PLC LV5V-8BX BD

Module Manual
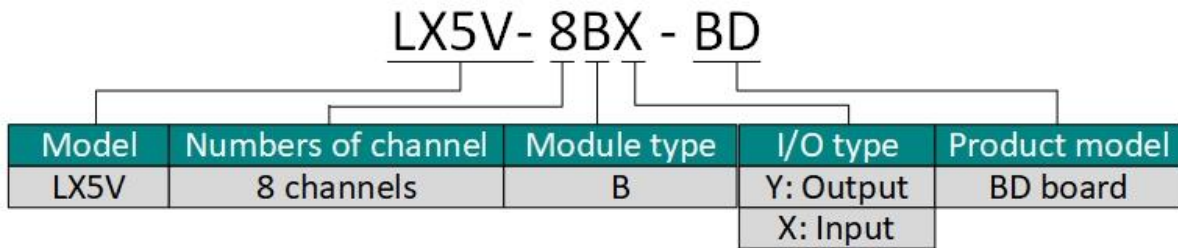
V1.0

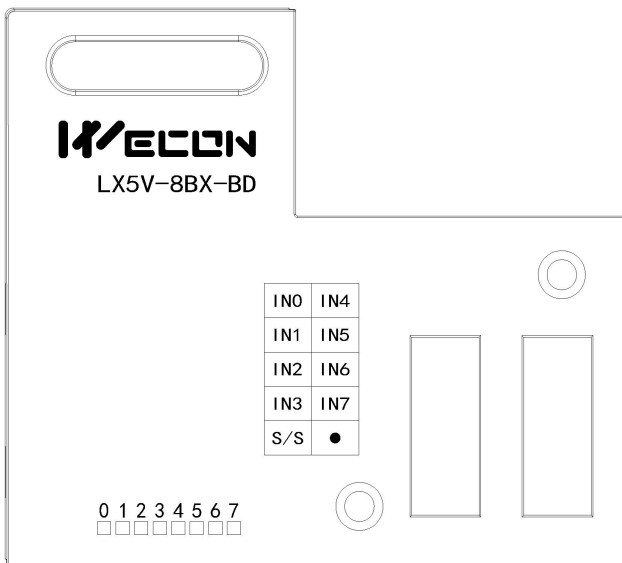**Website:** http://www.we-con.com.cn/en
Phone: 86-591-8786886

1 Naming rules

LX5V- 8BX - BD

Model	Numbers of channel	Module type	I/O type	Product model
LX5V	8 channels	B	Y: Output X: Input	BD board

2 Appearance and terminal
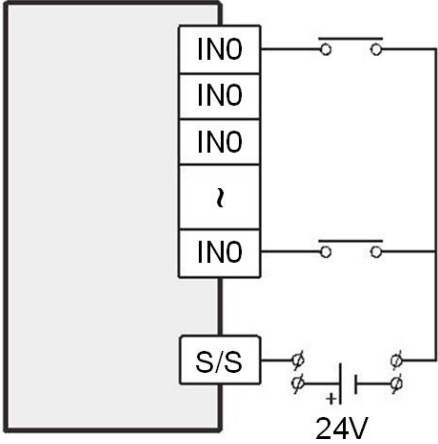
Terminal description	
IN0	Input point 1
IN1	Input point 2
IN2	Input point 3
IN3	Input point 4
S/S	Input common terminal
IN4	Input point 5
IN5	Input point 6
IN6	Input point 7
IN7	Input point 8
-	Not connected

✎**Note:** Hot swapping is not supported by BD module! Please power on the PLC host after the BD module is installed.

● **Weight:** about 0.03 kg.
● **LED indicator:** 0 to 7 indicates channels IN0 to IN7. The light is ON when there is output, and the light is OFF when there is no output.
● **Installation position:** It can only be installed in BD1 card slot of PLC host.

