



SPECIFICATION

BX-ZJ100 Converter of DC signal

Version: V1.1 Date: 2023.5.16

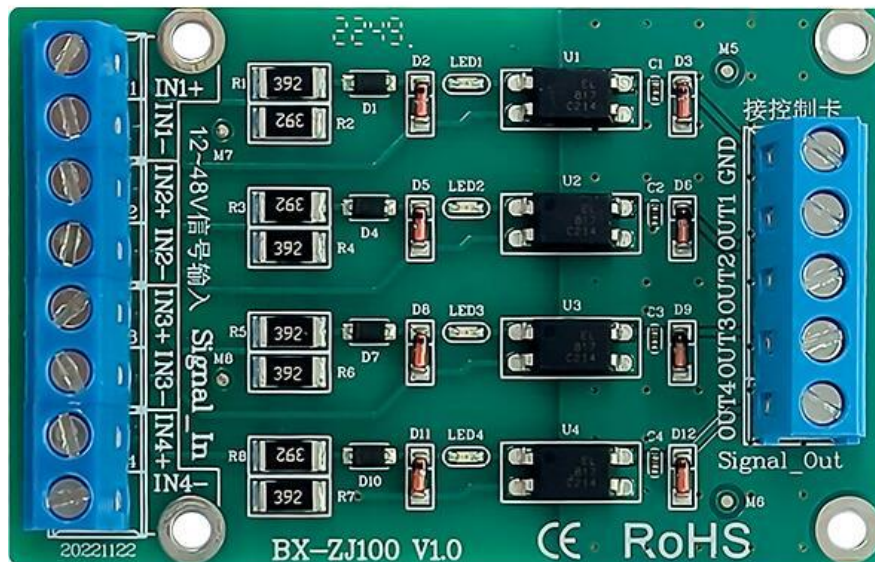
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Safety Instruction	1
Photo of product	1
Product characteristics	2
Functions	3
Indicator light of input signal	3
12~48VDC input voltage converting	3
Input channels are separated from each other	3
Input signal high effective or low effective	3
Output driving characteristics	3
Technical index	4
Application connection	5
Voltage signal converting	5
Size	6
Port	7
Attention	8
Access signal	8
Wire diameter	8
CONTACT US	9

Safety Instruction

- ◆ Please make sure that all the power supply cables are plug off when you need to connect or plug off any signal and control cables.
- ◆ Please remember to turn off the power supply before doing any hardware operations.
- ◆ Please make sure the environment is clean, dry and ventilated when you use this product, also, do not put this product to a high temperature and wet environment.
- ◆ This product is electronic products, please keep away from fire, water source and flammable&combustible products.
- ◆ There are high pressure components in this products, please do not open the box and repair it by yourself.
- ◆ Turn off the power supply immediately when you find smoking, peculiar smell or something unusual. And contact with us soon.

Photo of product



Product characteristics

- ◆ Isolate and Convert 12~48VDC switch signal to 0~3.3V or 0~5.0V switch signal.
- ◆ Support 4 channels signal converting, and isolate 4 input channels, allow users to switch on 12V-48V.
- ◆ Isolation strength of input and output is 5000VRMS.
- ◆ The output is open collector output, used to dock, drive outside pull-out signal (3.3V~5.0V).
- ◆ Disturbance voltage restraint. It can restrain the voltage under 9V.
- ◆ Reverse connection design: If users did reverse connection, signal will be invalid and the equipment will not be damaged.
- ◆ According to different connection, users can set input high effective or low effective.

Functions

Indicator light of input signal

Each input signal of BX-ZJ100 adopts LED diode and it will be light after connect 12~48VDC signal. Also, it will be off after delete input signal.

12~48VDC input voltage converting

12~48VDC input voltage converts to 0~3.3V (or 0~5.0V) switch signal (isolate)
BX-ZJ100 adopts high isolated optical coupler design, it can convert 12~48VDC input signal to 0~3.3V (or 0~5.0V) switch signal, also, isolated input and output electric.

Convert relation is:

When input 12~48VDC signal, converter board output low electrical level (0.3V).

When delete 12~4.8VDC signal, converter board output high electrical level (3.3V or 5.0V).

