Programmable Logic Controller Installation Guide

XGB CPU   **XBM-DN32H**
(Modular type)   **XBM/XEM-DN/DP32H2**
               XBM/XEM-DN/DP32HP

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.

1   Safety Precautions

■ Meaning of warning and caution inscription

⚠ **WARNING**	WARNING indicates a potentially hazardous situation which, if not avoided, could result in death or serious injury.
⚠ **CAUTION**	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 product.
⑧ When disposing of PLC and battery, treat it as industrial waste.

2   Use of environment

■ To install, observe the below conditions.

No	Item	Specification				Standard
1	Ambient temp.	0 ~ 55℃				-
2	Storage temp.	-25 ~ 70℃				-
3	Ambient humidity	5 ~ 95%RH, non-condensing				-
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 each direction for X, Y, Z	IEC 61131-2
		8.4≤f≤150㎐	9.8㎨(1g)	-		
		Continuous vibration				
		Frequency	Acceleration	Amplitude		
		5≤f<8.4㎐	-	1.75mm		
		8.4≤f≤150㎐	4.9㎨(0.5g)	-		

3   Performance Specifications

The following table shows the general specifications of the XGB.
For more information, please refer to user manual.

■ General Specifications

Items	Specifications
Operation method	Reiterative operation, fixed cycle operation, Interrupt operation, constant period scan
I/O control method	Batch processing by simultaneous scan(Refresh method), Directed by program instruction
Processing speed (Basic instruction)	XBM-H type: 83ns/step, XBM/XEM-H2/HP type: 40ns/step
Program memory capacity(MK)	H type: 20Kstep, H2/HP Type: 64Ksteps
Program memory capacity(IEC)	H2/HP type: 384Kbyte
Maximum expansion stages	Main + Expansion 7slot (Communication: max 2slot, High speed I/F: max 2slot)
Operation mode	RUN, STOP, DEBUG
Self-diagnosis function	Delay of operation, abnormal memory, abnormal I/O
Program port	USB(1Ch)
Back-up method	Setting latch area at basic parameter
RTC	183 days (25℃), power off after charging(3.0V)
Built-in function	Cnet(RS-232,RS-485), Enet, PID, High-speed counter, Positioning [XBM-H: 2axis, APM] [XBM/XEM-H2: 2axis, XPM] [XBM/XEM-HP: 6axis, XPM]

4   Applicable Version

■ For system configuration, the following version is necessary.
1) XG5000 Software
- XBM-DN32H/H2/HP: V4.22 or above
- XEM-DN32H2/HP: V4.26 or above
2) O/S
- XBM-H type: O/S less than V2.0
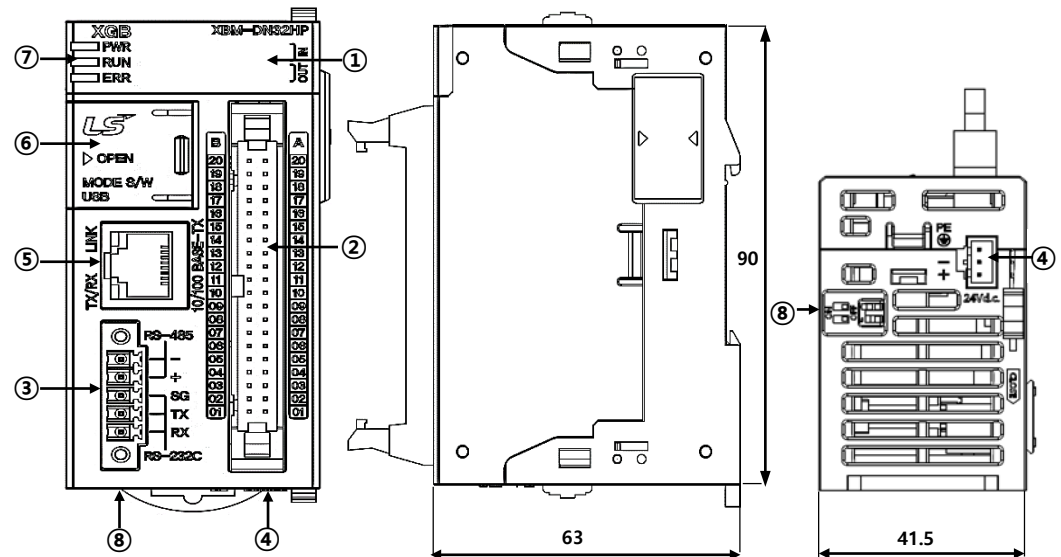- XBM-H2/HP type: O/S V2.0 or above
- XEM-H2/HP type: O/S V2.1 or above

5   Accessory

■ Check the component in package.
1) XGB-POWER(3P)   : Power cable for connecting 24V
■ Check the accessory. Purchase it, if needed,
1) USB-301A   : USB connect (download) cable
2) C40HH-□□SB-XBI   : Main unit input/output connection
3) XTB-40H(TG7-1H40S)   : Main unit input/output Terminal block

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

6   Parts name and Dimension (mm)

① Input/ Output indicator LED
② Input/ Output connector
③ Built-in RS-232/485 connecting connector
④ Power connector
⑤ Built-in Enet connecting connector
⑥ Mode S/W Cover
⑦ Status indicator LED
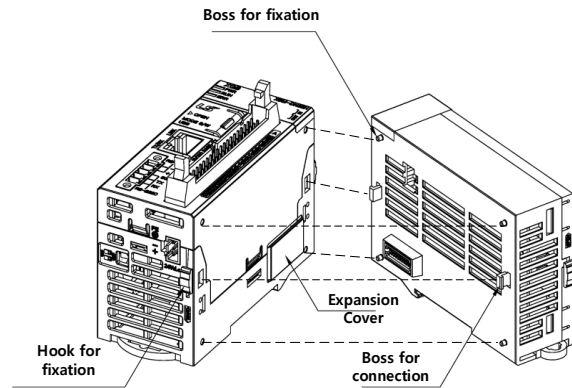⑧ Termination Resistor Switch

7   Mounting & Installation

■ Here describes the method to attach and detach each product.
1) Attachment of product
① Eliminate the Extension cover at the right-bottom side of the product.
② Push the product and connect it in agreement with Hook for fixation of four edges and Hook for connection at the bottom.
③ After connection, push down the Hook for fixation and fix it completely.
2) Detachment of product
① Push up the Hook for connection and then detach the product with two hands. (Do not detach the product by force.)

Boss for fixation
Expansion Cover
Hook for fixation
Boss for connection

8   Power specification

■ Here describes the Power specification of XGB, For more information refer to user manual.

Items		Specification
Power Specification	Rated voltage	DC24V
	Input voltage range	DC20.4~28.8V (-15%, +20%)
	Input current	1A (Typ.550㎃)
	Permitted momentary power failure	Less than 1㎳

9   Warranty

■ Warranty period
18 months after the production date.
■ Scope of Warranty
18-month warranty is available except:
1) The troubles caused by improper condition, environment or treatment except the instructions of LS ELECTRIC.
2) The troubles caused by external devices
3) The troubles caused by remodeling or repairing based on the user's own discretion.
4) The troubles caused by improper usage of the product
5) The troubles caused by the reason which exceeded the expectation from science and technology level when LS ELECTRIC manufactured the product
6) 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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