3 Input specification

| Project	Input
Model	LX5V-8BX-BD
Input circuit composition	 NPN Connection: S/S connected to 24V PNP Connection: S/S connected to 0V ✎**Note:** NPN connection is shown in the figure.
Input signal voltage	DC±24V ±10%
Input signal current	5mA/DC24V
Input ON current	Above 3.5 mA
Input OFF current	Below 1.5 mA
Input response time	About 10ms
	X0~X7 built-in digital filter. Setting range: 0 to 64ms.
Input signal	Contact input, NPN or PNP
Circuit insulation	Digital capacitor isolation insulation
Input action display	When ON is input, the LED is on.

4 PLC device description

| BD module	PLC	Instructions for use
LX5V-8BX-BD	LX3V	**D8112:** The lower eight bits are used to display the input status of 8 terminals in IN0 to IN7. **D8114** is used to set input filter time in IN0 to IN7. (Range: 0 to 64ms, and the minimum filtering time should be set to 5ms or more.)
	LX5V	When the PLC firmware version is 2.050 and below, the usage is as follows: **SD2010:** The lower eight bits are used to display the input status of 8 IOs in IN0 to IN7. SD2012 is used to set input filter time in IN0 to IN7. (Range: 0 to 64ms, and the minimum filtering time should be set to 5ms or more.)
		When the PLC firmware version is 2.051 and above, the usage is as follows: **I/O mapping:** IN0 to IN7 fixed Mapping to X1000 to X1007. **Response time**: 0.1 to 3276.7 ms. (Response time: The interval time for PLC to write data to BD module.) **Filter time:** 0 to 64ms. (IN0 to IN7 use the same filtering time parameter, and the minimum filtering time should be set to 5ms or more.) **BD monitoring function.** (See buffer memory description for details.)

5 Instructions for use

5.1 Used on LX5V series host

1 Parameter configuration

① Open the host computer software and create a new project, double-click "Project Manager" → "Extended Function" → "BD Module Configuration" ^{Note} to enter "BD settings" interface;

② Select "LX5V-8BX" in the device bar on the right side of the BD module configuration interface and double-click to add it to the corresponding slot position of PLC (slot 1 or 2, the software will select slot 1 by default. You could right-click it to move to slot 2);

