



## 1-input- 2-output active high accuracy isolation transmitter

### Features:

- ◆ Small size, low cost, international standards DIN35mm rail mounting
- ◆ Five port isolation (input, output, power supply and channels)
- ◆ High accuracy (0.1% F.S, 0.2% F.S)
- ◆ High linearity (0.1% F.S)
- ◆ High isolation voltage (3000VDC/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 single power supply options)
- ◆ International standard signal input and output (0-5V/0-±10V/4-20mA/0-±20mA/0-10mA etc. optional)
- ◆ Passed CE Certificate

### Application:

- ◆ DC current/voltage signal isolation, conversion and amplification
- ◆ Analog signal ground interference suppression and analog isolation, acquisition
- ◆ 0-5V/0-±10V/0-±20mA sensor signal isolation, transformation and signal distribution, conversion
- ◆ Instrumentation and sensor signal transceiver
- ◆ Power isolation monitoring industrial site
- ◆ Analog signal data isolation, acquisition, conversion, and long-distance transmission
- ◆ Industrial field signal isolation and conversion, and long-distance transmission without distortion
- ◆ Power monitoring, medical equipment isolation barrier
- ◆ Overcome inverter, large motors, power equipment, DCS and PLC Field interference

### General Description:

Jieshengda Technology **JSD TAM-1002 series** isolation transmitter is a Signal Conditioner with electrical insulation between input and output. It can receive a variety of analog signal from the field instrument, and transmit a standard output signal or user-specified special signal to the control room、PLC、PC or DCS. The product is isolated between channels, power supply, input and output, the isolated voltage between them is up to 3000VDC .It is widely used in the industrial measurement systems, medical electronic equipment, electrical equipment etc. Adopting high efficiency electromagnetism isolation technology to achieve signal isolation, it is available to keep high output accuracy, good linearity and low temperature drift. Suitable for using in vibration, damp industrial field, the standard DIN35mm rail mounting for easy user installation. For 1-in-3-out (1-in-4-out/2-in-2-out/3-in-3-out ) isolation transmitter please purchase JSD TAM-1003 series; JSD TAM-1004 series; JSD TAM-2002 series and JSD TAM-3003 series.

### Selections and Definitions:

signal input code:		Power supply code:	output signal code:	
Voltage(VDC)	Current(mA)	Power(VDC)	Current (mA)	Voltage(VDC)
1: 0-5V	A: 0-1mA	1: 24VDC	1: 4-20mA	4: 0-5V
2: 0-10V	B: 0-10mA	2: 15VDC	2: 0-20mA	5: 0-10V
3: 0-75mV	C: 0-20mA	3: 12VDC	3: -20+20mA	6: 1-5V
4: 0-2.5V	D: 4-20mA	4: 5VDC		7: 0-±5V
5: 0-±5V	E: 0-±1mA			8: 0-±10V
6: 0-±10V	F: 0-±10mA			
7: 0-±100mV	G: 0-±20mA			
U: User-defined		U: User-defined	U: User-defined	

**Note1: When ordering ,please determine input、 output and power , special can customize**



# JSD TAM-1002 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)		3000		V(rms)
Transmission characteristics	Gain error			1		V/V
	Gain drift Non-linearity			35		ppm/°C
	Non-linearity			0.1	0.2	%FSR
Input characteristics	Signal voltage		0		15	V
	input current		0		30	mA
	Input offset voltage			2	5	mV
	Input impedan voltage			1		M
Output characteristics	impedan current				50	Ω
	Signal output voltage		-10		10	V
	output current		-20		20	mA
	Load voltage	Vout=10V		2		kΩ
	capacity current		0	350	500	Ω
	Signal output ripple	Unfiltered		10	20	mVRMS
Power input characteristics	Power supply Voltage		3.3	12	24	VDC
	Power loss				2	W
	Rage		-10		+10	%
Other characteristics	operating temperature		-45		85	°C
	storage temperature		-55		105	°C
	Weight			128		g
<b>Note:</b>	<b>Normal load ≤ 350Ω, if required load 500Ω, please note when ordering .</b>					

### Selection Example:

Example 1: Signal Input : 4-20mA; Signal Output 1: 4-20mA; Signal Output 2: 4-20mA;  
Power Supply: 24VDC; Model: JSD TAM-1002-D11

