



# LS ELECTRIC XGT Dnet Programmable Logic Controller Installation Guide

[Home](#) » [LS ELECTRIC](#) » LS ELECTRIC XGT Dnet Programmable Logic Controller Installation Guide 

## Contents

- 1 LS ELECTRIC XGT Dnet Programmable Logic Controller
- 2 Product Information
- 3 Product Usage Instructions
- 4 Safety Precautions
- 5 Operating Environment
- 6 Applicable Support Software
- 7 Accessories and Cable Specifications
- 8 Parts Name and Dimension (mm)
- 9 Installing / Removing Modules
- 10 Wiring
- 11 Warranty
- 12 Documents / Resources
  - 12.1 References
- 13 Related Posts



## LS ELECTRIC XGT Dnet Programmable Logic Controller



### Product Information

The product is a Programmable Logic Controller with the model number C/N: 10310000500. It uses XGT Dnet technology and has the XGL-DMEB model number. The PLC can be programmed for various functions and is suitable for industrial automation applications. The product has two input/output terminals and supports a range of

protocols.

The text-extract from the user manual provides additional information about the product:

- **Line 1:** Indicates the name and model of the product.
- **Line 2:** Indicates the input/output configuration of the PLC.
- **Line 3:** Indicates a value of 55 for input/output terminal 1.
- **Line 4:** Indicates a value of -2570 for input/output terminal 2.
- **Line 5:** Indicates a value of 595%RH for input/output terminal 3 and 4.

## Product Usage Instructions

To use the Programmable Logic Controller, follow the below steps:

1. Connect the PLC to the power supply.
2. Connect the input/output devices to the appropriate terminals as per the configuration mentioned in the user manual.
3. Program the PLC using suitable software and programming languages as per the requirements of your application.
4. Test the functionality of the PLC by running the programmed instructions and observing the input/output signals.
5. Make necessary adjustments to the program or hardware connections as per the desired results.

Refer to the user manual for detailed information on programming and troubleshooting. change without notice due to continuous product development and improvement.

This installation guide provides simple function information or PLC control. Please read carefully this data sheet and manuals before using products. Especially read precautions then handle the products properly.

## Safety Precautions

- Meaning of warning and caution label

**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. Be sure there are no foreign metallic matters.
3. Do not manipulate the battery(charge, disassemble, hitting, short, soldering).

### CAUTION

- Be sure to check the rated voltage and terminal arrangement before wiring

- When wiring, tighten the screw of terminal block with the specified torque range
- Do not install the flammable things on surroundings
- Do not use the PLC in the environment of direct vibration
- Except expert service staff, do not disassemble or fix or modify the product
- Use the PLC in an environment that meets the general specifications contained in this datasheet.
- Be sure that external load does not exceed the rating of output module.
- When disposing of PLC and battery, treat it as industrial waste.
- I/O signal or communication line shall be wired at least 100mm away from a high-voltage cable or power line.

## Operating Environment

To install, observe the below conditions.

N o	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		Amplitude		10 times in each direction for X, Y, Z	IEC 61131-2
		5≤f<8.4	—		3.5mm			
		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:** V3.9 or above

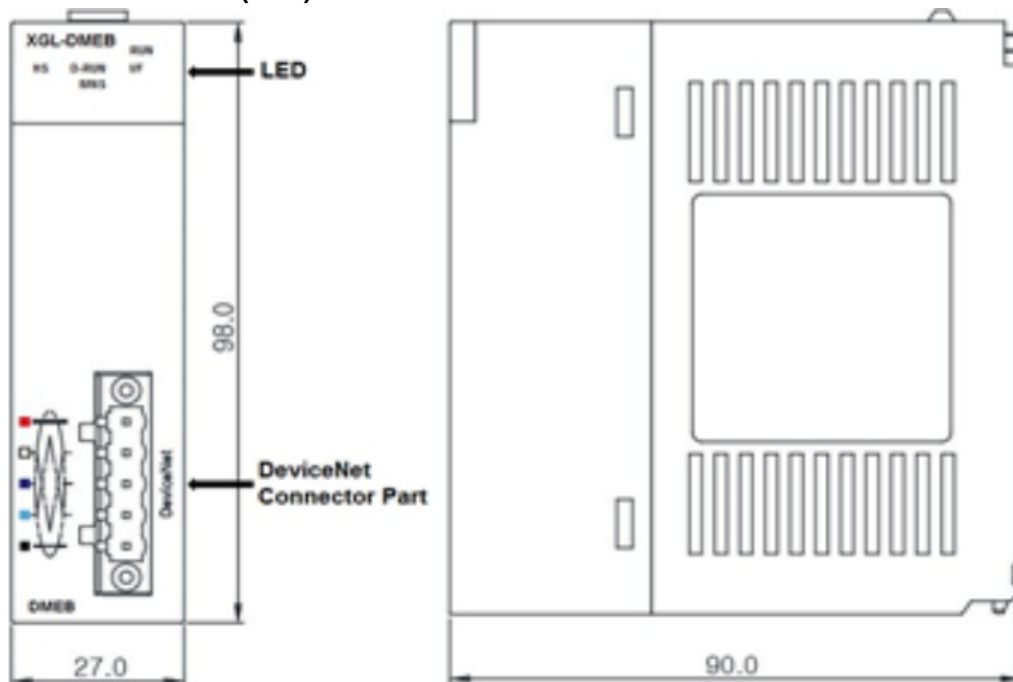
2. **XGK CPU**: V4.5 or above
3. **XGR CPU**: V2.6 or above
4. **XG5000 Software** : V4.11 or above

## Accessories and Cable Specifications

- Check DeviceNet Connector attached in the module
- Check terminal resistance contained in the box
  - 1) Terminal resistance : 121Ω, 1/4W, allowance 1% (2EA)
- When using DeviceNet communication channel, DeviceNet cable shall be used with consideration of communication distance and speed.