③ After adding BD module to the machine slot, double-click or right-click to select configuration parameters to enter LX5V-8BX-BD configuration parameters interface, as shown in the following figure:
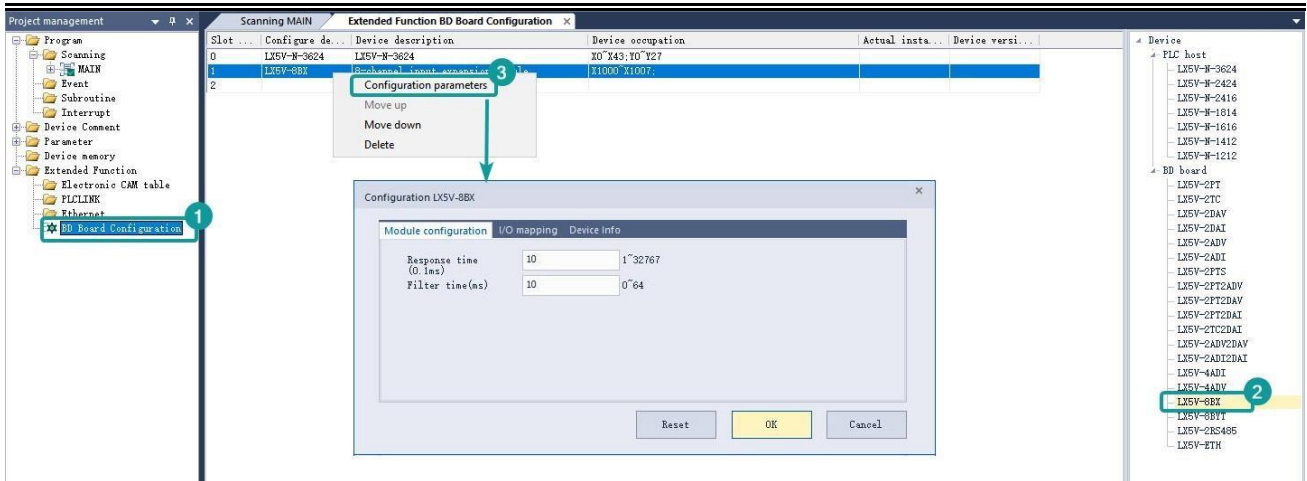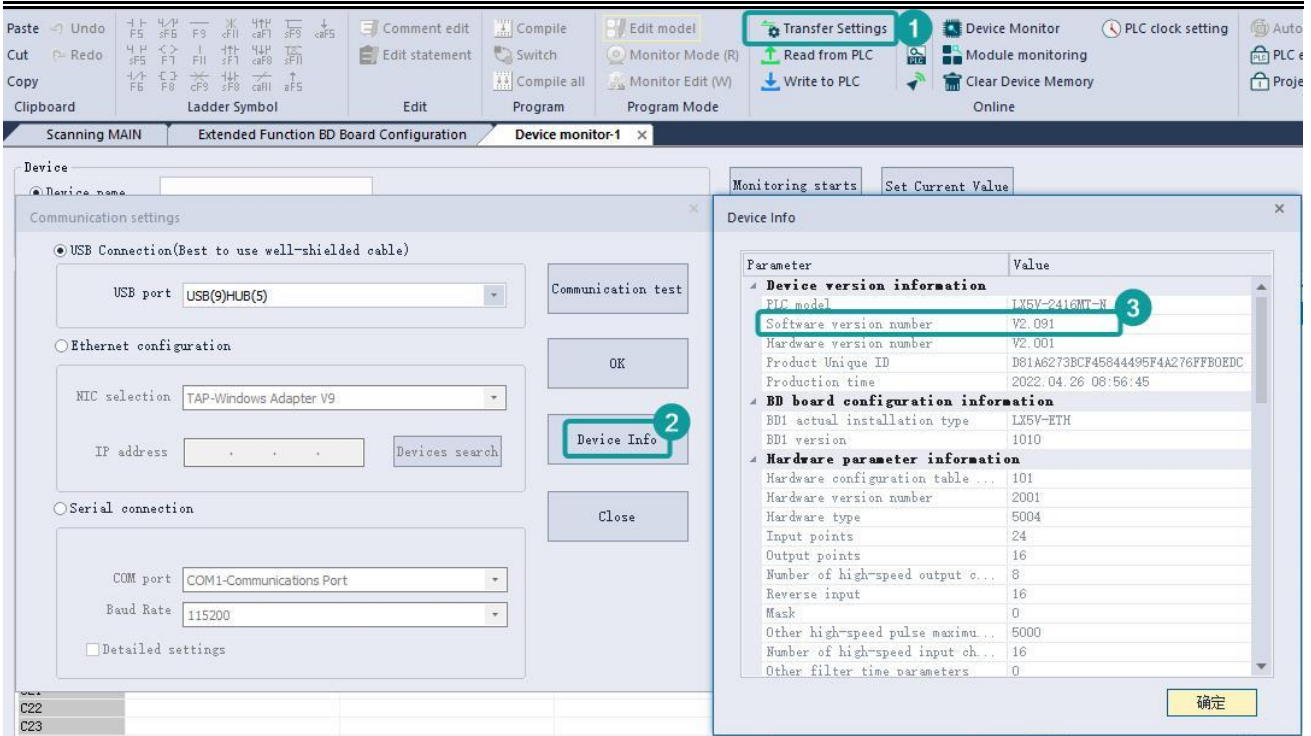
✎**Note:** This function is only supported in the following host computer and slave computer versions:

