

Encoder frequency signal to voltage or current signal with positive and reverse identification output WJ309

Product features:

- Accuracy class: 0.2
- Very high linearity in the whole range (nonlinearity<0.1%)
- Input frequency signal: 0-1KHz/0-5KHz/0-10KHz
- Support PNP or NPN encoder input
- Output standard 0-2.5V/0-5V/0-10V voltage signal
Or 0-10mA/0-20mA/4-20mA current signal
- Output a 15V level signal to indicate positive and negative rotation
- Wide power supply range: 8~32VDC
- There is a 5V power output at the input end to supply power to the encoder
- Auxiliary power supply/signal input/signal output: 3000VDC triple isolation
- Small volume, standard DIN35 rail mounted
- Industrial temperature range: -45~+80 °C



Typical applications:

- Frequency sensor signal acquisition, isolation and conversion
- Frequency signal data acquisition and control of frequency converter (FA)
- Rotating speed monitoring of generator, motor and other rotating equipment
- Transformer operating frequency detection
- Signal receiving and sending of instruments and sensors
- Encoder signal transmission
- Speed signal measurement

Product selection table:

WJ309 – F □ - P □ – V (A) □□□

Input signal		Power supply		output signal			
Frequency signal	code	Power	code	current	code	Forward and reverse	code
0-1KHz	F1	8 ~ 32VDC	P1	0-20mA	A3	The default is 15V Level output, Forward to high level, Reverse low level	nothing
0-5KHz	F2			4-20mA	A4		
0-10KHz	F3			User defined	Au	NPN collector Open circuit output, Forward NPN disconnected, Reverse NPN conduction.	NPN
User defined	Fu			voltage	code		
				0-5V	V1		
				0-10V	V2		
				1-5V	V6		
				User defined	Vu		

Examples of product selection:

Example 1: Input: 0-1KHz;Power supply: 24V; output: 0-5V; positive and reverse rotation output 15V level;Model: DIN11 IAP F1-P1-V1

Example 2: Input: 0-5KHz;Power supply: 12V; output: 4-20mA; positive and reverse rotation output 15V level;Model: DIN11 IAP F2-P2-A4

Example 3: Input: 0-10KHz;Power supply: 24V; output: 0-10V; positive and reverse rotation output 15V level;Model: DIN11 IAP F3-P1-V2

Example 4: Input: 0-10KHz;Power supply: 24V; output: 4-20mA; positive and reverse rotation output 15V level;Model: DIN11 IAP F3-P1-A4

Example 5: Input: user-defined;Power supply: 24V; output: user-defined, positive and reverse output NPN;Model: DIN11 IAP Fu-P1-Vu-NPN

General parameters

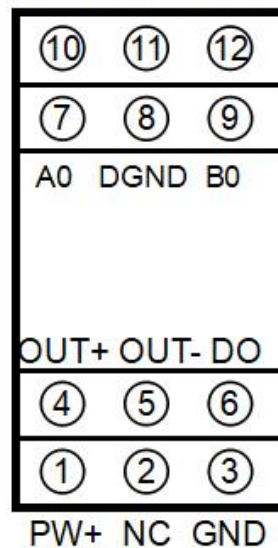
Parameter name		Test conditions	minim	Typical	maxim	unit
Isolation voltage		1min		three		VDC
Signal input	Amplitude (V_{p-p})			five		V
	Frequency		zero	ten	one	kHz
	Frequency input low		zero	zero	one	V
	Frequency input high		three	five	twenty-f	V
signal output	Voltage load capacity	5V	2K	10K		Ω
	Current load capacity	20mA	zero	two	three	Ω
response time				one		ms
Auxiliary power supply	voltage		eight	twenty-four	thirty-t	VDC
	current	VD=12V		eighty-three		mA
Auxiliary power consumption				one		W
Operating ambient temperature			-40		eighty-f	$^{\circ}\text{C}$
Storage temperature			-40		eighty-f	$^{\circ}\text{C}$

Pin definition:

