

# LS XBO-DA02A Programmable Logic Controller Installation Guide

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LS XBO-DA02A Programmable Logic Controller



### **Product Information**

## **Specifications**

• C/N: 10310001188

• Product: Programmable Logic Controller – XGB Analog

• Model: XBO-DA02A

## **Product Usage Instructions**

## Installation

1. Ensure the PLC is powered off before installation.

2. Connect the PLC according to the provided wiring diagram.

## **Programming**

- 1. Use the programming software provided to create your logic program.
- 2. Upload the program to the PLC following the software instructions.

## Operation

- 1. Power on the PLC and monitor the status indicators for any errors.
- 2. Test the inputs and outputs to ensure proper functionality.

## **INTRODUCTION**

• This installation guide provides simple functional information on PLC control. Please read this data sheet and the manuals before using the products.

• Especially read the safety precautions and handle the products properly.

## **Safety Precautions**

Meaning of warning and caution inscription

- WARNING indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury
- CAUTION indicates a potentially hazardous situation that, if not avoided, may result in minor or moderate injury.
- It may also be used to alert against unsafe practices.



- 1. Do not contact the terminals while the power is applied.
- 2. Protect the product from being contaminated by foreign metallic matter.
- 3. Do not manipulate the battery(charge, disassemble, hit, short, soldering).



- 1. Be sure to check the rated voltage and terminal arrangement before wiring.
- 2. When wiring, tighten the screw of terminal block with the specified torque range.
- 3. Do not install flammable things in the surroundings.
- 4. Do not use the PLC in an environment of direct vibration.
- 5. Except for expert service staff, do not disassemble or fix, or modify the product.
- 6. Use the PLC in an environment that meets the general specifications contained in this datasheet.
- 7. Be sure that the external load does not exceed the rating of the output module.
- 8. When disposing of the PLC and battery, treat them as industrial waste.

## **Operating Environment**

To install, observe the following conditions:

No	Item	Specification				Standard
1	Ambient temp.	0 ~ 55°C	_			
2	Storage temp.	-25 ~ 70°C	_			
3	Ambient humidity	5 ~ 95%RH, no	_			
4	Storage humidity	5 ~ 95%RH, non-condensing				_
5	Vibration Resistance	Occasional vibration			_	_
		Frequency	Acceleration	Amplitude	Number	
		5≤f<8.4	_	3.5mm	10 times in	
		8.4≤f≤150	9.8 (1g)	_		
		Continuous vibration			each directi on for	IEC 61131-2
		Frequency	Acceleration	Amplitude	X, Y, Z	
		5≤f<8.4	_	1.75mm		
		8.4≤f≤150	4.9 (0.5g)	_		

# **Applicable Support Software**

For system configuration, the following version is necessary.

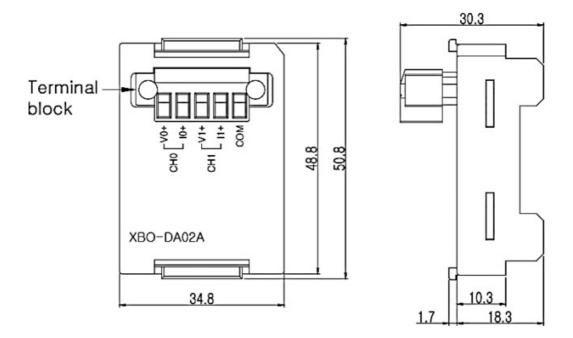
XBC Type: SU(V1.0 or above), E(V1.1 or above)
 XEC Type: SU(V1.0 or above), E(V1.1 or above)

3. XG5000 Software: V4.0 or above

## **Parts Name and Dimension**

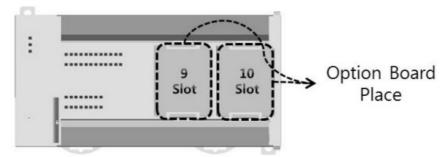
# Parts Name and Dimension (mm)

• This is the front part of the Module. Refer to each name when driving the system. For more information, refer to the user manual.

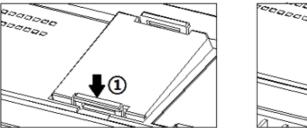


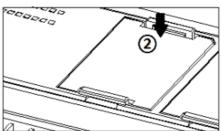
## **Installing/Removing Modules**

• Option Board can be installed in 9 or 10 slot of the Main Unit(Standard/Economic Type) as shown below.



- When installing the Option Board, push the lower part(①) of the Option Board to contact with connector.
- After pushing the lower part(①) completely, push the upper(②) part of the Option Board entirely.