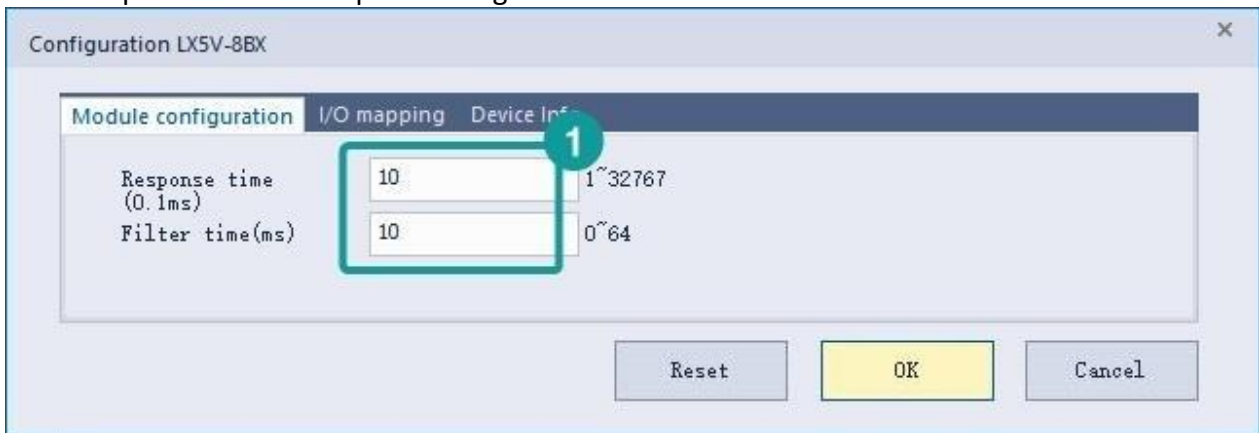Supported upper computer versions: Wecon PLC Editor 2 2.1. 204 and above, as shown in the following figure:
