

savic-net™ **FX** Light

SCSL (System Core Server Light)

Model BCY44103M

General

SCSL (System Core Server Light) is a controller that integrates DDC (direct digital controller) and RS (remote station), such as PARAMATRIX™-III and Inflex™ series controllers, into BMS (building management system) **savic-net™ FX Light**.

SCSL is also a B-BC (BACnet® building controller) and thus interoperable with other manufacturers' (third-party) devices.

SCSL saves the data, collected by DDC every minute, for 48 hours. (Note that alarm data is excluded.) Regarding ON/OFF data points and status data points, equipment runtime and ON/OFF count are recorded and saved in SCSL.

Direct input terminals (fire DI, private generation DI, power feeding information DI) are provided on SCSL. SCSL, in case of power failure, is reliable to receive and save the data, and the BMS therefore can be recovered.

SCSL conforms to all the applicable standards of CE Marking (Class A).



Specifications

Item	Specification
CPU	32-bit CPU
Main storage capacity	128MB SDRAM 128MB CompactFlash® memory
Max. data points	500 points
Host system communication	BACnet® IP (Ethernet: 10BASE-T/100BASE-TX), 1 channel
Remote units communication	NC-bus (JIS IPEV-S cable (0.9 mm × 1 pole), 4800 bps) Modbus TCP (Ethernet) To communicate with Modbus RTU over RS-485, media converter is required. CPL RS-485 Media converter is required.
Connectable lines	4 lines connectable
Connectable remote units	100 remote units connectable
Time backup	72 hours
Rated input voltage	100 V AC to 240 V AC
Allowable voltage range	90 V AC to 264 V AC
Allowable ambient condition	5 °C 40 °C (in operation) / 10 %RH to 85 %RH (non-condensing)
Dimensions (mm)	Model BCY44103M000/44103M006: 100 (W) × 106 (D) × 140 (H) Model BCY44103M001: 130 (W) × 106 (D) × 140 (H)
Weight	Model BCY44103M000/44103M006: 1.0 kg Model BCY44103M001: 1.1 kg
Grounding condition	100 Ω or lower ground resistance

Note:

* JIS: Japanese Industrial Standards



Model Numbers

Model number				Description
BCY44103				SCSL base model number
	M			100 V AC to 240 V AC power
		0	0	Fixed
			0	NC-bus model:4 NC-bus lines
			1	Redundant NC-bus model:4 NC-bus lines
			6	NC-bus/Modbus/CPL model: 4 lines
			0	DIN rail mount type

Note:

* SCSL (or SCS) is always bundled with MISL (*savic-net FX Light System Server* package). When ordering *savic-net FX Light System Server* package (SCSL/SCS and MISL), order number is required.

Order Number of SCSL (or SCS) with MISL

Order number				Description
83167449				<i>savic-net FX Light System Server</i> package (MISL and SCSL/SCS)
	-			—
		0		MISL with SCSL for NC-bus: 4 NC-bus lines
		1		MISL with SCSL for redundant NC-bus: 4 NC-bus lines
		2		MISL with SCSL for NC-bus/Modbus/CPL: 4 lines
		5		MISL with SCS for NC-bus: 4 NC-bus lines
		6		MISL with SCS for redundant NC-bus: 4 NC-bus lines
		7		MISL with SCS for NC-bus/Modbus/CPL: 4 lines
			0	English version
			1	Chinese simplified version
			2	Chinese traditional version
			3	Korean version
			1	100 V AC power, DIN rail mount type
			3	200 V AC to 240 V AC power, DIN rail mount type




Safety Instructions

Please read instructions carefully and use the product as specified in this manual. Be sure to keep this manual near by for ready reference.

Usage Restrictions

This product is targeted for general air conditioning. Do not use this product in a situation where human life may be affected. If this product is used in a clean room or a place where reliability or control accuracy is particularly required, please contact Yamatake's sales representative. Yamatake Corporation will not bear any responsibility for the results produced by the operators.

 CAUTION

-  • Installation and wiring must be performed by qualified personnel in accordance with all applicable safety standards.
-  • This product must be installed under the operating conditions (power, temperature, humidity, vibration, shock, installation position, atmospheric condition, etc) specified in this manual to prevent product damages.
-  • This product must be operated within its rated operating ranges specified in this manual. Failure to comply will cause product damages.

Trademark information:

Infilex, Neopanel, PARAMATRIX, and *savic-net* are trademarks or registered trademarks of Yamatake Corporation in Japan or in other countries.

BACnet is a registered trademark of American Society of Heating, Refrigerating and Air-Conditioning Engineers (ASHRAE).

Ethernet is a U.S. registered trademark of Xerox Corporation.

