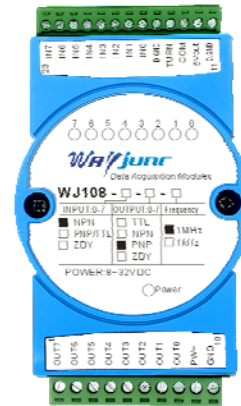


8-channel NPN to PNP, 5V level to 24V Level, Signal Converters WJ108 series

Features:

- >> 8-channel NPN signal to PNP signal high-speed conversion
- >> 8 channels 0-5V level to 0-24V level
- >> 8 channels of TTL level to 0-24V level
- >> 8 channels of NPN signal to TTL level
- >> 8 channels 0-24V level to 0-5V level
- >> Supports input signal and output signal level inversion
- >> Level conversion speed can reach 1MHz
- >> Isolation 3000VDC between input and output
- >> Wide power supply range: 8 ~ 32VDC
- >> Standard DIN35 rail, for centralized wiring
- >> Size: 120 x 70 x43 mm

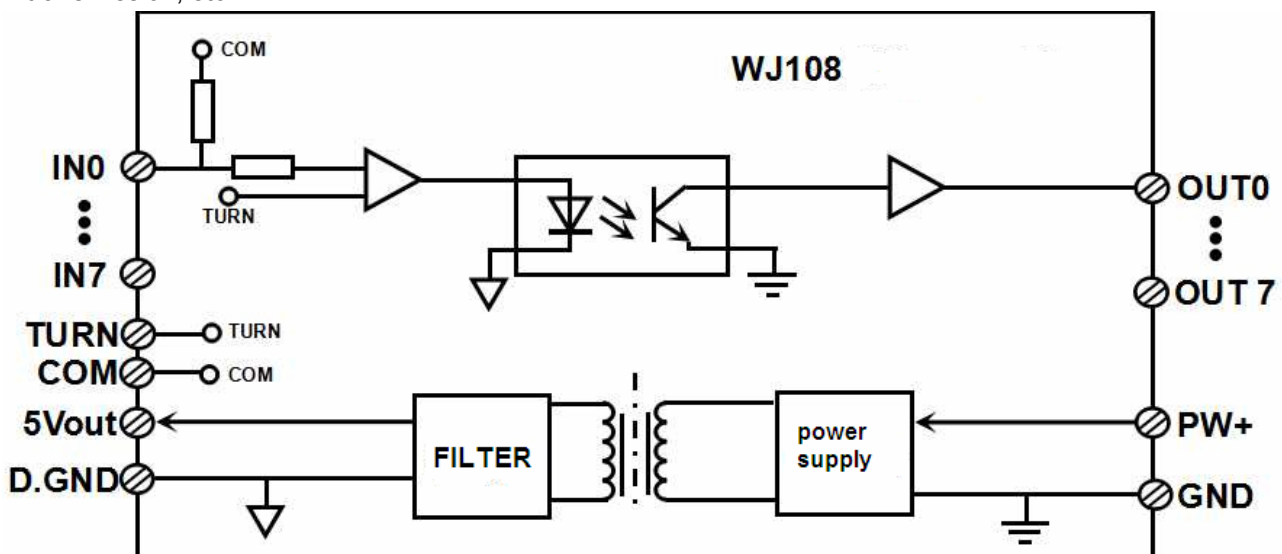


Application:

- >> Level conversion between different devices
- >> Encoder signal is connected to PLC
- >> Intelligent building control, security engineering and other application systems
- >> DI isolator for industrial automation control system
- >> Industrial field signal isolation and long-term transmission
- >> Equipment operation monitoring
- >> Sensor signal measurement
- >> Motor speed monitoring system
- >> Ground wire interference suppression
- >> Photoelectric switch etc. digital signal acquisition such as

Product description:

The WJ108 series products realize the isolation conversion and collection of various switching signals, and supports up to 8 switching signals. They can be used in industrial automation control systems, digital DI signal measurement, monitoring and control, as well as industrial field signal isolation and long-term transmission, etc.