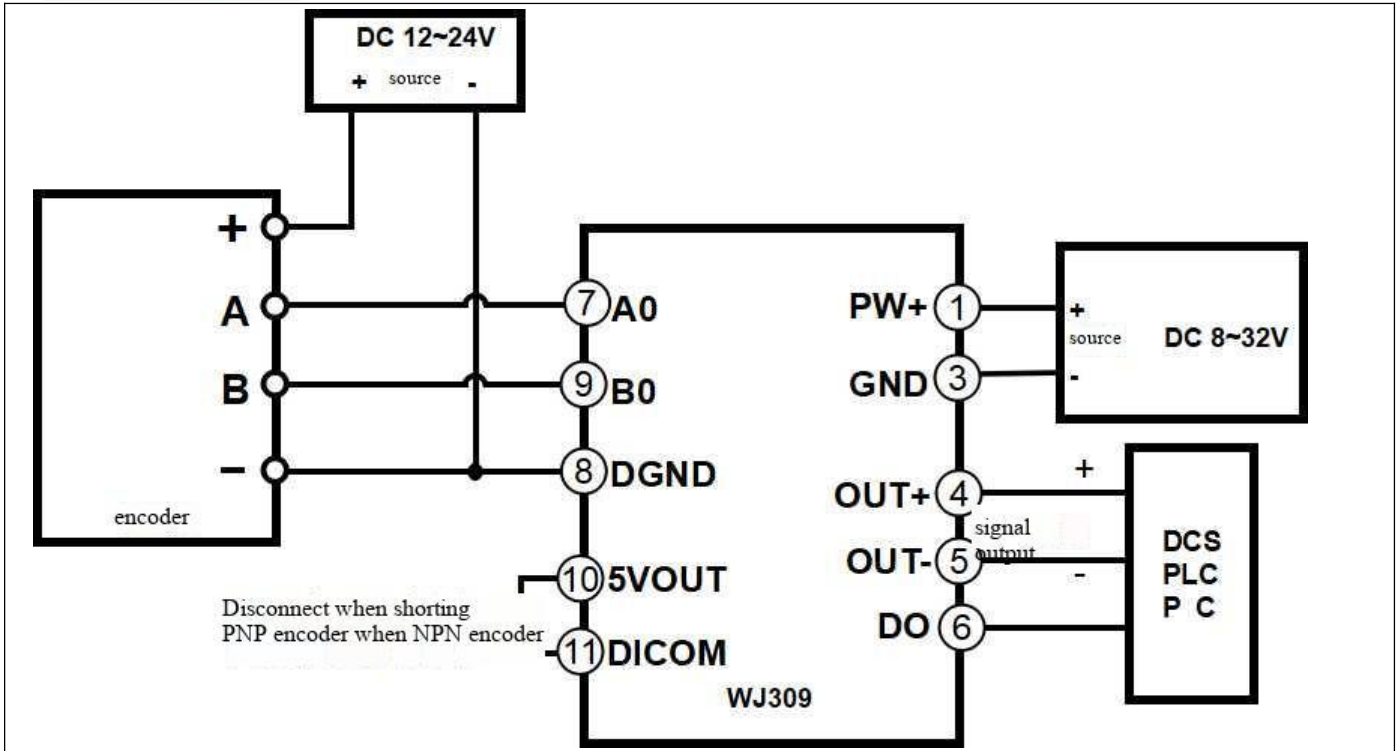
Pin	Name	Description	Pin	Name	Description
one	PW+	Positive end of power supply	seven	A0	Encoder A signal input terminal
two	NC	Empty foot	eight	DGND	Encoder 0V input terminal
three	GND	Negative terminal of power supply	nine	B0	Signal input end of encoder B
four	OUT+	Analog signal output positive terminal	ten	5VOUT	5V power output terminal
five	OUT-	Analog signal output negative terminal	eleven	DICOM	Input signal pull-up resistance common terminal
six	DO	Positive and reverse level output terminal	twelve	NC	Empty foot

Note: If the level of forward and reverse output is opposite to the required level, the A0 and B0 lines can be exchanged

