



1-in-1-out two-wire passive 4-20mA isolation conditioning transmitter

Features:

- ◆Low cost, small size, meet UL94-V0 flame retardant standard
- ◆International standard DIN35 rail mounting
- ◆Isolation voltage can be up to 3000VDC/60s between input and output
- ◆4-20mA current input and output, high accuracy(distortion <0.2%);
- ◆Industrial class temperature range: -45~+85 °C
- ◆High accuracy (0.1% F.S,0.2% F.S);
- ◆Full scale high linearity (non-linearity <0.2%)
- ◆Working without external power supply, Two-wire distribution loop output
- ◆Wide range voltage input (7.5-32VDC)

Applications :

- ◆ Analog signal data isolation, acquisition
- ◆ Industrial field signal isolation
- ◆ Long-distance lossless transmission
- ◆ Analog signal ground interference suppression
- ◆ 4-20mA isolated signal transmission
- ◆ Instrumentation and sensor signal transceiver
- ◆ To overcome EMC interference between field devices
- ◆ Power monitoring, medical equipment, isolation barrier

General Description:

JieShengda Technology **JSD TAW-1001D-100L-P** series isolation transmitter is a two-wire 4-20mA current output loop isolation transmitter, this isolation transmitter adopts optical isolation technology, it has better anti-jamming ability than magnetic isolation product. The isolation conditioner internal has current signal modulation and demodulation circuit, coupled converter circuits and so on. The isolation conditioner input voltage reaches the wide range (7.5-32V) by small input equivalent resistance to meet the user does not need an external power supply to realize long-distance signal lossless transmission requirement. The isolation transmitter output is design for 24VDC and sampling resistor (or load resistance) in series with the two-wire power supply loop. Matching with the current popular analog input interface board (PC), PLC, DCS, PC or other instrumentations analog input port, internal ceramic substrates, printed resistor technology and new isolation technologies make the isolation voltage up to 3000VDC and wide industrial temperature range, it is available to work in humidity, harsh vibration environments to meet industrial environmental requirements.

JieShengda Technology **JSD TAW-1001D-100L-P** series isolation transmitter adapts international standard DIN 35mm rail mounting , users just need to wire can be achieved two-wire 4-20mA signal isolation, transmission and conversion capabilities, and to achieve signals long-distance lossless transmission. **or multi-channel isolation transmitter please choose JSD TAW-2002D-100L-P,JSD TAW-2002-100L-P,JSD TAW-3003-100L-P JSD TAW-4004-100L-P series.**

Selection and definition list:

JSD	TAW	1001D	100L	-P
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## JSD TAW-1001D-100L-P Passive two-wire 4-20mA Isolation Transmitter

Company abbreviation	Isolation passive series	1-in-1-out	4-20mA/0-20mA input/output	Output circuit power supply
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### Selections and definitions :

#### Selection example:

Example1: Input: 4-20mA; Output: 4-20mA; two-wire output circuit power supply, Model: JSD TAW-1001D-100-P

Example2: Input: 0-20mA; Output: 0-20mA; two-wire output circuit power supply, Model: JSD TAW-1001D-100-P

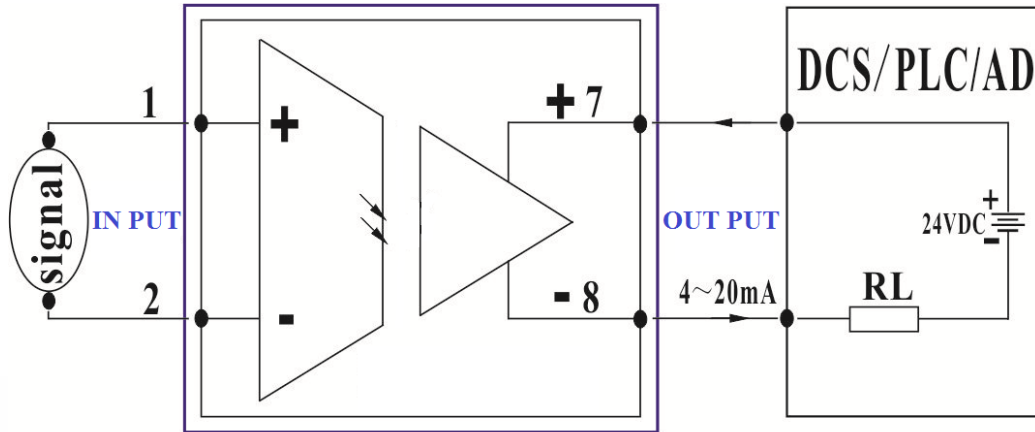
### Electrical characteristics :