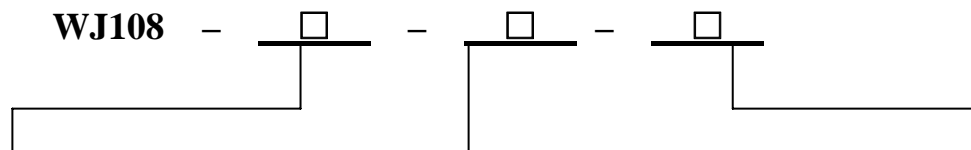
WJ108 Block Diagram

Level Signal Isolators & Conditioners

Products include power isolation, high-speed isolation of 8-channel signals. The module can provide a 5V power supply to the input terminal with a maximum current of 100mA, which can be used to power the photoelectric sensor. The module also has an input and output level flip function, which can control the output signal to be inverted according to needs. The product supports the direct mutual conversion of multiple parameters, such as the isolation and conversion of 0-5V, 0-24V, NPN, PNP and other parameters. The specific output parameters of the product need to be determined through selection. Please refer to the wiring diagram for product wiring

WJ108 series products are designed and manufactured in accordance with industrial standards, with isolation between signal input and output, withstand 3000VDC isolation voltage, strong anti-interference ability and high reliability. Operating temperature range-45 ~ +85deg.C.

Products Listing:



Signal input	Signal output	Frequency response
<p>NPN: open collector, passive input</p> <p>PNP: 0-5V level, 0-24V level</p> <p>TTL level etc. active voltage signal input</p> <p>ZDY: user-defined, special parameters customization</p>	<p>TTL: 0-5V level, TTL level output</p> <p>NPN: open collector output, the output is a passive switching signal</p> <p>PNP: low level 0V</p> <p>The high-level voltage is the power supply voltage minus 1V.</p> <p>Output 0-24V level , use 24V power supply</p> <p>Output 0-15V level, use 15V power supply</p> <p>Output 0-12V level, use 12V power supply</p> <p>ZDY: user-defined, special parameters customization</p>	<p>Default: up to 1MHz</p> <p>1MHz: up to 1MHz</p> <p>1KHz: up to 1KHz</p> <p>Product default value is high speed 1MHz, If need low speed 1KHz, please specify.</p>

Selection Guide:

1. NPN input, PNP output, frequency response is 1MHz
Type No.: **WJ108-NPN-PNP**
2. 0-5V level input, 0-24V level output, frequency response is 1MHz
Type No.: **WJ108-PNP-PNP, use 24VDC power supply**
3. 0-5V level input, 0-12V level output, frequency response is 1MHz
Type No.: **WJ108-PNP-PNP, use 12VDC power supply**
4. NPN input, PNP output, frequency response is 1KHz
Type No.: **WJ108-NPN-PNP-1KHz**
5. 0-5V level input, 0-24V level output, frequency response is 1KHz
Type No.: **WJ108-PNP-PNP-1KHz, use 24VDC power supply**

6. 0-5V level input, 0-12V level output, frequency response is 1KHz

Type No.: **WJ108-PNP-PNP-1KHz, use 12VDC power supply**

7. NPN input, TTL output, frequency response is 1MHz

Type No.: **WJ108-NPN-TTL**

8. 0-24V input, TTL output, frequency response is 1MHz

Type No.: **WJ108-PNP-TTL**

WJ108 general parameters:

(typical @ +25°C, Vs is 24VDC)

Input type: PNP /TTL/0-5V/0-24V input: low level: input <1V

High level: input 3.5 ~ 30V

Input resistance: 10KΩ

NPN/open collector input: pull-up voltage: 5V

Pull-up resistance: 10KΩ

Output type: PNP / 0-24V output: Output current: maximum 30mA, please do not overload the output, otherwise the module will be burnt out.

Output voltage: 0V~ power supply voltage minus 1V

TTL/0-5V output: output current: maximum 10mA, please do not overload the output, otherwise the module will be burnt out.

Output voltage: 0V-5V

NPN/ open collector output: external pull-up voltage 0~30V, pull-up resistance optional 3K~10K ohm, maximum load current 30mA.

Working power supply: +8 ~ 32VDC wide power supply range, internal anti-reverse connection and over-voltage protection circuit.

Frequency response: The default product is 1MHz. You can also choose 1KHz to reduce costs.

Power consumption: less than 2W

Working temperature:-45 ~ +80°C

Working humidity: 10 ~ 90% (non-condensing)

Storage temperature:-45 ~ +80°C

Storage humidity: 10 ~ 95% (no condensation)

