



# JSD TAR-2002 Series Resistance Signal Isolation Transmitter

2-in-2-out Resistance(electronic scale Displacement)signal Isolation transmitter

## Features:

- ◆ Small size, low cost, international standards DIN35mm rail mounting
- ◆ Six-port isolation (input, output ,power supply and between 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 (100 PPM/°C)
- ◆ Wide Industrial class operation temperature (-45--+85°C)
- ◆ High reliability (MTBF> 50 Wan hour)
- ◆ Power supply (5V/12V/15V/24V/9-36VDC multiple choice)
- ◆ Resistor or potentiometer signal input (0-100Ω/0-200Ω/0-500Ω/0-1KΩ/0-2KΩ/0-5KΩ/0-10KΩ, etc.)
- ◆ International standard signal output (0-5V/0-10V/1-5V/0-10mA/0-20mA /4-20mA/2-10V/0-3.3V ,etc.)

## Application:

- ◆ 2-ch Resistance (electronic scale/Displacement)signal isolation and conversion into 2-ch standards analog signal
- ◆ Electronic scale/Resistance signal(Displacement signal)acquisition isolation and conversion into standards analog signal and long distance transmission without distortion
- ◆ Industrial field signal isolation and long distance transmission without distortion
- ◆ Analog signal ground interference suppression and analog isolation, acquisition, transformation and remote transmission
- ◆ FA, OA field instrumentation and sensor signal transceiver
- ◆ To overcome the mutual interference between the equipment and the displacement
- ◆ Industrial field measurement process monitoring and control

## General Description:

Jieshengda Technology **JSD TAR-2002** series 2-in-2-out Resistance(Displacement/electronic scale)signal Isolation transmitter is an analog signal isolation transmitter, which is used to collect, isolate, amplify and convert the analog signal from resistance, linear electronic scale, angular displacement sensor input, 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 is up to 3000VDC, The isolation transmitter input voltage constant drive for three-wire sensor devices and instrumentation, it is widely used in potentiometer signal isolation, acquisition and transformation; industrial field precision displacement, angle measurement; electronic signals into standard analog signal; It is widely used in the displacement, angle measurement and alarm; industrial field signal isolation and remote transmission, analog signal ground interference suppression, industrial measurement systems, medical electronic equipment, electrical equipment etc. Adopting high efficiency optical isolation technology to achieve signal isolation, it is available to keep high output accuracy, good linearity and low temperature drift.

## Selection Example:

Product Selection Parameter List:					
Signal input code		Power supply code		output signal code	
1:	0-50Ω	W:	9-36VDC	1:	4-20mA
2:	0-100Ω	1:	24VDC	2:	0-20mA
3:	0-200Ω	2:	15VDC	3:	0-10mA
4:	0-500Ω	3:	12VDC	4:	0-5V
5:	0-1KΩ	4:	5VDC	5:	0-10V
6:	0-2KΩ			6:	1-5V
7:	0-5KΩ			7:	0-3.3V
8:	0-10KΩ				
U:	user-define	U:	user-define	U:	user-define
<b>Note:</b>		<b>When ordering ,please determine input、 output and power , special can customize</b>			



# JSD TAR-2002 Series Resistance Signal Isolation Transmitter

## Electrical Characteristics:

Signs	Item	Test condition	Min	Typ.	Max	Units	
Isolation characteristics	Isolation voltage	AC,50Hz,tested for 1 minute, humidity<70% leakage current < 1mA		3000		V(rms)	
Output characteristics	Gain drift				100	ppm/°C	
	Non-linearity			0.1	0.2	%FSR	
	Signal output	voltage		-10		10	V
		current		0		20	mA
	Load capacity	voltage	Vout=10V		2		kΩ
current			350			Ω	
	Signal output ripple	Unfiltered		10	20	mVRMS	
Power Input Characteristics	Power supply	Voltage	5	24	36	VDC	
		Power loss			2	W	
		Range	-10		+10	%	
Other characteristics	Operating temperature		-45		85	°C	
	storage temperature		-55		105	°C	
	weight		120			g	
	Size			115x100x17.5		mm	
<b>Note :</b>	<b>normal load≤350Ω,if requiring load is 500Ω,Please note when ordering</b>						

### Selection Example:

Example 1: Signal input 1: 0-200Ω; Signal input 2: 0-200Ω; signal output 1: 0-3.3V; Power supply:24VDC ; model: JSD TAR-2002-317

Example 2: Signal input 1:0-4.7KΩ; Signal input 2:0-4.7KΩ; signal output 1:0-5VDC; signal output 2: 0-5VDC; Power supply:9VDC; model: JSD TAR-2002-UW4

