



SIO XEL-BSSRT Ethernet IO Adapter Installation Guide

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C/N: 10310001663
Programmable Logic Controller
Smart I/O
Installation Guide
XEL-BSSRT/F/H



10310001663



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.

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Safety Precautions

■ Meaning of warning and caution label

 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 a 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

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 installation guide.
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.
9. I/O signal or communication line shall be wired at least 100mm away from a highvoltage cable or power line.

Operating 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			—	IEC 61131-2
		Frequency	Acceleration	Amplitude	Number	
		5≤f<8.4	—	3.5mm	10 times in each direction for X, Y, Z	
		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)	—		

Applicable Support Software

■ For system configuration, the following version is necessary.

1. XG5000 Software: V4.30 or above

Performance Specifications

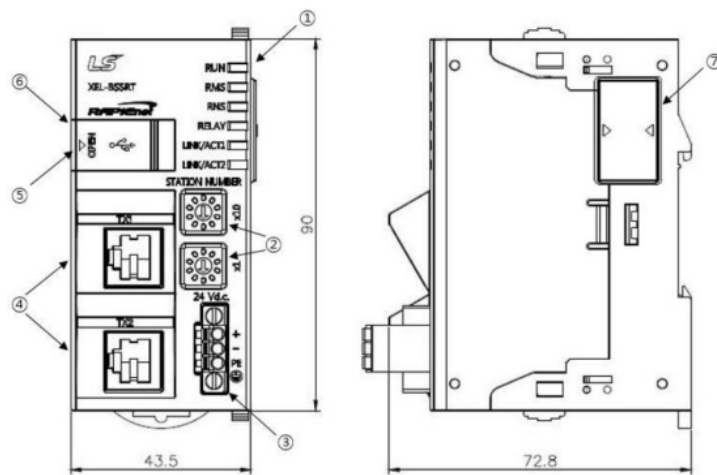
■ For more information, please refer to user manual.

Item	Specification
Communication protocol	RAPIDnet, EtherNet/IP, Modbus-TCP, BOOTP, DHCP
Transmission speed	100/1000Mbps
Communication cable	Electric: S-FTP over CAT5e Optical: Multi-mode/Single-mode fiber optic cable(MMF/SMF)
Maximum expansion stages	8 slot
Output current	3.0A*1)
Internal current consumption	BSSRT: 710 , BSSRF: 750 , BSSRH: 730

*1) Be careful that the sum of the current consumption does not exceed the output current.

Parts name and Dimension (mm)

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



■ Parts name and function

No.	Name	Description
①	Status LED	RAPIEnet/IP Adapter operation status LED, Network communication status LED
②	Rotary Switch	Node Address switch
③	Power connector	DC24V power input connector
④	Media connector	Media connector (electric, optical)
⑤	USB connector	USB connector to connect with XG5000
⑥	USB protection cover	Protection cover for USB connector
⑦	Expansion cover	Protection cover for expansion connector

■ LED details

LED	Status	Description
RUN	Off	Power Off
	Green On	Master module is RUN
	Red On	Master module is STOP
	Green Blink	Waiting for service
RMS	Green On	Normal
	Green Blink	Devices setting is not complete
	Red On	Non-restorable error occurs
	Red Blink	Invalid setting, Restorable error occurs, Parameter errors, Initialization errors, Different speeds or duplexes between ports
RNS	Green On	At least one connection
	Green Blink	Device is not connected
	Red On	Duplicated IP address/station number is detected
	Red Blink	Time-out occurs with one or more devices Frame error or heartbeat error occurs
RELAY	Off	Relay Off
	Green On	Relay On
LINK/ACT1 LINK/ACT2	Off	Link=No, Activity=NA
	Green On	1G Link=Yes, Activity=No
	Green Blink	1G Link=Yes, Activity=Yes
	Yellow On	10/100M Link=Yes, Activity=No
	Yellow Blink	10/100M Link=Yes, Activity=Yes