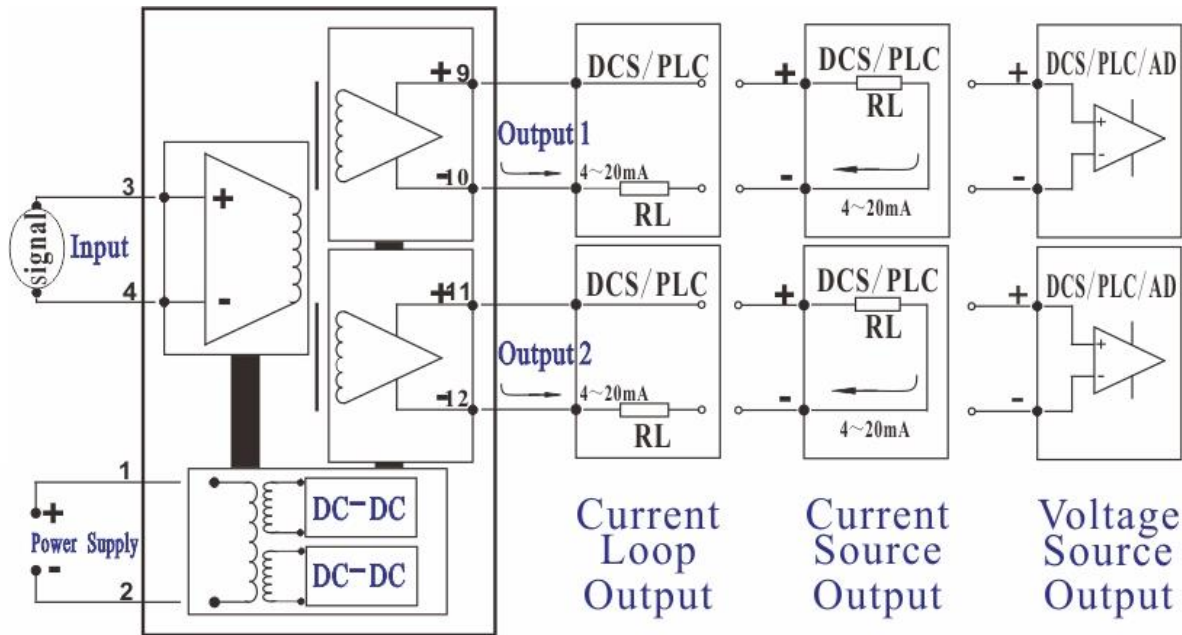
Example 2: Signal Input : 0-10VDC; Signal Output 1: 0-5VDC; Signal Output 2: 0-5VDC;  
Power Supply: 15VDC; Model: JSD TAM-1002-224

Example 3: Signal Input : 0-10VDC; Signal Output 1: 0-5VDC; Signal Output 2: 0-10VDC;  
Power Supply: 24VDC; Model: JSD TAM-1002-214-215

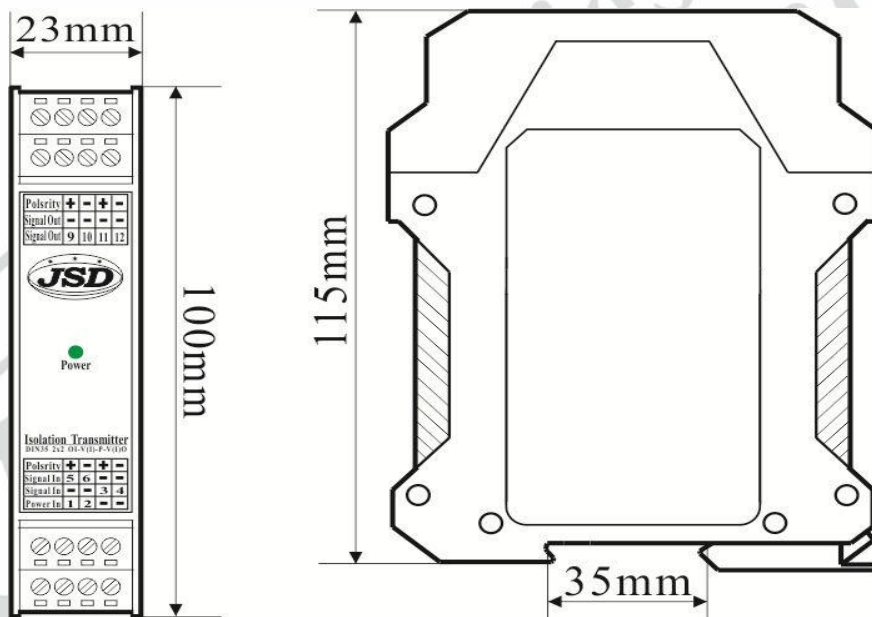
### Pin Function Description:

Signal Type	Pin	Function Description	Pin	Function Description	Package
Voltage/ Current Input	1	Power supply Input +	9	Signal Output + 1	International Standard DIN35 Rail Mounting
	2	Power supply Input -	10	Signal Output - 1	
	3	Signal Input +	11	Signal Output + 2	
	4	Signal Input -	12	Signal Output - 2	
	5	(NC)	13	(NC)	
	6	(NC)	14	(NC)	
	7	(NC)	15	(NC)	
	8	(NC)	16	(NC)	

## Application Wiring Diagram:



## Product Dimensions:



## 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. The power supply of this product should be 24VDC power source. It is forbidden to use 220VAC power supply.
- 3、 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,
- 4、 To avoid invalid, or any failure, users disassemble this product is forbidden
- 5、 the product is strictly forbidden demolish without permission for not damage
- 6、 All specifications measured at  $T_a=25\text{ }^\circ\text{C}$ , 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.