# **Performance Specifications**

Performance specifications are as follows

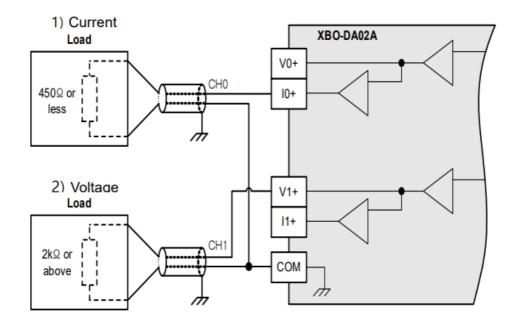
Item			XBO-DA02A		
	Туре		Voltage	Current	
Analog inp ut	P Range		DC 0~10V	DC 4~20mA DC 0~20mA	
	Туре		12-bit binary data		
	t Range	Unsigned valu	0~4,000		
Digital out		Signed value	-2,000~2,000		
		Precise value	0~1,000 (DC 0 ~ 10V)	400~2,000(DC 4~20mA) 0~2,000(DC 0~20mA)	
		Percentile value	0~1,000		
Max. resolution			1/4,000		
Accuracy			±1.0% or less		

## Wiring

## **Precautions for wiring**

- 1. Don't let the AC power line near to analog option board's external input signal line. With enough distance kept away between, it will be free from surge or inductive noise.
- 2. Cable shall be selected in due consideration of ambient temperature and allowable current. More than AWG22 (0.3) is recommended.
- 3. Don't let the cable come too close to hot device and material or in direct contact with oil for long, which will cause damage or abnormal operation due to short-circuit.
- 4. Check the polarity when wiring the terminal.
- 5. Wiring with a high-voltage line or power line may produce inductive hindrance, causing abnormal operation or defects.
- 6. Enable the channel that you want to use.

## Wiring examples



## Warranty

- The warranty period is 36 months from the date of manufacture.
- The initial diagnosis of faults should be conducted by the user.
- However, upon request, LS ELECTRIC or its representative(s) can undertake this task for a fee.
- If the cause of the fault is found to be the responsibility of LS ELECTRIC, this service will be free of charge.
- Exclusions from warranty
  - 1. Replacement of consumable and life-limited parts (e.g., relays, fuses, capacitors, batteries, LCDs, etc.)
  - 2. Failures or damages caused by improper conditions or handling outside those specified in the user manual
  - 3. Failures caused by external factors unrelated to the product
  - 4. Failures caused by modifications without LS ELECTRIC's consent
  - 5. Use of the product in unintended ways
  - 6. Failures that cannot be predicted/solved by current scientific technology at the time of manufacture
  - 7. Failures due to external factors such as fire, abnormal voltage, or natural disasters
  - 8. Other cases for which LS ELECTRIC is not responsible
- For detailed warranty information, please refer to the user's manual.
- The content of the installation guide is subject to change without notice for product performance improvement.
- LS ELECTRIC Co., Ltd. www.ls-electric.com
- 10310001188 V4.5 (2024.6)
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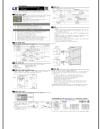
- LS ELECTRIC (Wuxi) Co., Ltd. (Wuxi, China) Tel: 8651068516666
- LS-ELECTRIC Vietnam Co., Ltd. (Hanoi, Vietnam) Tel: 84936314099
- LS ELECTRIC Middle East FZE (Dubai, U.A.E...) Tel: 97148865360
- LS ELECTRIC Europe B.V. (Hoofddorf, Netherlands) Tel: 31206541424
- LS ELECTRIC Japan Co., Ltd. (Tokyo, Japan) Tel: 81362688241
- LS ELECTRIC America Inc. (Chicago, USA) Tel: 18008912941
- Factory: 56, Samseong 4-gil, Mokcheon-eup, Dongnam-gu, Cheonan-si, Chungcheongnam-do, 31226, Korea



## **Frequently Asked Questions**

- Q: What do the error codes signify?
  - A: Error code 055 indicates a communication error. Refer to the manual for troubleshooting steps.
- Q: How do I calibrate the humidity sensor?
  - **A:** For calibrating the humidity sensor, please refer to the specific calibration instructions provided with the device.
- Q: What does the '5f' code represent?
  - **A:** The '5f' code could indicate a system fault. Please contact customer support for further assistance.

#### **Documents / Resources**



LS XBO-DA02A Programmable Logic Controller [pdf] Installation Guide XBO-DA02A, XBO-DA02A Programmable Logic Controller, Programmable Logic Controller, Logic Controller, Controller

## References

- @ Electric | The Largest Consumer Energy & Renewables Platform
- User Manual

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