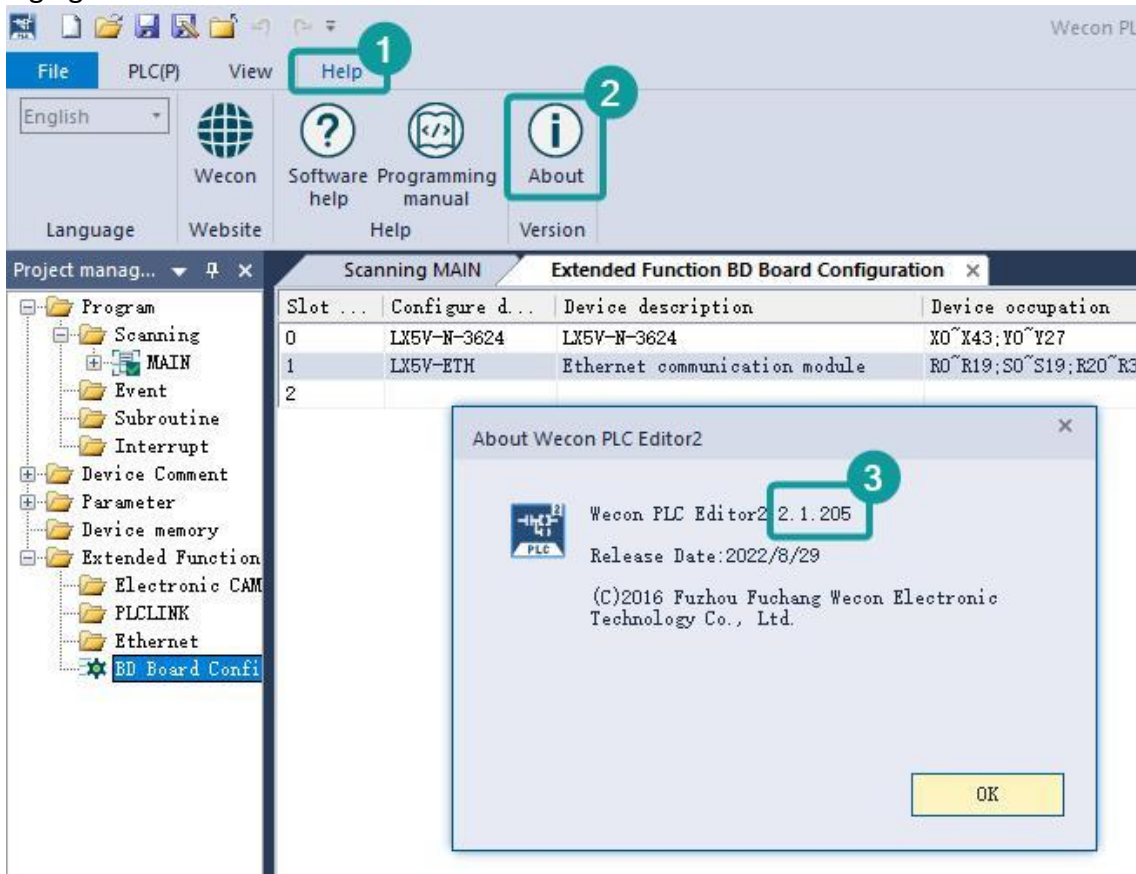
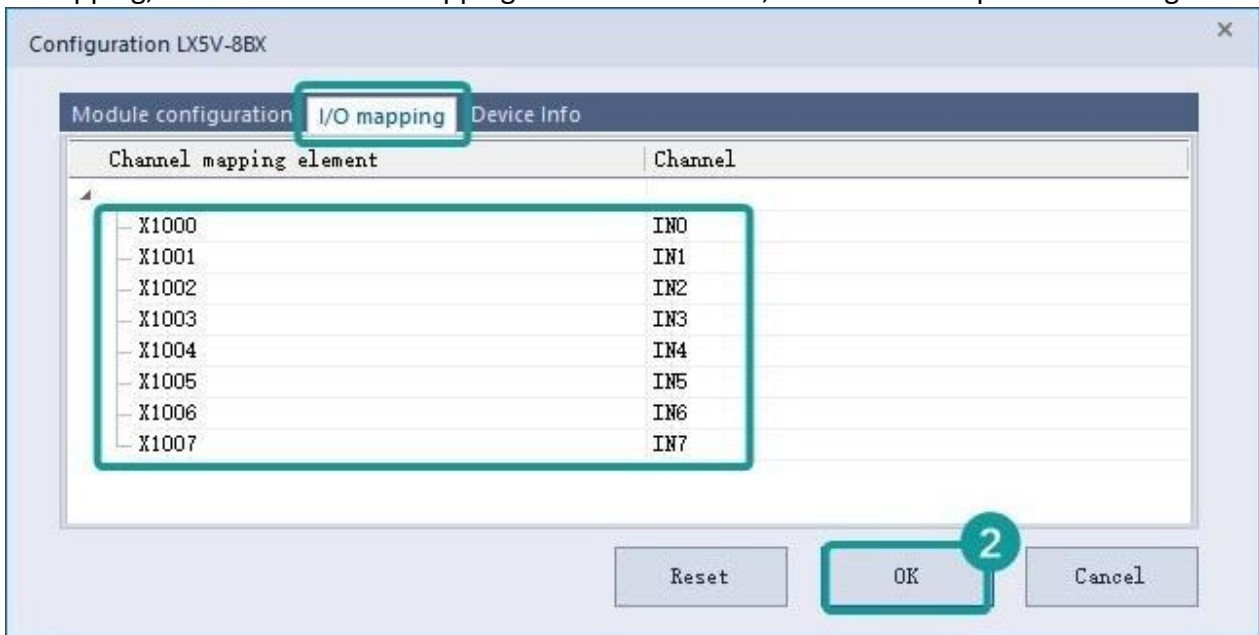Supported lower computer versions:2.051And above, as shown in the following figure:

