



### 1-in-2-out two-wire input analog signal isolation transmitter

**Features:**

- ◆ Small size, low cost, international standards DIN35mm rail mounting
- ◆ Three-port isolation (between input, output and power supply)
- ◆ High accuracy (0.1% F.S, 0.2% F.S)
- ◆ High linearity (0.1% F.S)
- ◆ Full-scale range (<0.2% F.S)
- ◆ High isolation voltage (3000VDC/60S)
- ◆ Low temperature drift (100PPM/°C)
- ◆ Wide operation temperature (-45~+85°C)
- ◆ High reliability (MTBF>50 Wan hour)
- ◆ Power supply (5VDC/12VDC/15VDC/24VDC multiple choice)
- ◆ For 220VAC power supply please choose JSD TA-1522 series
- ◆ International standard signal input and output (0~5V/0~10V/1~5V/4 ~ 20mA/0~20mA, etc.)

**Application:**

- ◆ DC current/voltage signal isolation, conversion and amplification
- ◆ industrial field signal isolation and long distance transmission without distortion
- ◆ analog signal ground interference suppression and analog isolation, acquisition, conversion, and long-distance transmission
- ◆ 4~20mA/0~20mA/0~5V/0~10V sensor signal isolation, transformation and long-distance transmission
- ◆ instrumentation and sensor signal transceiver
- ◆ power isolation monitoring industrial field
- ◆ power monitoring, medical equipment isolation barrier
- ◆ supply power to two-wire instruments, meters, sensors, transmitters
- ◆ overcome interference between instrumentation equipment

**General Description:**

Jie Shengda Technology **JSD TA-1022** 1-in-2-out two-wire analog signal isolation transmitter is a signal conditioner with electrical insulation between input and output, it can receive a variety of analog signal from meter and at the same time supply 24VDC power to two-wire instruments/meters/sensors/transmitters, and transmit a standard output signal or user-specified special signal to the control room、PLC、PC or DCS. 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 power isolation, monitoring and control of industrial site, analog signal isolation and acquisition etc. Adopting optocoupler isolation technology, compared with the electromagnetism isolation transmitter has a stronger anti-EMC electromagnetic interference ,it is available to keep high accuracy ,low temperature drift and good linearity, this isolation transmitter adopt international standard DIN35mm rail mounting, user-friendly installation, for conventional products please purchase JSD TA-1002 series, 220VAC power supply please purchase JSD TA-1522.

**Selections and Definitions:**

Product Selection Parameter List:							
Signal input code				Power supply code		Signal output code	
Voltage input code		Current input code		1:	24VDC	1:	4-20mA
1:	0-5V	A:	0-1mA	2:	15VDC	2:	0-20mA
2:	0-10V	B:	0-10mA	3:	12VDC	3:	0-10mA



## JSD TA-1022 Series Two-wire Analog Signal Isolation Transmitter

3:	0-75mV	C:	0-20mA	4:	5VDC	4:	0-5V
4:	0-2.5V	D:	4-20mA			5:	0-10V
U:	User-defined	U:	User-defined	U:	User-defined	U:	User-defined
<b>Note:</b>	<b>When ordering ,please determine input、 output and power , special can customize</b>						

### Selection Example:

Example 1: input 1: 0-5VDC; output 1: 0-10VDC; output 2: 0-10VDC; power supply:12VDC;  
Mode: JSD TA-1021-135

Example 2: input 1: 4-20mA; output 1: 4-20mA; output 2: 4-20mA; power supply:24VDC;  
Model: JSD TA-1021-D11

### Electrical Characteristics:

Signs	Item	Test Condition	Min	Type	Max	Units	
<b>Isolation characteristics</b>	Isolation voltage	AC,50Hz,(Tested for 1 minute humidity<70%, leakage current < 1mA)		3000		V(rms)	
	<b>Transmission characteristics</b>	Gain		1		V/V	
	Gain drift			100		ppm/°C	
	Gain adj potentiometer			50		kΩ	
	Zero adj potentiometer			2		kΩ	
	Non-linearity			0.1	0.2	%FSR	
<b>Input characteristics</b>	Signal input	voltage	0		200	V	
		current	0		30	mA	
	Input offset voltage			2	5	mV	
	Input impedan	voltage		0.3	1		M
		current			250	1000	Ω
<b>Output characteristics</b>	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
<b>Power input characteristics</b>	Power supply	Voltage	3.3	12	24	VDC	
		Power loss		0.5	1	W	
		Range		-10		+10	%
<b>Other characteristics</b>	operating temperature			-45		85	°C
	storage temperature			-55		105	°C
	Weight				121		g
<b>Note:</b>	<b>Normal load ≤ 350Ω, if required load 500Ω, please note when ordering .</b>						

