



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 Operating 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)	-	
		Continuous vibration		-	IEC 61131-2
		Frequency	Acceleration	Amplitude	
5≤f<8.4Hz	-	1.75mm			
		8.4≤f≤150Hz	4.9m/s ² (0.5g)		

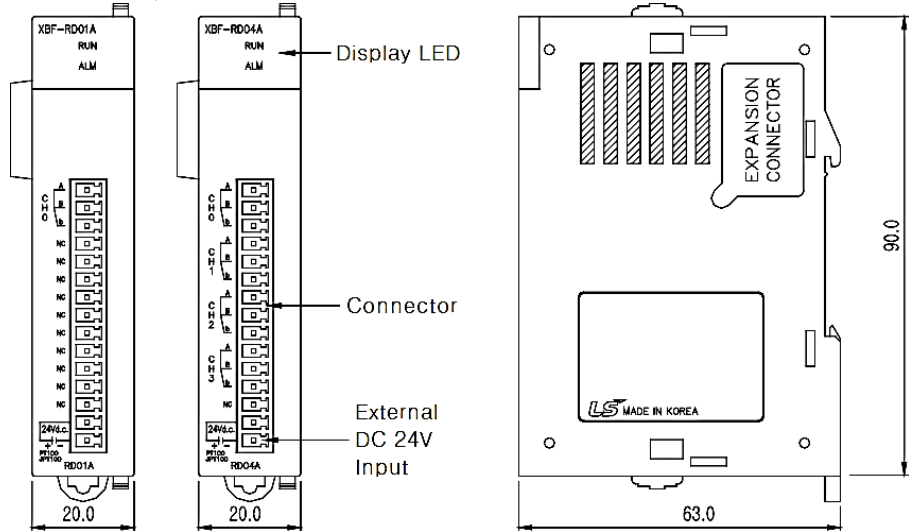
3 Applicable Support Software

■ For system configuration, the following version is necessary.

- 1) XBC Type : H(V1.7 or above), SU(V1.0 or above), U(V1.0 or above)
- 2) XEC Type : H(V1.1 or above), SU(V1.0 or above), U(V1.0 or above)
- 3) XG5000 Software : V4.0 or above

4 Parts Name and Dimension (mm)

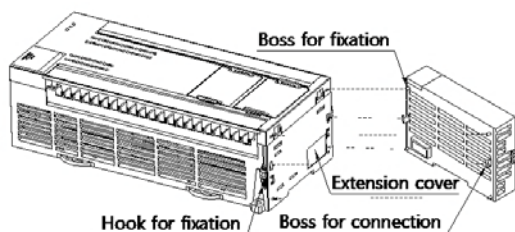
■ This is front part of the Module. Refer to each name when driving the system. For more information, refer to user manual.



5 Installing / Removing Modules

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

- 1) Installing module
 - 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) Removing module
 - 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-RD04A	XBF-RD01A
No. of input channel	4	1
Temperature input range	PT100	-200~600°C
	JPT100	-200~600°C
Digital output	PT100	-2,000~6,000
	JPT100	-2000~6,000
	Scaling display	0~4,000
Accuracy	±0.3% or less (When ambient temperature 25°C)	
	±0.5% or less (When ambient temperature 0 ~ 55°C)	

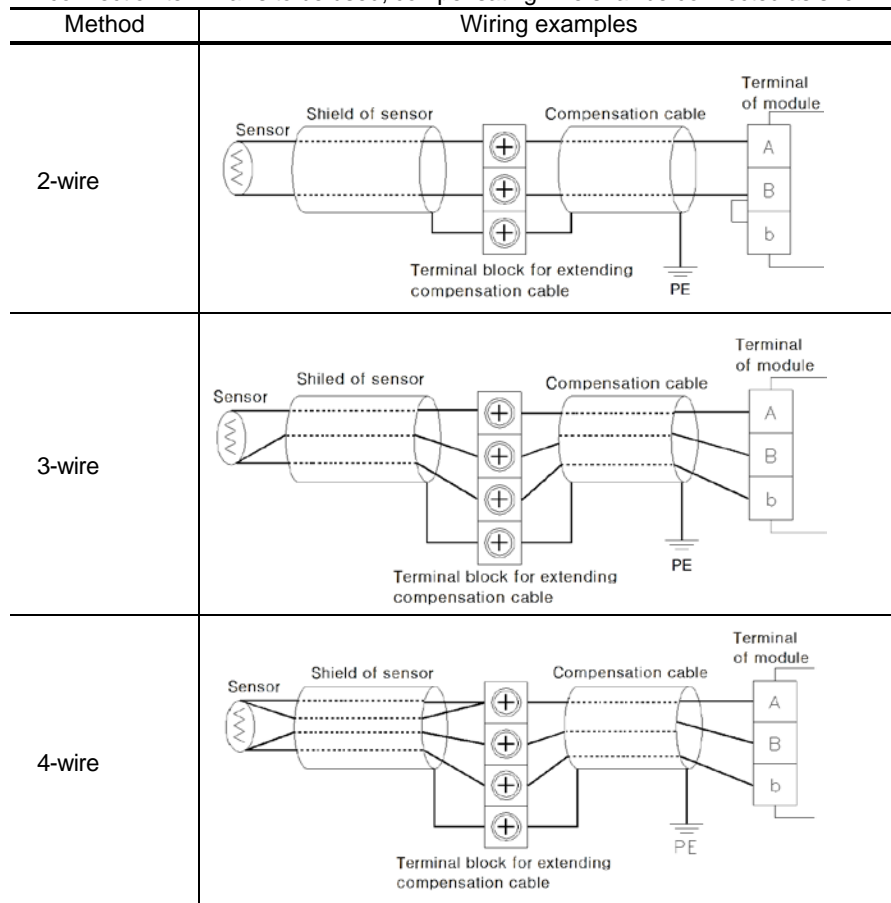
7 Wiring

■ Precaution for wiring

- 1) Don't let AC power line near to RTD 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.

■ Wiring examples

- 1) Types of sensor connecting methods are available (2, 3 and 4-wire)
- 2) Used an identical type of wire (thickness, length, etc) for each 3 wire when extended lead wire is used
- 3) The resistance of each conductor is to be less than 10Ω. (If larger than this, it will cause an error.)
- 4) Length of wire is to be as short as possible and it is recommended to connect the wire directly to the terminal block of XBF-RD04A without connection terminal unit. If a connection terminal is to be used, compensating wire shall be connected as shown below



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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