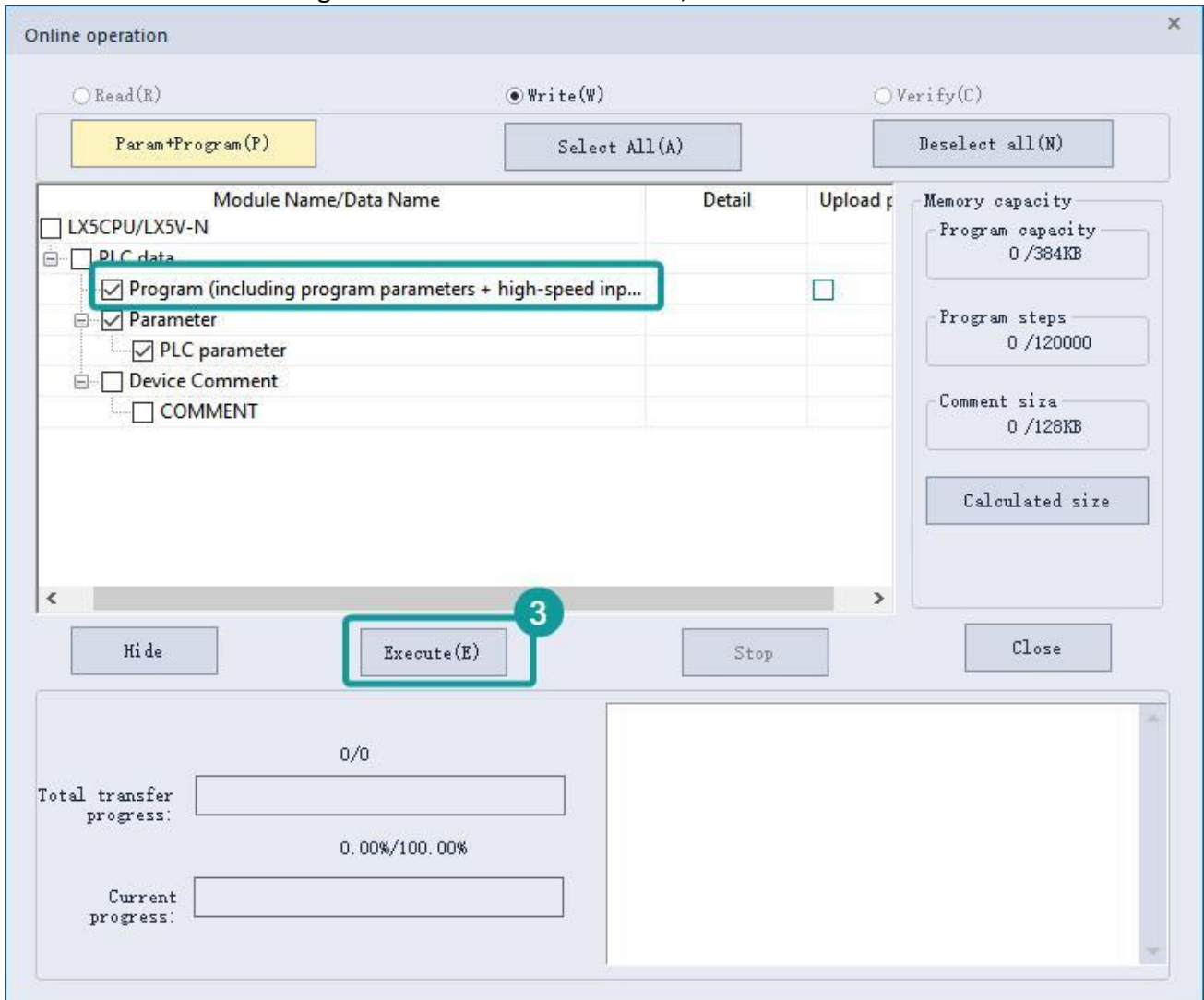**The parameter configuration interface is as follows:**
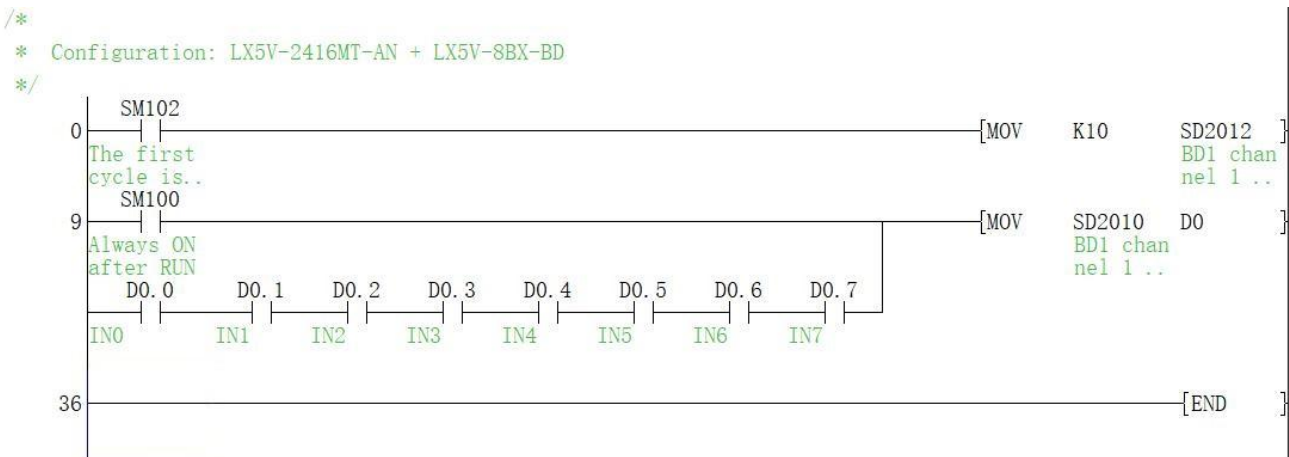
Set the response time and input filtering time.