Installing / Removing Modules

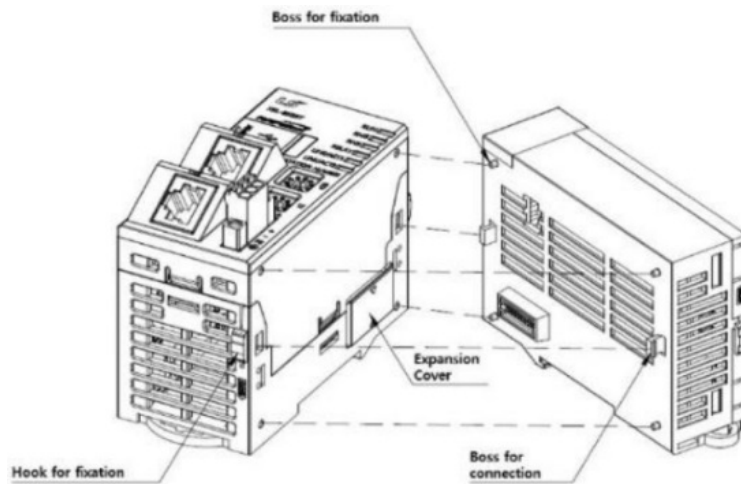
■ Here describes the method to attach each module to the base or remove it.

1. Installing module

- ① When extension input/output module is installed of adapter module up.
- ② Push the product and connect it agreement with hook for fixation of four edges and hook for connection
- ③ After connection, get down the hook for fixation and fix it completely

2. Removing module

- ① Push up the hook for disconnection.
- ② Detach the product with two hands. (Don't force it.)

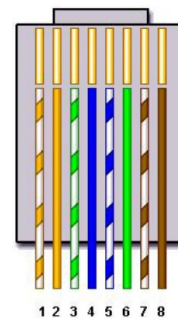


Wiring

■ Wiring for Communication

1. 100/1000BASE-TX's max. extended length between nodes is 100m.
2. This module provides Auto Cross Over function so the user can use both cross and straight cable.

Pin No.	Sign	Cable wiring	
		Straight cable	Cross cable
1	TD+	1 — 1	1 — 3
2	TD-	2 — 2	2 — 6
3	RD+	3 — 3	3 — 1
4	TRD2+	4 — 4	4 — 7
5	TRD2-	5 — 5	5 — 8
6	RD-	6 — 6	6 — 2
7	TRD3+	7 — 7	7 — 4
8	TRD3-	8 — 8	8 — 5



1. White orange
2. Orange
3. White green
4. Blue
5. White blue
6. Green
7. White brown
8. Brown

Warranty

- The warranty period is 36 months from the date of manufacture.
- The initial diagnosis of faults should be conducted by the user. However, upon request, LS ELECTRIC or its representative(s) can undertake this task for a fee. If the cause of the fault is found to be the responsibility of LS ELECTRIC, this service will be free of charge.
- Exclusions from warranty

1. Replacement of consumable and life-limited parts (e.g. relays, fuses, capacitors, batteries, LCDs, etc.)
2. Failures or damages caused by improper conditions or handling outside those specified in the user manual
3. Failures caused by external factors unrelated to the product
4. Failures caused by modifications without LS ELECTRIC's consent
5. Use of the product in unintended ways

6. Failures that cannot be predicted/solved by current scientific technology at the time of manufacture
7. Failures due to external factors such as fire, abnormal voltage, or natural disasters
8. Other cases for which LS ELECTRIC is not responsible

■ For detailed warranty information, please refer to the user's manual.

■ The content of the installation guide is subject to change without notice for product performance improvement.

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Documents / Resources

	<p>SIO XEL-BSSRT Ethernet IO Adapter [pdf] Installation Guide XEL-BSSRT, XEL-BSSRF, XEL-BSSRH, XEL-BSSRT Ethernet IO Adapter, XEL-BSSRT, Ethernet IO Adapter, IO Adapter, Adapter</p>
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References

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

- [User Manual](#)

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