

LS
XGF-SOEA
Programmable
Logic Controller



LS XGF-SOEA Programmable Logic Controller Installation Guide

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LS XGF-SOEA Programmable Logic Controller



This installation guide provides simple function information of PLC control. Please read carefully this data sheet and manuals before using products. Especially read 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 which, if not avoided, may result in minor or moderate injury. It may also be used to alert against unsafe practices.

WARNING

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

CAUTION

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 the flammable things on surroundings.
4. Do not use the PLC in the environment of direct vibration.
5. Except 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 external load does not exceed the rating of output module.
8. When disposing of PLC and battery, treat it as industrial waste.

Operating Environment

To install, observe the below conditions.

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

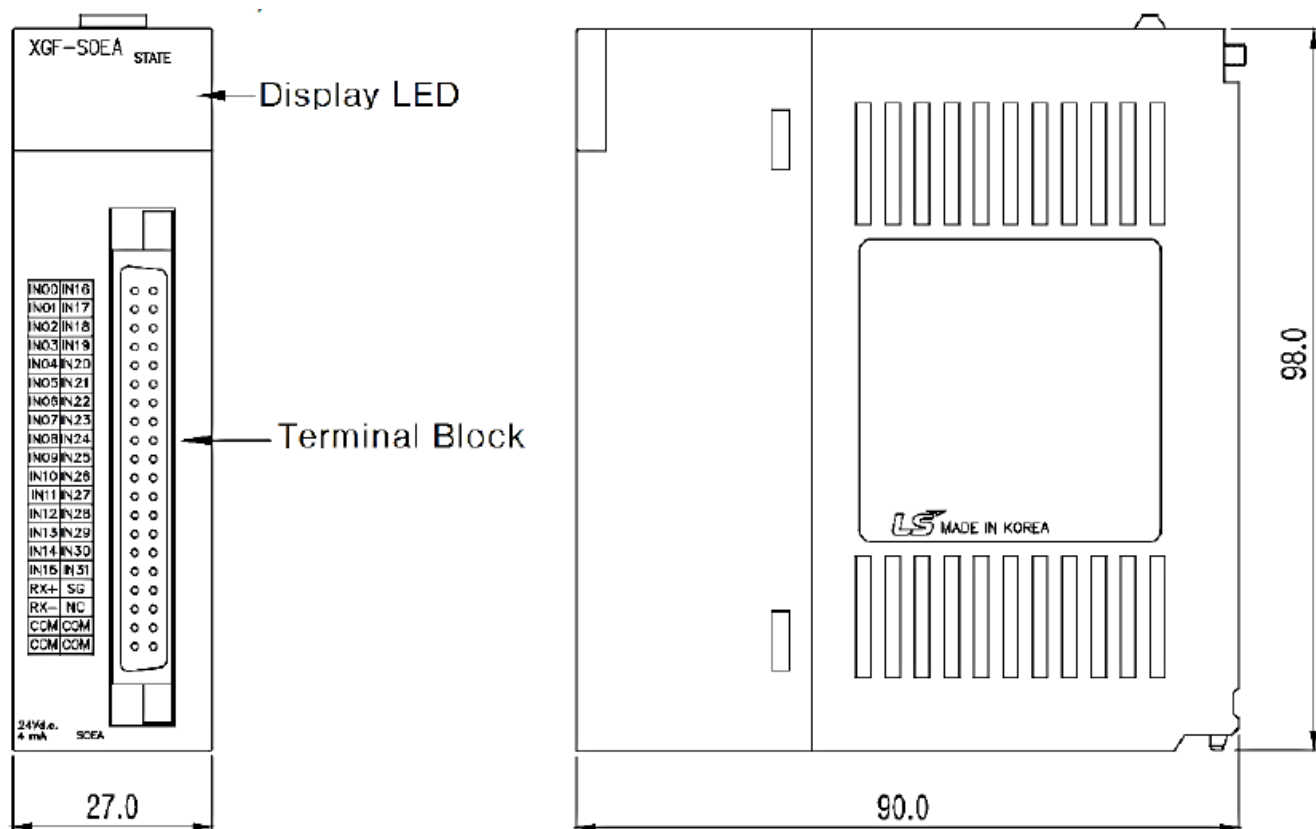
Applicable Support Software

For system configuration, the following version is necessary.

1. XGI CPU: V3.8 or above
2. XGK CPU: V4.2 or above
3. XGR CPU: V2.5 or above
4. XG5000 Software: V3.68 or above

Parts name and Dimension (mm)

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



Installing / Removing Modules

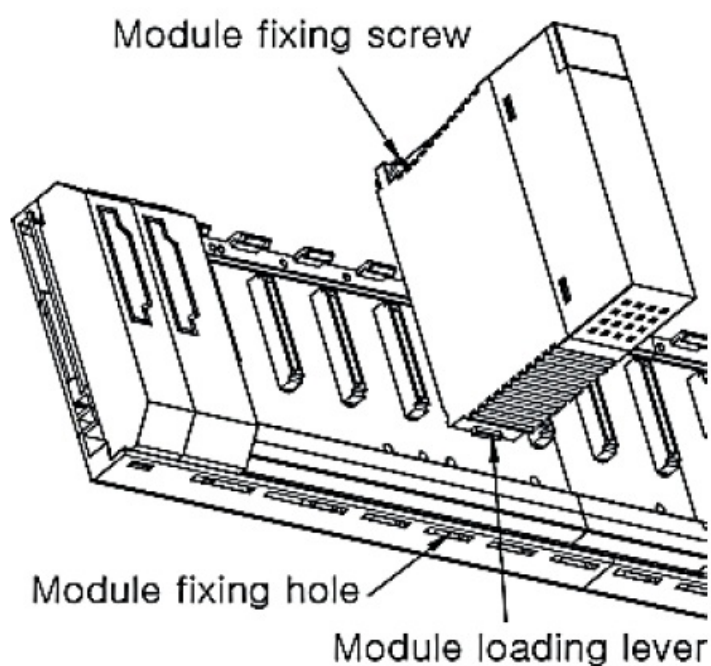
Here describes the method to attach each product to the base or remove it.