I/O mapping, INT0 to INT7 fixed mapping to X1000 to X1007, click OK to complete the configuration.

After the BD module configuration is downloaded to PLC, it will take effect after STOP→RUN.
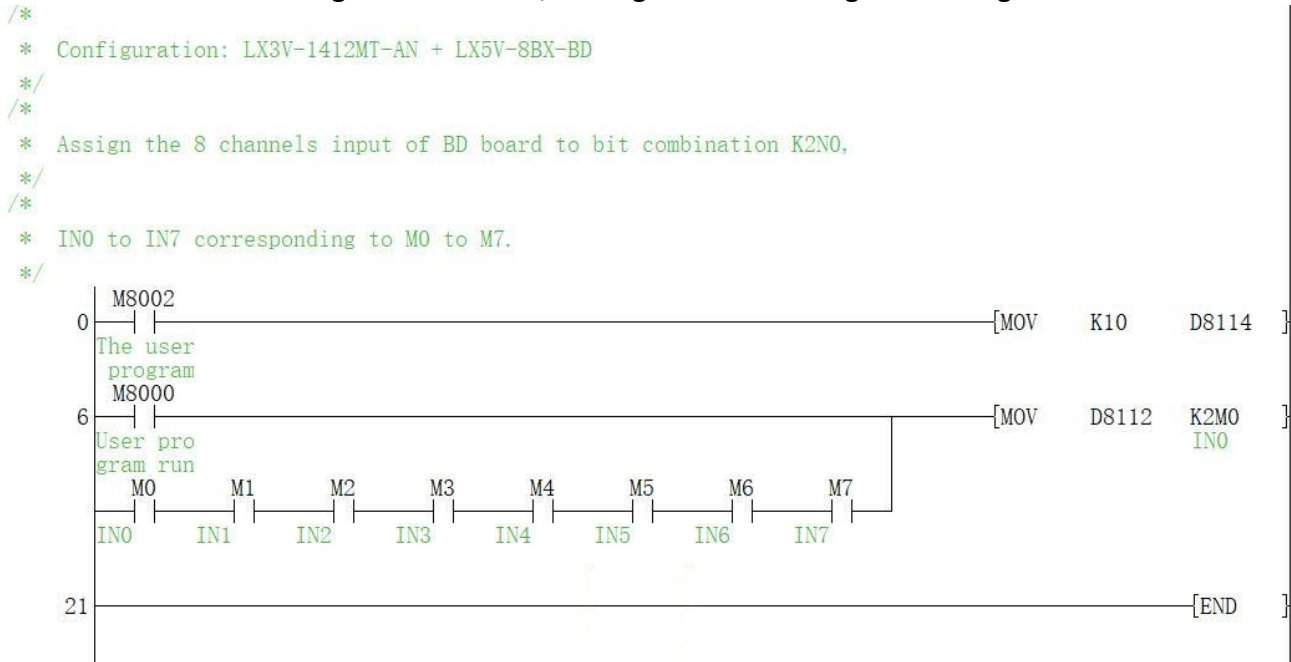