### Pins function description:

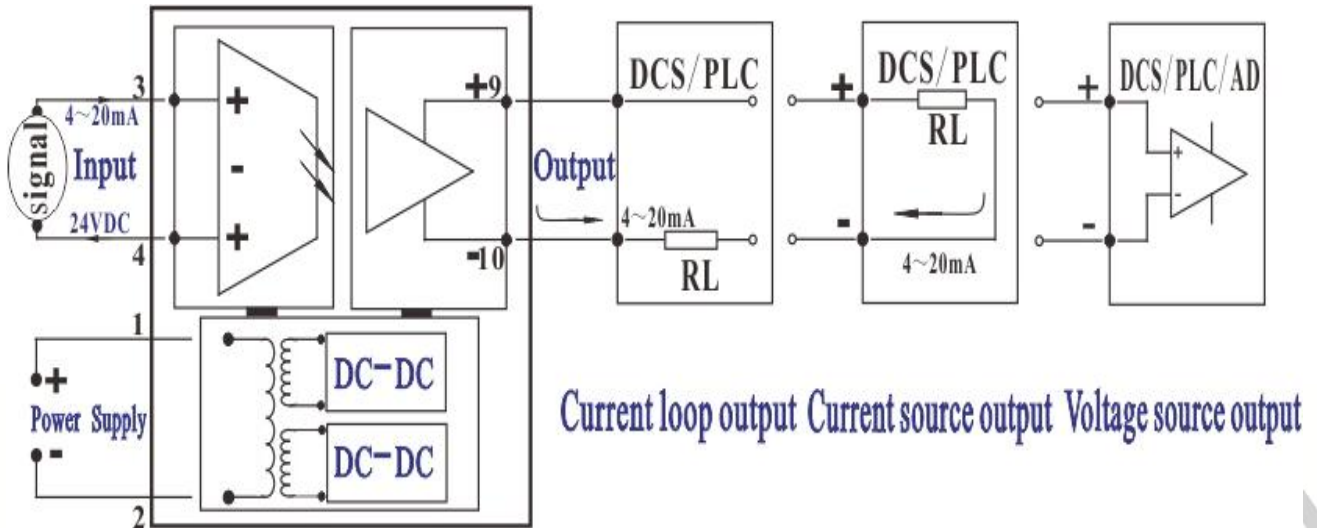
Pin	Function	Pin	Function	storage
1	Power In +	9	Signal Out1+	International standard DIN35 rail mounting
2	Power In -	10	Signal Out1-	
3	Signal In+	11	Signal Out2+	
4	Power Out+	12	Signal Out2-	



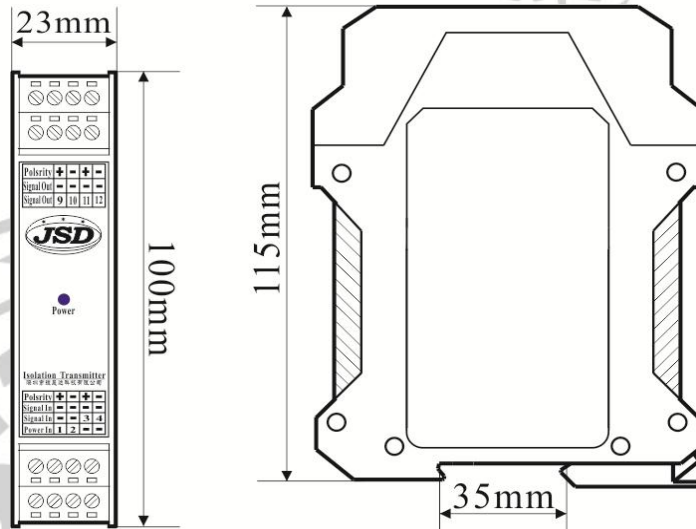
# JSD TA-1022 Series Two-wire Analog Signal Isolation Transmitter

5	No pin (NC)	13	No pin (NC)
6	No pin (NC)	14	No pin (NC)
7	No pin (NC)	15	No pin (NC)
8	No pin (NC)	16	No pin (NC)

## Application Wiring Diagram:



## 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.