



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 module.
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		10 times in each direction for X, Y, Z	IEC 61131-2	
		Frequency	Acceleration			Amplitude
		5≤f<8.4Hz	-			3.5mm
		8.4≤f≤150Hz	9.8m/s ² (1g)			-
		Continuous vibration				
		Frequency	Acceleration			Amplitude
5≤f<8.4Hz	-	1.75mm				
8.4≤f≤150Hz	4.9m/s ² (0.5g)	-				

3 Applicable Version

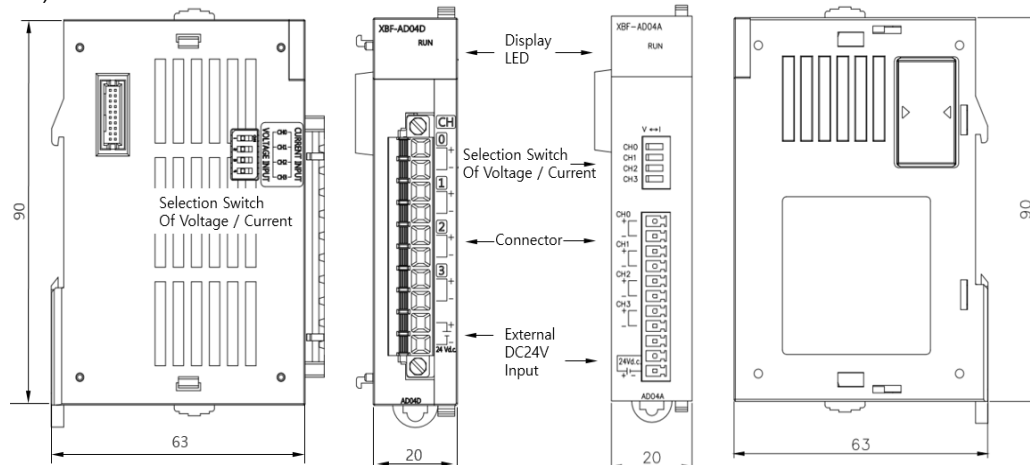
■ For system configuration, the following version is necessary.

- 1) XBC Type : H(V1.9 or above), SU(V1.0 or above), U(V1.0 or above)
- 2) XEC Type : H(V1.3 or above), SU(V1.0 or above), U(V1.0 or above)
- 3) XG5000 Software : V3.3 or above

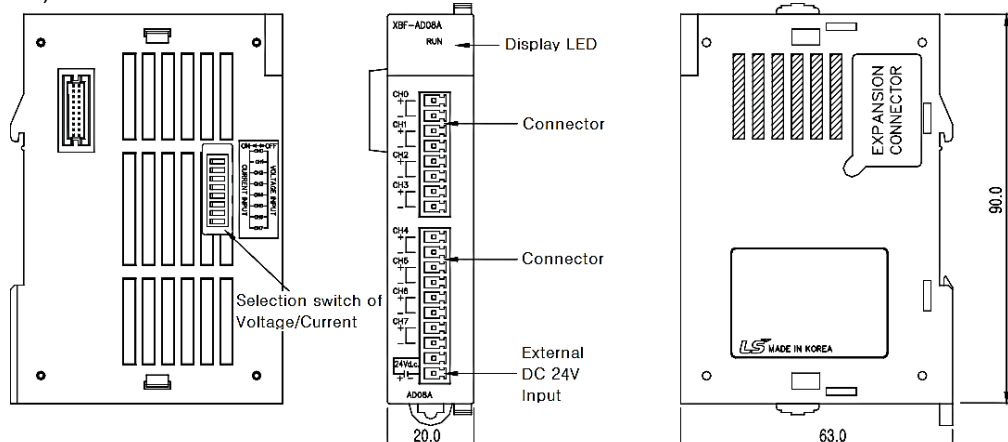
4 Parts Name and Dimension (mm)

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

1) XBF-AD04A / XBF-AD04D

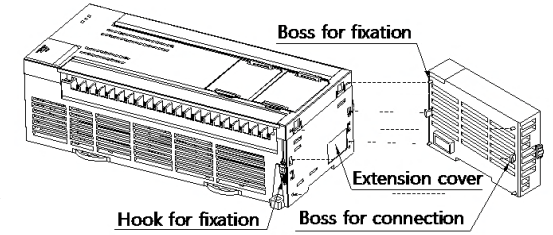


2) XBF-AD08A



■ Here describes the method to attach each product each product.

- 1) Attachment of product
 - ① Eliminate the extension cover at 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 disconnection, and then detach the product with two hands. (Do not detach the product by force)



6 Performance Specifications

■ Performance specifications are as follows.

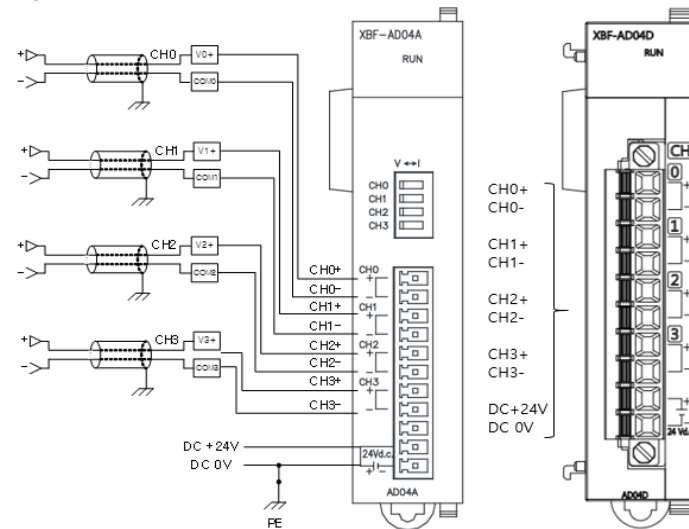
Item	XBF-AD04A(D)		XBF-AD08A		
	Type	Voltage	Current	Voltage	Current
Analog input	Range	DC 0~10V	DC 4~20mA DC 0~20mA	DC 1~5V DC 0~5V DC0~10V	DC 4~20mA DC 0~20mA
Max. resolution		1/4,000		1/4,000	
Accuracy		±0.5% or less		±0.5% or less	
No. of channel		4		8	

7 Wiring

■ Installation of cable

- 1) Don't let AC power line near to analog input module's external input signal line. With an 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 (0.3mm²) is recommended.
- 3) Don't let 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) Enable the channel that you want to use.

■ Wiring examples



Notice

- ① Use the cable of 2-core twisted shield.
- ② AWG 22(0.3mm²) is recommended for the cable standard.
- ③ Current input resistance is 250 Ω (typ.).
- ④ Voltage input resistance is 1 MΩ (min.).

8 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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