Classification	Thick(class1)	Thick(class2)	Thin(class2)	<u>Remark</u>
Type	7897A	3082A	3084A	Maker: Belden
Cable Type	Round			Trunk and Drop line is used concurrently
Impedance(Ω)	120			
Temperature range(°C)	-20~75			
Max. allowable current(A)	8		2.4	
Min. radius of curvature(inch)	4.4	4.6	2.75	
Core wire number	5wires			

## Parts Name and Dimension (mm)

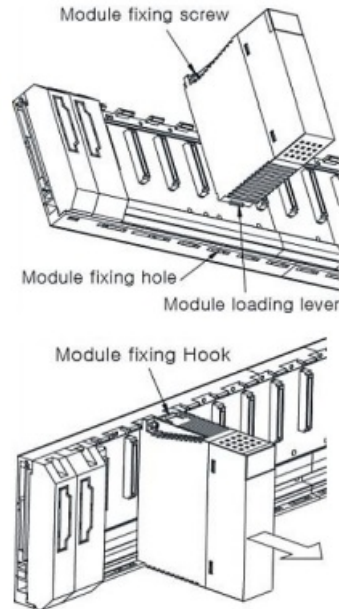


- This is front part of the Module. Refer to each name when operating the system. For more information, refer to user's manual.

## LED details

LED	LED Status	Status	LED Description
RUN	On	Normal	Initialization
	Off	Error	When a fatal error occurs
I/F	Blink	Normal	Interface normal with CPU
	Off	Error	Interface error with CPU
HS	On	Normal	HS Link normal operating state
	Blink	Waiting	During parameter download through the config tool Communicate is stopped
	Off	Error	HS Link is disabled When a fatal error occurs in HS Link
D-RUN	Blink	Comm. Stop	Comm. Stop (Dnet I/F module and slave module)
	On	Normal	Normal operating (Dnet I/F module and slave module)
MNS	Off	Power Off	Dnet I/F module is not online -It has not completed the duplicate MAC ID test -may not be powered
	Green blink	Waiting	Dnet I/F module is operational and online, no connection established -Device has passed the duplicate MAC ID check but has no established connection to other devices
	Green On	Normal	Completed connection setting and normal communication.
	Red blink	Error	In case recoverable error takes place I/O connection are in the time-out state
	Red On	Fatal Error	Dnet I/F module incapable to access to the network -Bus off because of heavy CAN faults. -Duplicate MAC ID detected.

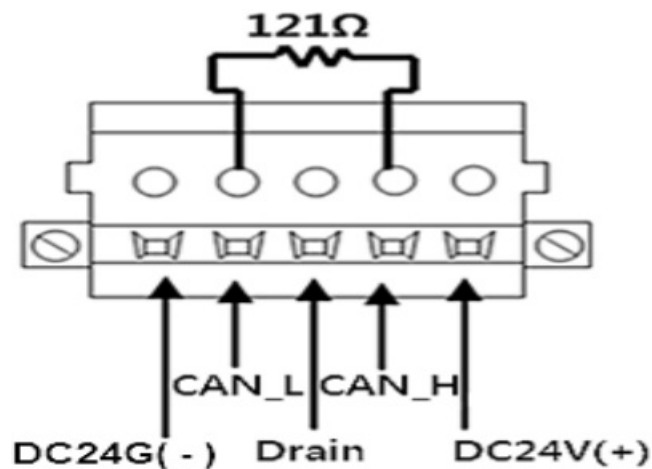
## Installing / Removing Modules



- Here describes the method to attach each module to the base or remove it.
  - Installing module
    - Insert a fixed projection of the lower part Of PLC into the module fixed hole of base
    - Slide the upper part of module to fix to the base, and then fit it to the base by using the module fixed screw.
    - Pull the upper part of module to check if it is installed to the base completely.
  - Removing module
    - Loosen the fixed screws of the upper part of module from the base
    - By pressing the hook, pull the upper part of module from the axis of the lower part of module
    - By lifting the module upward, remove the loading lever of module from the fixing hole

## Wiring

- Wiring for communication
  - 5 pin connector (for external connection)



Signal	Color	Service	5 pin connector
DC 24V (+)	Red	Vcc	
CAN_H	White	Signal	
Drain	Bare	Shield	
CAN_L	Blue	Signal	
DC 24V (-)	Black	GND	

## Warranty


- Warranty period: 18 months after the production date.
- Scope of Warranty: 18-month warranty is available except:
  - The troubles caused by improper condition, environment or treatment except the instructions of LS ELECTRIC.
  - The troubles caused by external devices
  - The troubles caused by remodeling or repairing based on the user's own discretion.
  - The troubles caused by improper usage of the product
  - The troubles caused by the reason which exceeded the expectation from science and technology level when LS ELECTRIC manufactured the product
  - The troubles caused by natural disaster
- Change in specifications Product specifications are subject to change without notice due to continuous product development and improvement.

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**Documents / Resources**

	<p><b><a href="#">LS ELECTRIC XGT Dnet Programmable Logic Controller</a></b> [pdf] Installation Guide XGT Dnet Programmable Logic Controller, XGT Dnet, Programmable Logic Controller, Logic Controller, Controller</p>
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**References**

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