Example 3: Signal input 1:0-10KΩ; Signal input 2:0-10KΩ; signal output 1:0-10mA; Power supply:15VDC; model: JSD TAR-2002-823

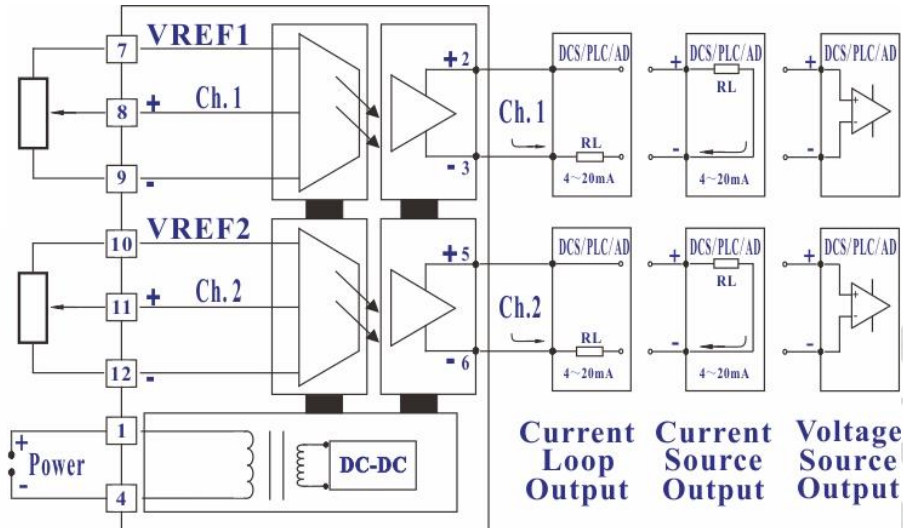
Example 4: Signal input 1:0-1KΩ; Signal input 2:0-1KΩ; signal output 1:4-20mA; signal output 2:4-20mA; Power supply:32VDC; model: JSD TAR-2002-5W1

Example 5: Signal input 1:0-47Ω; Signal input 1:0-47Ω; signal output 1: 0-20mA; signal output 2: 0-20mA; Power supply:12VDC; model: JSD TAR-2002-U32

### Pins function description:

Output types	Pin	Function	Pin	Function	storage
Voltage/ Current output	1	Power +	7	VREF 1	Standard DIN35 Rail mounting
	2	Signal Out 1+	8	IN 1+	
	3	Signal Out 1-	9	IN 1-	
	4	Power -	10	VREF 2	
	5	Signal Out 2+	11	IN 2+	
	6	Signal Out 2-	12	IN 2-	

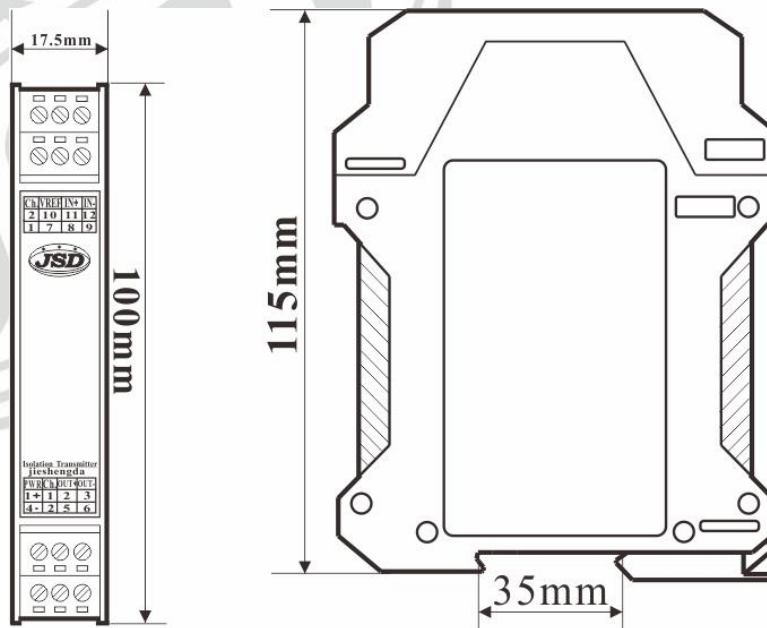
## Application Wiring Diagram:



### Note:

If the output signal is opposite displacement or angle, channels 1 the 7 feet and 9 feet of the connection line exchange; channels 2 the 10 feet and 12 feet of the connection line exchange; If it is a two-wire sensor device, you need to customize the constant current drive, wiring directly connected to 8 feet and 9 feet.

### 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 DC 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.