.
- 2、 Please do not use this product in hazardous area.
- 3、 NC" pin must not be connected to any external circuit, otherwise it will damage the product itself;
- 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.