Isolated strength of once input side and twice output side: 5000VRMS.

Input channels are separated from each other

Four channels are separated from each other, and allow users to access different voltage logic signal. Example: channel 1 accesses 12V signal; channel 2 accesses 24V signal.

Input signal high effective or low effective

Users can set input signal high effective or low effective by different connection.

Output driving characteristics

The output is open collector output, used to dock, drive outside pull-out signal (3.3V~5.0V).

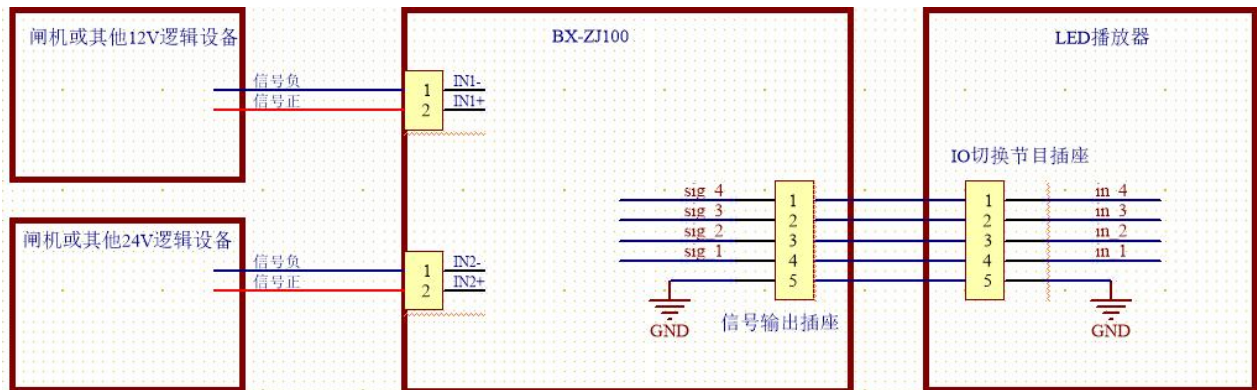
It is decided by outside pull-out voltage to output high electrical level 3.3V or 5.0V.

Output low electrical level is 0~0.3V.

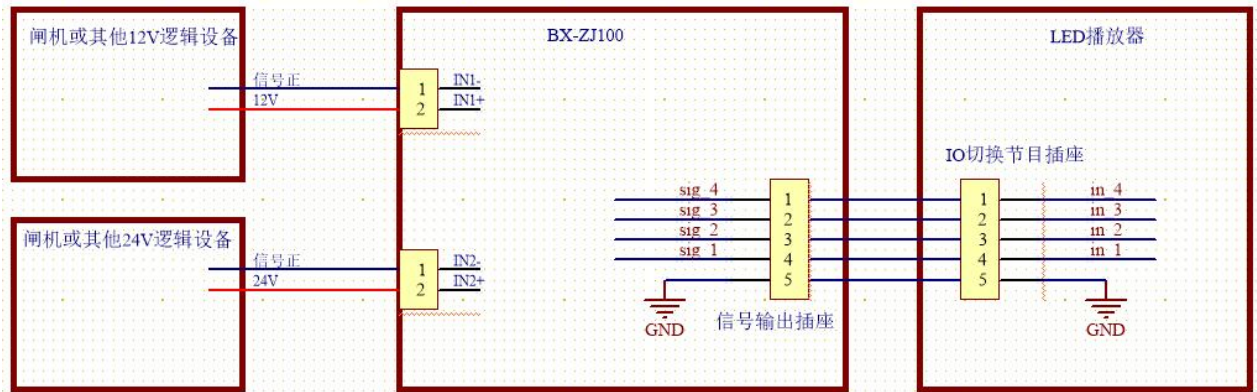
Technical index

Parameters	Symbol	Attention	Parameter value (MIN ~ MAX)
Input signal maximum voltage	V	Will damage equipment if it's more than this value	75V
Input signal working voltage	V	Equipment will be hot if it's more than 48V	12 ~ 48VDC
Input signal start and end voltage	V	Input voltage should more than or equal to this value	12V
Output signal electrical level high electrical level	OUT_V	3.3V, 10K pull out	3.3V
		5.0V, 10K pull out	5.0V
Output signal electrical level low electrical level	OUT_V	1K pull out	0.3V
		10K pull out	0V
Input DC	I_in	12V voltage logic	2*4=8mA
		48 V voltage logic	20*4=80mA
Respond	T_test	10K pull out	1mS
Isolated strength	VISO	Isolated strength of input and output	5000VRMS
Working temperature	T_work	/	-40°C ~ 80°C