Isolation withstand voltage: 3000VDC isolation

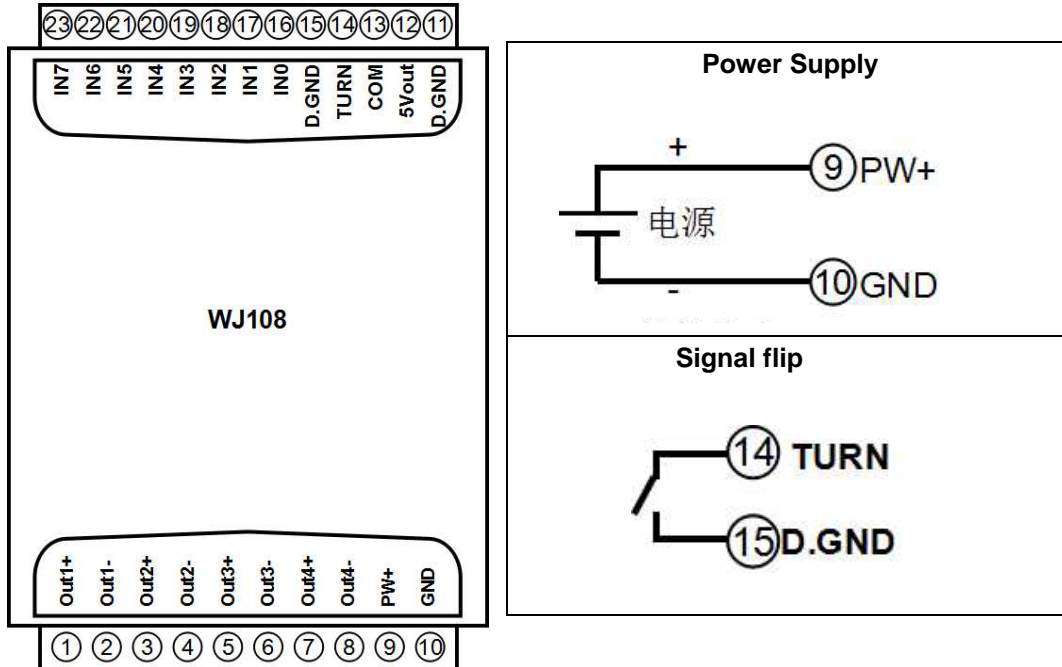
Dimensions: 120 mm x 70 mm x 43mm

Footprint and wire diagram:

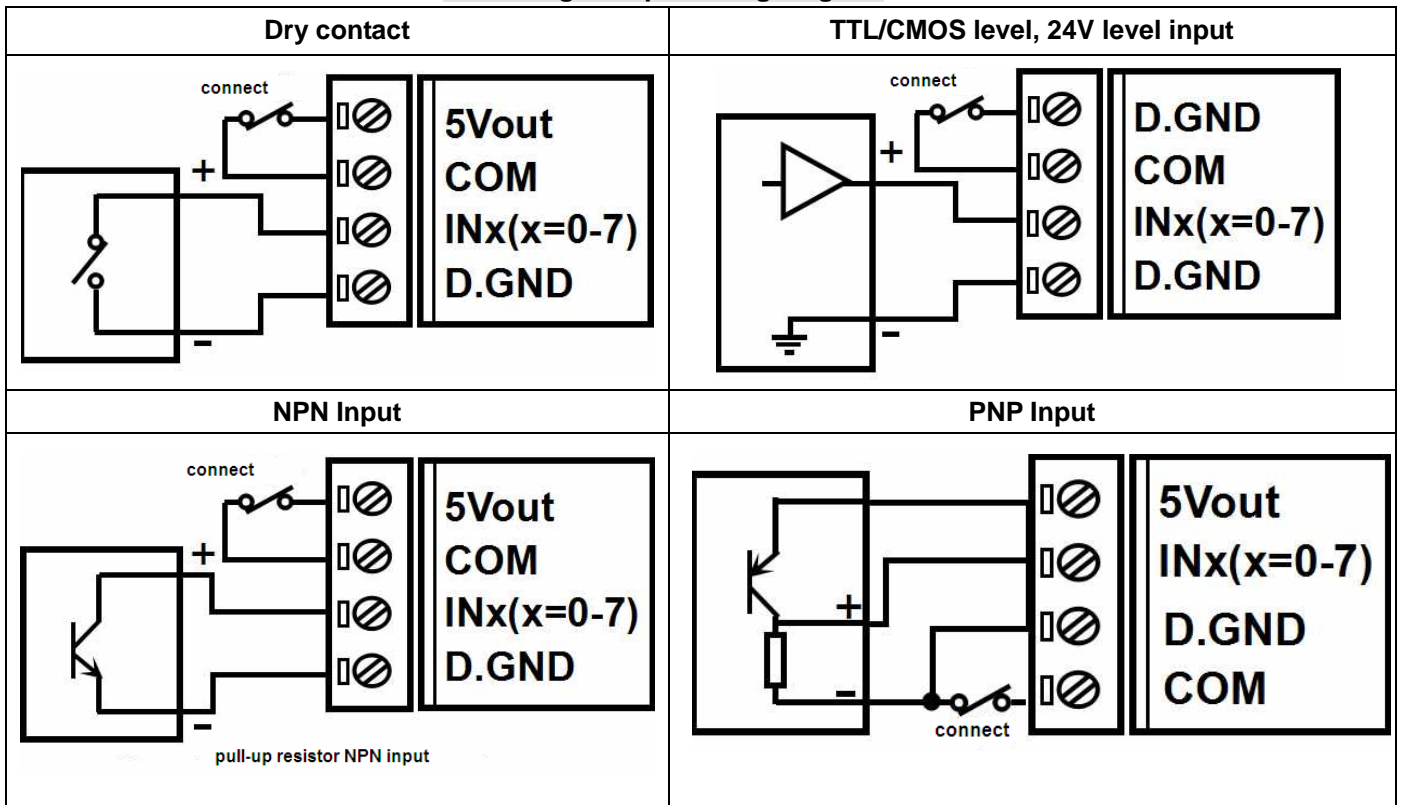
PIN	Name	Description	PIN	Name	Description
1	OUT7	Output Channel 7	11	D.GND	PWM signal input+
2	OUT6	Output Channel 6	12	5Vout	5V voltage output
3	OUT5	Output Channel 5	13	COM	Signal input pull-up resistor common
4	OUT4	Output Channel 4	14	TURN	Signal input flip control
5	OUT3	Output Channel 3	15	D.GND	Signal input common ground
6	OUT2	Output Channel 2	16	IN0	Input Channel 0
7	OUT1	Output Channel 1	17	IN1	Input Channel 1
8	OUT0	Output Channel 0	18	IN2	Input Channel 2
9	PW+	Power supply+	19	IN3	Input Channel 3

