



Analog to frequency pulse signal isolation transmitter (V/F converter)

Features:

- ◆ Low cost, ultra-thin design, international standards DIN35mm rail mounting
- ◆ Three-port isolation (input, output and power supply)
- ◆ High accuracy (0.1% F.S, 0.2% F.S)
- ◆ High linearity (0.1% F.S)
- ◆ High isolation voltage (3000VDC/60S)
- ◆ Low temperature drift (80PPM/°C)
- ◆ Wide industrial class operation temperature (-45--+85°C)
- ◆ High reliability (MTBF>50 Wan hour)
- ◆ Ultra-wide range power supply design (9-36VDC single power)
- ◆ International standard signal input (0-5V/0-10V/1-5V/4-20mA/0-20mA/0-10mA/0-3.3Vetc.)
- ◆ International standard signal output (0-5KHz/0-10KHz/0-50KHz/0-100KHz/0-200KHz etc.)

Application:

- ◆ Medical electronic monitoring, environmental equipment remote telemetry and Control
- ◆ Sensor signal acquisition, isolation, conversion and transmission
- ◆ Supply 24VDC power for the sensor while acquisition signal
- ◆ Industrial Automatic control precision measurement and AD acquisition conversion
- ◆ Analog signal to frequency pulse signal isolation transmitter
- ◆ Instrumentation equipment ground interference suppression
- ◆ Data FM phase modulation measurement and control
- ◆ Machine process control and digital control technology
- ◆ Digital instrumentation acquisition isolation and signal conversion
- ◆ Supply 24VDC power for the transmitter while acquisition signal
- ◆ Analog signal/digital signal conversion
- ◆ Digital voltmeter, data measurement
- ◆ Long-distance telemetry remote control device

General Description:

Jieshengda Technology(JSD) **JSD TAF-1021S** ultra-thin series 1-in-1-out analog to frequency pulse signal converter is a high accuracy isolation transmitter.it can isolate and transform the inputting analog voltage/current signal into corresponding digital pulse frequency signal . **JSD TAF-1021S** series frequency pulse signal isolation transmitter adopts two-wire input feeding, ultra-thin shell, ultra- wide operating power supply design, its internal SMD chip technology and modular design makes the performance is more stable and reliable, The new isolation technology makes the product achieve three-port isolation (input, output and power supply),and the isolation voltage between them is up to 3000VDC. The V/F frequency pulse signal converter is widely used in phase modulation, frequency modulation, analog/digital conversion, digital voltmeter, data measurement and remote telemetry remote control device. The product has been corrected, the transmitter isolation adopts international standard DIN35mm rail installation for easy user installation. If the product fails to meet user, we provide customized. if sensors, transmitters or non-two-wire putting feeding wiring please purchase **JSD TAF-1001S** or **JSD TAF-1001** series, 2-in-2-out V/F pulse converter please purchase **JSD TAF-2002**series, data sheet please contact Jieshengda technology .



Selections and Definitions:

Product Selection Parameter List:							
Signal input code			Power supply code		Frequency signal output code		
Voltage input code		Current input code		W:	9-36VDC	1:	0-5KHz (5V voltage pulse)
1:	0-5V	A:	0-1mA	1:	24VDC	2:	0-10KHz (5V voltage pulse)
2:	0-10V	B:	0-10mA	2:	15VDC	3:	1-5KHz (5V voltage pulse)
3:	0-75mV	C:	0-20mA	3:	12VDC	4:	0-5KHz (Open collector)
4:	0-2.5V	D:	4-20mA	4:	5VDC	5:	0-10KHz (Open collector)
U:	user-defined			U:	user-defined	6:	1-5KHz (Open collector)
						U:	user-defined
Note:	When ordering ,please determine input、 output and power , special can customize						

Selection Example:

- Example 1: Signal Input: 0-10V; Signal Output :0-5KHz (5V voltage pulse); Power Supply: 12VDC;
Model: JSD TAF-1021S-231
- Example 2: Signal Input: 4-20mA; Signal Output:0-15KHz (Open collector); Power Supply: 24VDC;
Model: JSD TAF-1021S-D1U
- Example 3: Signal Input: 1-5V; Signal Output:0-20KHz (5V voltage pulse); Power Supply: 36VDC;
Model: JSD TAF-1021S-UWU

Electrical Characteristics:

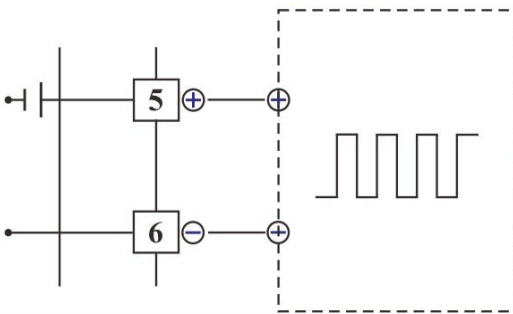
Signs	Item		Test Condition	Min	Type	Max	Units
Isolation characteristics	Isolation voltage		AC,50Hz,(Tested for 1minute,humidity<70% ,leakage current< 1mA)		3000		V(rms)
Accuracy characteristics	Non-linearity				0.1	0.2	%FSR
Input characteristics	Signal input	voltage		0		15	V
		current		0		30	mA
	Input impeda	voltage			100		KΩ
		current			100		Ω
Output characteristics	Signal output	1:0-5KHz	(5V voltage pulse)	High level: 3.0-5.5V Low level: < 0.5V load resistance:>250Ω			
		2:0-10KHz	(5V voltage pulse)				
		3:1-5KHz	(5V voltage pulse)				
		4:0-5KHz	(Open collector)	5	12	24	VDC
		5:0-10KHz	(Open collector)				
		6:1-5KHz	(Open collector)				
	Response time				≤50		mS
Power input characteristics	Power supply	voltage		5	24	36	VDC
		Power loss			1	2	W
		Rage		-10		+10	%
Other characteristics	operating temperature			-45		85	℃
	storage temperature			-55		105	℃
	size			115x100x12.5			mm
	weight					100	g
Note:	When ordering, please determine input、 output and power, special can customize						

Pin Function Description:

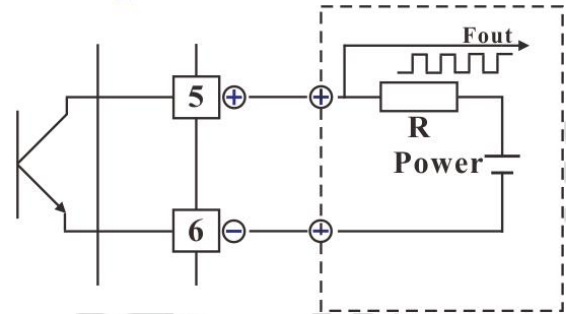
Signal Type	Pin	Function Description	Pin	Function Description	Package
Frequency Output	1	Power +	5	Signal Out +	Standard DIN35 Rail Mounting
	2	Power -	6	Signal Out -	
	3	Signal In +	7	No pin (NC)	
	4	Power out +	8	No pin (NC)	

Output wiring diagram:

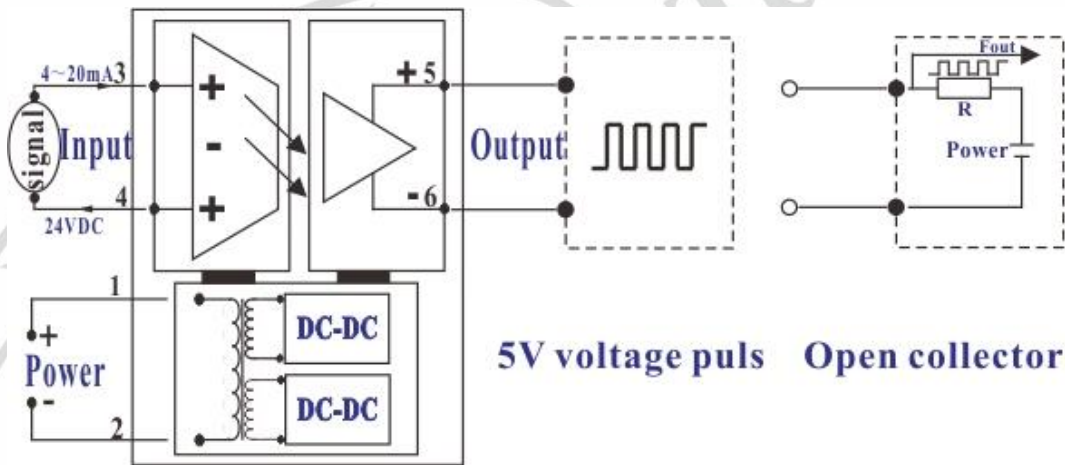
◆ **5V voltage pulse**



◆ **Open collector**



Wiring diagram:

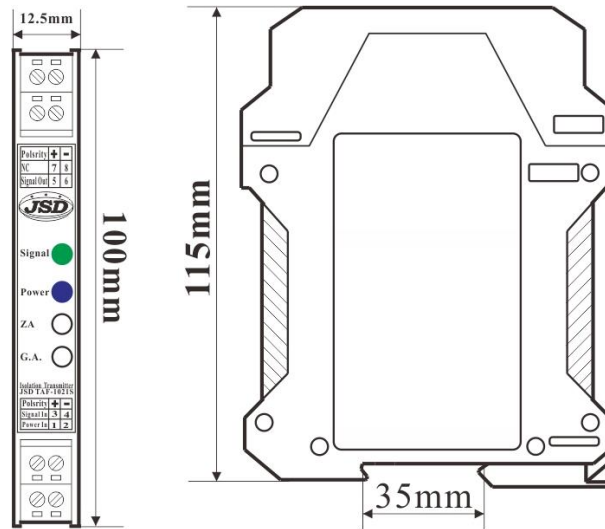


Open collector output recommended resistance table:

Power	R
+5VDC	2 KΩ
+12VDC	5.1 KΩ
+15VDC	6.8 KΩ
+24VDC	15 KΩ



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 DC power source. It is forbidden to use 220VAC power supply. "NC" pin must not be connected to any external circuit, otherwise it will damage the product itself;
- 3、 This product layout dimension are "mm" and "inch" as the unit, within "[]" are inch;
- 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.