Application connection

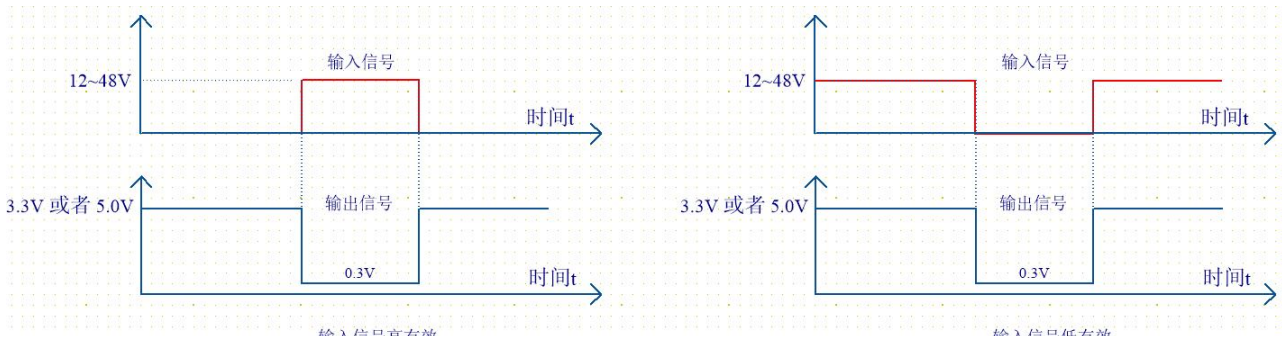


输入信号高有效接线方法

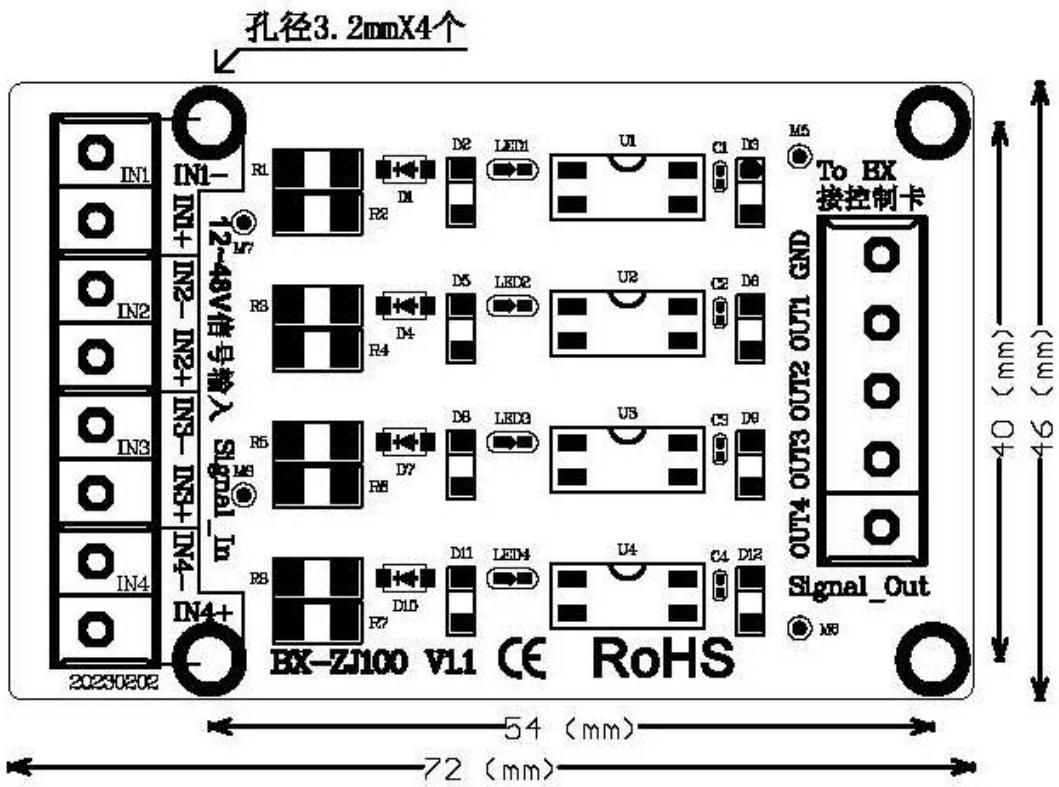


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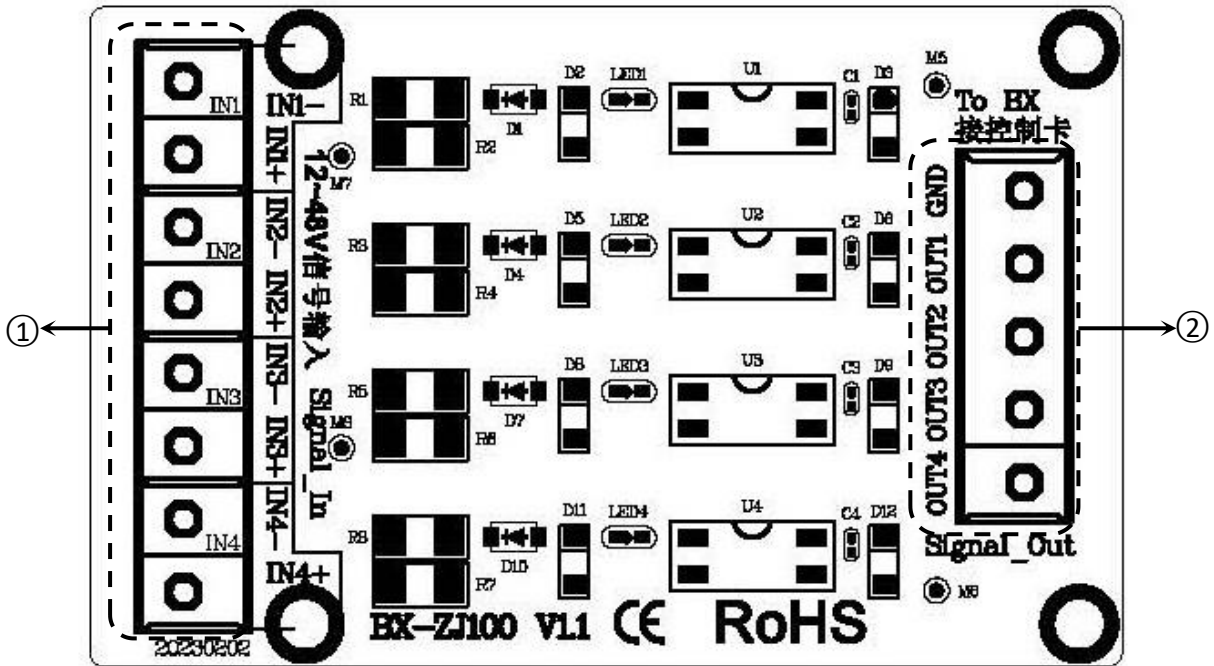
Voltage signal converting



Size



Port



Port		
1	IN1	Input signal: 12 ~ 48V
	IN2	Four channels are separated from each other, and allow users to access different voltage logic signal.
	IN3	
	IN4	Users can set input signal high effective or low effective by different connection.
2	Signal_Out	Signal output 0V ~ 3.3V or (0 ~ 5.0V)
Corresponding signal		IN1: OUT1, IN2: OUT2 , IN3: OUT3 IN4: OUT4

Attention

Access signal

It supports 12~48VDC signal converting, four channels are separated from each other, and allow users to access different voltage logic signal.

Signal cable from BX-ZJ100 to LED controller should be at least 0.5M

Pay attention to the positive and negative of signal. It won't damage equipment, but you will not get any testing result.

Wire diameter

Maximum electricity is 80mA, so, the wire diameter should be at least 0.5mm².

CONTACT US

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