Signs	Item	Test Condition	Min	Typ.	Max	Units	
Isolation characteristics	Isolation voltage	AC50Hz(Tested for 1 minute Humidity<70%, leakage current < 1mA)		3000		V(rms)	
	Insulation resistance	500VDC (input/output)		100		MΩ	
Transmission characteristics	Gain drift			±100		ppm/°C	
	Non-linearity			±0.1	±0.22	%FSR	
	Output voltage range		7.5	24	32	VDC	
	Signal input	current	4		24	mA	
	Signal output	current	4		24	mA	
	Load capacity	current	$RL \leq (U_s - 5) / 0.02$ Us: Loop power supply voltage			250	Ω
	Frequency Response	(Small-signal bandwidth )Io=20mA		2			Hz
Power input characteristics	Signal output ripple			5	10	mVRMS	
	Power supply	voltage	—	—	—	VDC	
		Power loss	—	—	—	W	
		Range	—	—	—	%	
	Operating Temperature		-45		85	°C	
	Storage temperature		-55		105	°C	
	Weight			60		g	
	size		94.5*25.5*41				mm

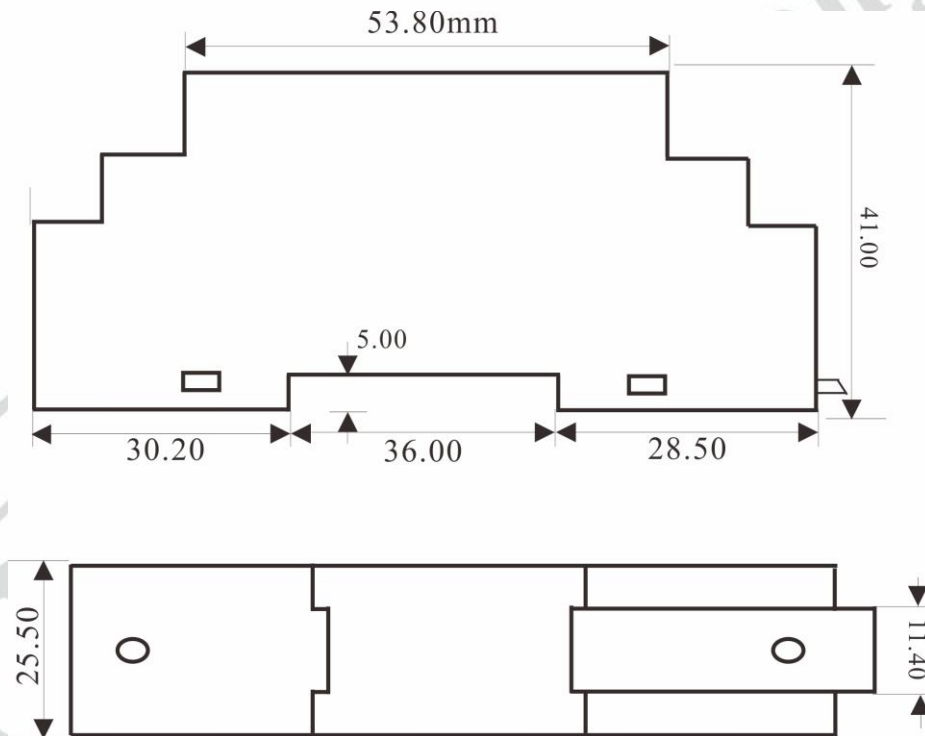
### Pins function:

Signal output Type	Pin	Function Description	Pin	Function Description	Package
Two-wire passive 4-20mA	1	Signal input +	5	NO PIN	International Standard DIN35 Rail mounting
	2	Signal input -	6	NO PIN	
	3	NO PIN	7	Power+	
	4	NO PIN	8	Signal output +	

**Wiring diagram Application:**



**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. This product's layout size diagram is "mm" and "inch" as the unit, within "[ ]" is inch
- 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



## JSD TAW-1001D-100L-P Passive two-wire 4-20mA Isolation Transmitter

- 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.