



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 °C	-		
2	Storage temp.	-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
		5≤f<8.4Hz	-	3.5mm	
		8.4≤f≤150Hz	9.8m/s ² (1g)	-	IEC 61131-2
		Continuous vibration			
		Frequency	Acceleration	Amplitude	
5≤f<8.4Hz	-	1.75mm			
8.4≤f≤150Hz	4.9m/s ² (0.5g)	-			

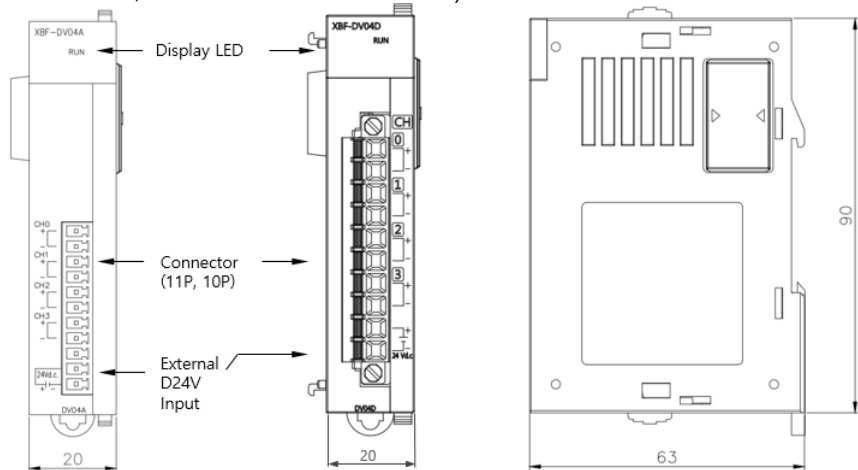
3 Applicable Version

■ For system configuration, the following version is necessary.

- XBC Type H(V1.7 or above), SU(V1.0 or above), U(V1.0 or above)
- XEC Type H(V1.1 or above), SU(V1.0 or above), U(V1.0 or above)
- XG5000 Software V4.0 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. (XBF-DV04A, XBF-DC04A, XBF-DC04B: Connector 11 P, XBF-DV04D, XBF-DC04D: Connector 10P)

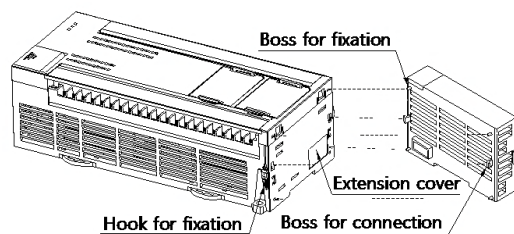


5 Mounting & Installation

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

1) Attachment of product

- Eliminate the extension cover at the product.
- Push the product and connect it in agreement with hook for fixation of four edges and hook for connection at the bottom.
- After connection, push down the hook for fixation and fix it completely.



2) Detachment of product

- 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.

Type	XBF-DV04A(D)	XBF-DC04A(D)	XBF-DC04B
Analog output	Type	Voltage	Current
	Range	DC 0~10V	DC 4~20mA/0~20mA
Digital input	Signed value	0~4,000	0~4,000
	Unsigned value	-2,000~2,000	-2,000~2,000
	Precise value	0~1,000	400~2,000/0~2,000
	Percentile value	0~1,000	0~1,000
Max. resolution	1/4,000		
Accuracy	±0.5% or less		
No. of channel	4		

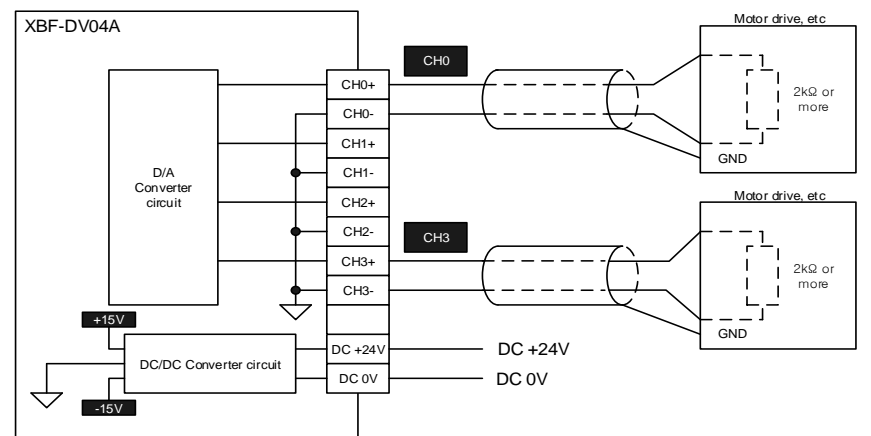
7 Wiring

■ Installation of cable

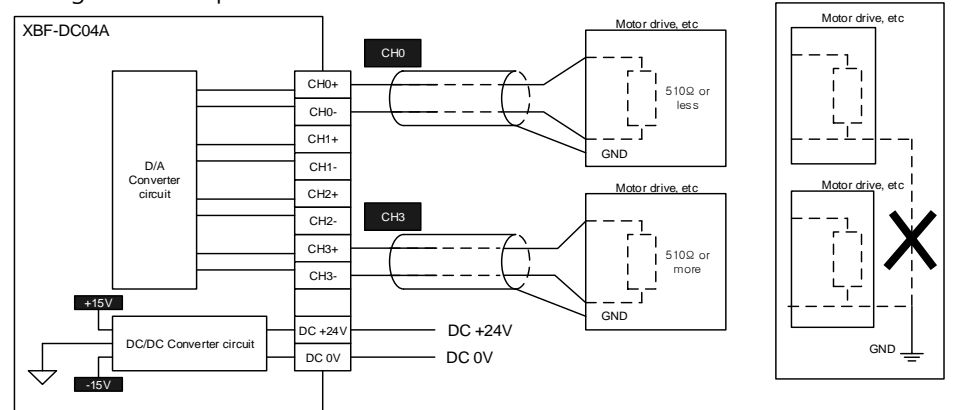
- Don't let AC power line near to analog output module's external output signal line. With an enough distance kept away between, it will be free from surge or inductive noise.
- Cable shall be selected in due consideration of ambient temperature and allowable current. More than AWG22 (0.3mm²) is recommended.
- 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.
- Check the polarity when wiring the terminal.
- Wiring with high-voltage line or power line may produce inductive hindrance causing abnormal operation or defect.
- Enable the channel that you want to use.

■ Wiring examples

1) Analog voltage output module



2) Analog current output module



Notice

- Current output module cannot be connected with device, which is connected with same common line. Normal output cannot come out. Notice1)
- Use the cable of 2-core twisted shield.
- AWG 22(0.3mm²) is recommended for the cable standard

8 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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