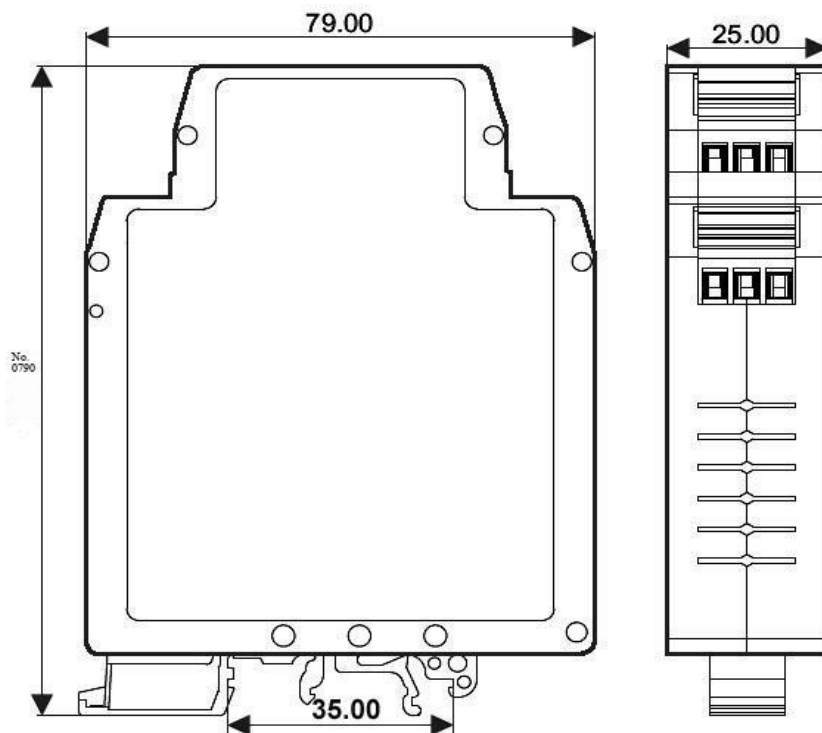
5VOUT DICOM NC



WJ309 Wiring Instructions



Overall dimension: (unit: mm)



Can be installed on standard DIN35 guide rail

Precautions:

1. Before use, carefully check and confirm the product quantity, model and specification according to the packing list and product label.
2. During use, the signal input, output and power lines must be correctly connected according to the wiring reference diagram corresponding to the selected product model, and the power and signal can be connected after the check is correct.
3. When measuring the signal directly with a probe, screw the terminal tightly.
4. The use environment should be free of conductive dust and corrosive gases that damage insulation and metal.
5. In case of centralized installation, the installation spacing shall be $\geq 10\text{mm}$.
6. The product has been adjusted before delivery, please do not adjust it at will. Please contact our company if it is necessary to conduct on-site calibration.
7. The product is of integrated structure and cannot be disassembled. Meanwhile, collision and falling shall be avoided. This product is guaranteed for 2 years, during which the company will repair or replace it free of charge. Any label on the product that is artificially damaged or altered or torn off will not be returned or replaced.
8. There is no lightning protection circuit inside the product. When the input and output feeders of the product are exposed to outdoor harsh climate, please take lightning protection measures.
9. Product specifications are subject to change without notice.

Warranty:

Within two years from the date of sale of this product, if the user complies with the storage, transportation and use requirements, but the product quality is lower than the technical indicators, the product can be returned to the factory for free maintenance. In case of damage due to violation of operating regulations and requirements, the device cost and maintenance cost shall be paid.

Copyright:

Copyright© 2024 Shenzhen Weijunrui Technology Co., Ltd.

No part of this manual may be reproduced, distributed, translated or transmitted without permission. This manual is subject to change and update without notice.

Trademark:

Other trademarks and copyrights mentioned in this manual belong to their respective owners.

Version No.: V1.0

Date: October 2024

This document was translated by AI, so there may be inappropriate descriptions. If you have any questions, please contact us via email: sales@wayjun.net