Level Signal Isolators & Conditioners

10	GND	Power supply-,COM	20	IN4	Input Channel 4
			21	IN5	Input Channel 5
			22	IN6	Input Channel 6
			23	IN7	Input Channel 7



WJ108 Wiring Diagram
Switch signal input wiring diagram



Switch signal NPN output wiring diagram

Drive Relay	Level Output
<p style="text-align: center;">NPN-驱动继电器</p> <p>The external power supply can be 5 ~ 30VDC Relay working current is less than 30mA</p>	<p style="text-align: center;">NPN-电平输出</p> <p>The external power supply can be 5 ~ 30VDC Resistance working current is less than 30mA</p>

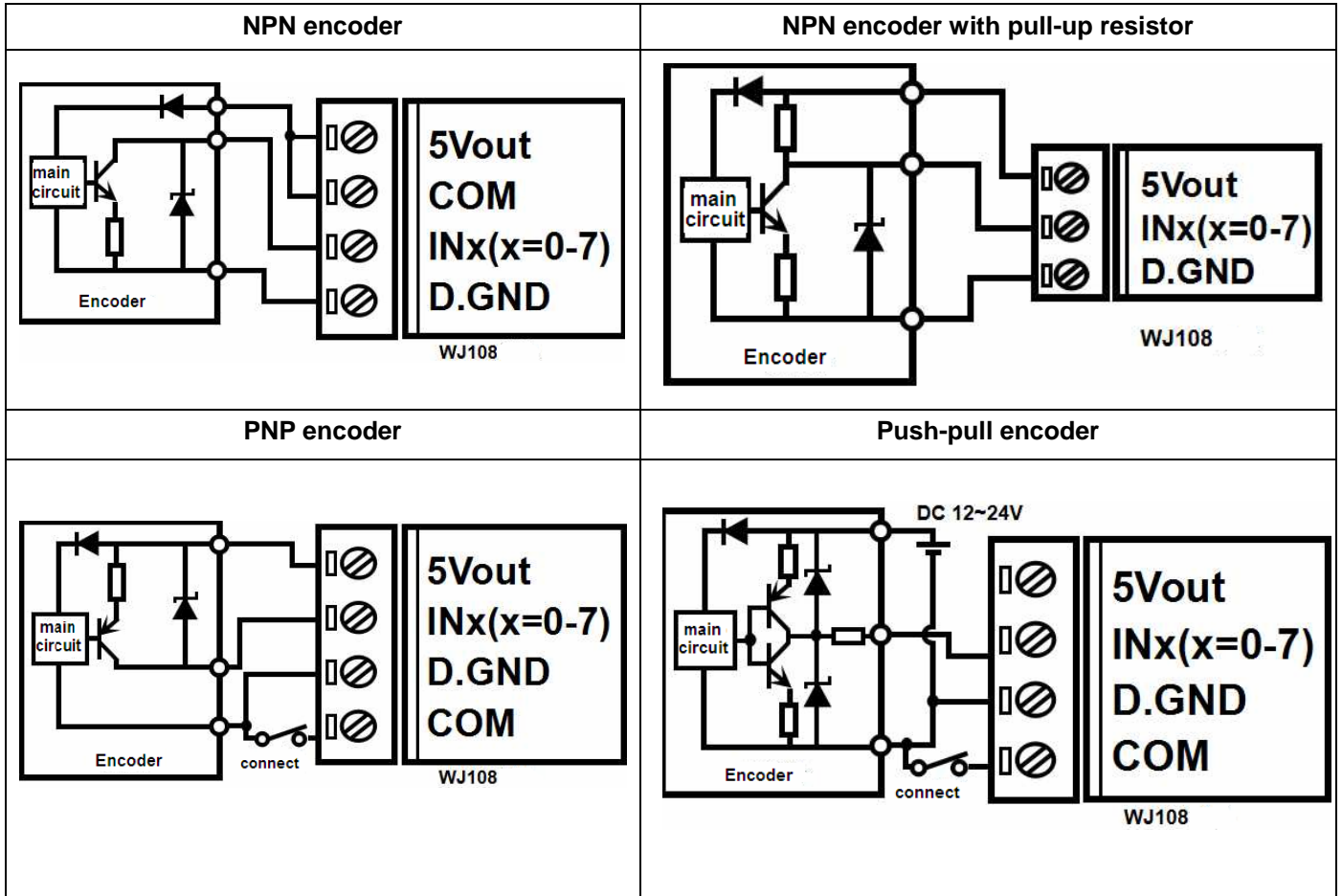
Switch signal PNP output wiring diagram

Drive Relay	Level Output
<p style="text-align: center;">PNP-驱动继电器</p> <p>Output drive current is less than 30mA</p>	<p style="text-align: center;">PNP-电平输出</p> <p>Load working current is less than 30mA</p>

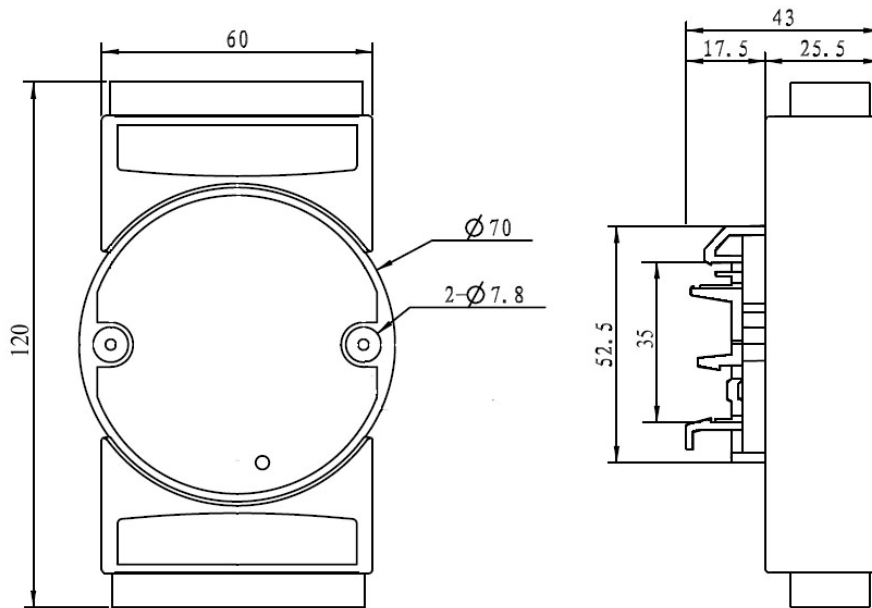
Switch signal TTL level output wiring diagram

TTL Level Output	

Encoder input wiring example



Size (unit: mm) DIN35 rail-mounted



Note:

1. Before using, according to packing lists, and product labels, check the quantity, models and specifications
2. When measure the signal directly, please set the terminal tighten
3. There are no damaged insulation, conductive dust and corrosive fumes of metal in the environment
4. Installation pitch ≥ 10 mm
5. We have adjusted well, do not adjust arbitrarily
6. Two years warranty. But if clients damage products by themselves or tear off any labels on the product, we can not exchange
7. Products can not been used in strong magnetic field
8. Internal no anti-lightning circuit
9. Specifications subject to change without notice

Warranty

Two years (but violate operating rules and requirements to create damage, clients need pay maintenance costs)

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