Installing module

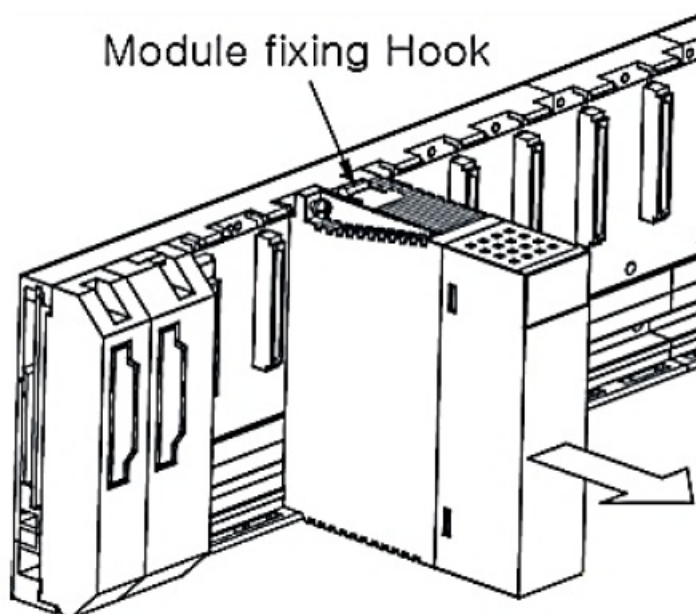
1. Slide the upper part of module to fix to the base, and then fit it to the base by using the module fixed screw.
2. Pull the upper part of module to check if it is installed to the base completely.

Removing module

1. Loosen the fixed screws of the upper part of module from the base.



2. Hold the module by both hands and press the fixed hook of module thoroughly.



3. By pressing the hook, pull the upper part of module from the axis of the lower part of module.

4. By lifting the module upward, remove the fixed projection of module from the fixing hole.

Performance Specifications

Performance specifications are as follows.

Item	Specification
Memory capacity	1Mbit
Event time	Internal time: PLC time External time: External time server time
Resolution(accuracy)	Internal time: 1ms(accuracy: ± 2 ms) External time: 1ms(accuracy: ± 0.5 ms)
Input point	32 points(Sync/source type)
Additional functions	32 points input On/Off state U-device display
Max no. of contacts	512points(16module)

Wiring

Precaution for wiring

1. Do not place AC power line near to the module's external input signal line. It should be farther than minimum 100mm between both lines in order not to be affected by noise and magnetic field.
2. Cable shall be selected in due consideration of ambient temperature and allowable current, whose size is not less than the max. cable standard of AWG22 (0.3).
3. Do not place the cable 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 high-voltage line or power line may produce inductive hindrance causing abnormal operation or defect.
6. Use the cable of AWG24(0.3) above with twisted and shielded when communicating RS-422 by IRIG-B.
7. Determine the cable max. length and node by Timeserver specification of RS-422(IRIG-B).
8. In case the signal ground of Timeserver isn't isolated, use the RS-422 isolator because of the noise. The transit delay of the isolator must be within 100 .
9. Do not use the isolator which has the function with analyzing the data signal and sending it.

Wiring Example

1. The size of I/O device cable is limited to 0.3~2 mm² but it is recommended to select a size(0.3 mm²) to use conveniently
2. Please isolate input signal line from output signal line..
3. I/O signal lines should be wired 100mm and more away from high voltage/high current main circuit cable.
4. Batch shield cable should be used and the PLC side should be grounded unless the main circuit cable and power cable can't be isolated.
5. When applying pipe-wiring, make sure to firmly ground the piping.
6. The output line of DC24V should be isolated from AC110V cable or AC220V cable.

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. 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.

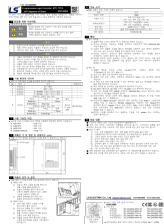
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· LS ELECTRIC Middle East FZE (Dubai, U.A.E.)	Tel: 971-4-886-5360
· LS ELECTRIC Europe B.V. (Hoofddorf, Netherlands)	Tel: 31-20-654-1424
· LS ELECTRIC Japan Co., Ltd. (Tokyo, Japan)	Tel: 81-3-6268-8241
· LS ELECTRIC America Inc. (Chicago, USA)	Tel: 1- 800-891-2941

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Documents / Resources

	<p>LS XGF-SOEA Programmable Logic Controller [pdf] Installation Guide XGF-SOEA Programmable Logic Controller, XGF-SOEA, Programmable Logic Controller, Logic Controller, Controller</p>
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References

- [Electric | The Largest Consumer Energy & Renewables Platform](#)
- [LS ELECTRIC Co., Ltd.](#)
- [User Manual](#)

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