2. Ladder editing

Illustrate:

Assign SD2010 to D0, and when either channel IN0-IN7 is ON, the corresponding bits D0.0 to D0.7 will be set ON.

5.2 Used on LX3V series host

3V does not need to configure BD module, as long as the following ladder diagram.

```
/*
 *  Configuration: LX3V-1412MT-AN + LX5V-8BX-BD
 */
/*
 *  Assign the 8 channels input of BD board to bit combination K2N0,
 */
/*
 *  IN0 to IN7 corresponding to M0 to M7.
 */
```


Illustrate:

Assign the lower byte of D8112 to the bit combination K2M0, and when either channel IN0-IN7 is ON, the corresponding M0 to M7 will be set ON.

5.3 BD monitoring interface and buffer memory

Open the module monitoring interface, select BD module, select online mode, and select LX5V-8BX in the BD module list on the right side to monitor BD module online.

Buffer memory

BFM address	Power -off hold	Read/ write	Memory name	Default	Range	Description
0x2002	×	R/W	Filter time	10	0 to 64	Unit: ms
0x2080	×	R	Channel value	0	0 to 0xFF	Display channel input status
0x2082	×	R	Status information	0	-	-
0x2084	×	R	Error code	0	-	-
0x200	×	R	Current maximum	0	0 to 0xFFFF	The maximum length of the
0x202	×	R	Number of	0	0 to 0xFFFF	Number of retransmissions
0x204	×	R	Number of	0	0 to 0xFFFF	Number of retransmissions
0x206	×	R	Received times of	0	0 to 0xFFFF	Received times of sync
0x208	×	R	Sent times of sync	0	0 to 0xFFFF	Sent times of sync frame
0x20A	×	R	Sent times of SDO	0	0 to 0xFFFF	Sent times of SDO
0x20C	×	R	Received times of	0	0 to 0xFFFF	Received times of SDO
0x20E	×	R	Sent times of PDO	0	0 to 0xFFFF	Sent times of PDO
0x210	×	R	Received times of	0	0 to 0xFFFF	Received times of PDO
0x212	√	R/W	Latest error code	0	Only 0 can be	Protocol internal error code,
0x214	×	R	Number of bytes sent	0	0 to 0xFFFFFFFF	Number of bytes sent
0x218	×	R	Number of valid bytes	0	0 to 0xFFFFFFFF	Number of valid bytes sent
0x21C	×	R	Number of bytes	0	0 to 0xFFFFFFFF	Number of bytes received
0x220	×	R	Number of valid bytes	0	0 to 0xFFFFFFFF	Number of valid bytes
0x224	×	R	Communication time	0	0 to 0xFFFFFFFF	Time from power-on to