System Configurations

savic-net FX Light BMS configuration

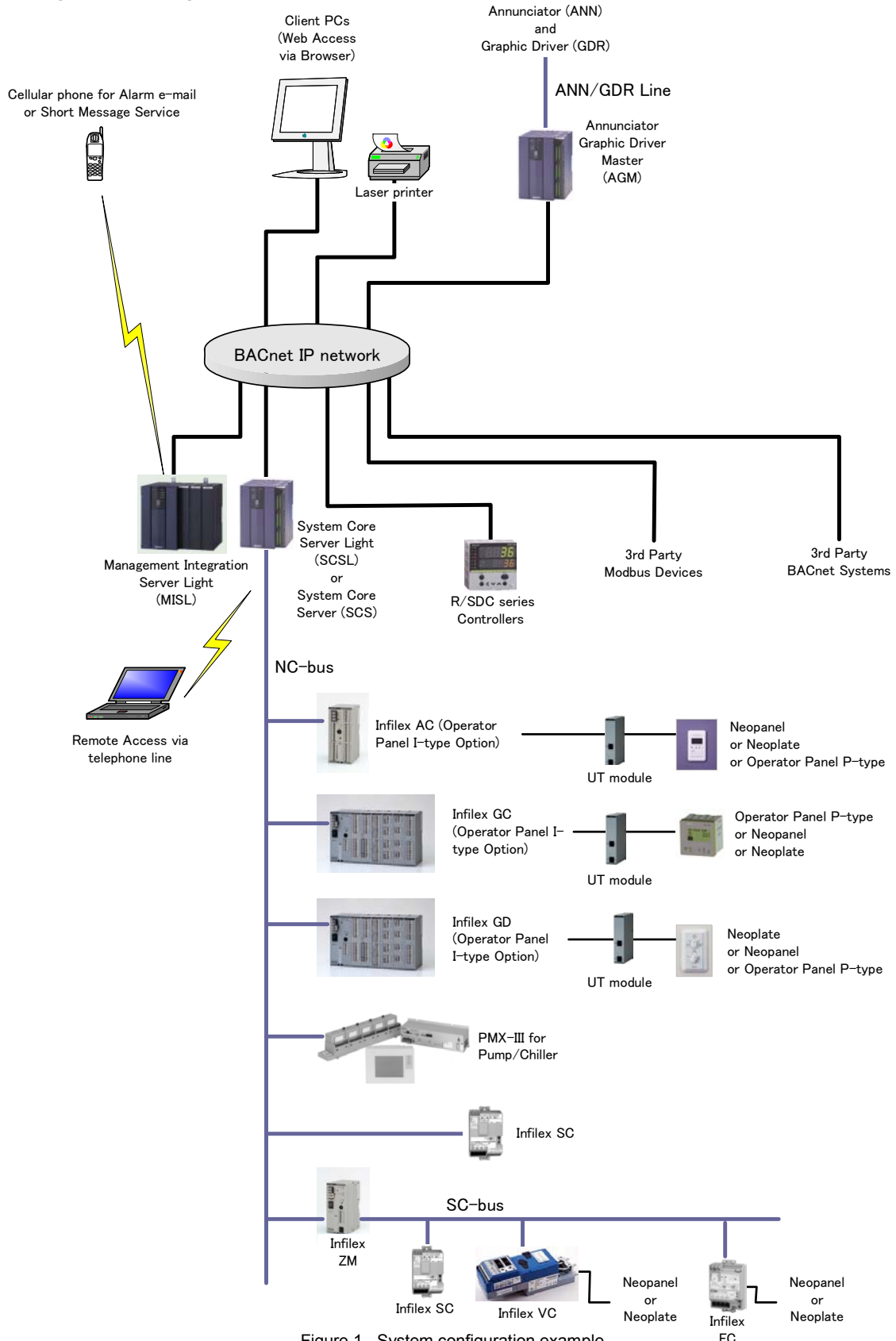


Figure 1. System configuration example

Notes:

- * Yamatake's Model R/SDC series controllers communicate with CPL (Controller Peripheral Link, developed by Yamatake) over RS-485. Media converter therefore is required to connect to SCSL/SCS (BACnet IP over Ethernet).
- * Though SCSL/SCS directly communicates with Modbus TCP over Ethernet, SCSL/SCS cannot directly communicate with Modbus RTU over RS-485. Media converter therefore is required to connect to Modbus RTU devices.

Items shown in Fig. 1 indicate the devices and protocols configuring the system. See Table 1 for the descriptions.

Table 1. Devices and protocols configuring *savic-net FX Light* system

Item	Description
AGM	Yamatake's Annunciator/Graphic Driver Master
ANN	Annunciator
BACnet®	Data communication protocol for Building Automation and Control Networks (developed by ASHRAE)
GDR	Graphic Driver
Infilex™ AC	Yamatake's AHU (air handling unit) controller
Infilex™ FC	Yamatake's FCU (fan coil unit) controller
Infilex™ GC	Yamatake's Multipurpose controller
Infilex™ GD	Yamatake's Multipurpose data gathering panel
Infilex™ SC	Yamatake's AHU (air handling unit) controller
Infilex™ VC	Yamatake's VAV (variable air volume) controller with damper actuator
Infilex™ ZM	Yamatake's Zone Manager
IP	Internet Protocol
MISL	Yamatake's Management Integration Server Light
Modbus	Serial communication protocol for PLC (developed by Modicon)
Modbus RTU	Modbus protocol over RS-485 (RTU: Remote Terminal Unit)
Modbus TCP	Modbus protocol over Ethernet (TCP: Transmission Control Protocol)
NC-bus	Yamatake's New Controller Bus protocol
Neopanel™	Yamatake's digital user terminal
Neoplate™	Yamatake's analog user terminal
Operator Panel (I-type)	Yamatake's Integral type Operator Panel
Operator Panel (P-type)	Yamatake's Panel-mount type Operator Panel
PMX-III	Yamatake's PARAMATRIX™-III DDC controller
R series controllers	Yamatake's single loop controllers
SDC series controllers	Yamatake's single loop controllers
SC-bus	Yamatake's Sub Controller Bus protocol
SCS	Yamatake's System Core Server
SCSL	Yamatake's System Core Server Light
UT module	Yamatake's user terminal interface

Dimensions

Model BCY44103M000 / BCY44100M006

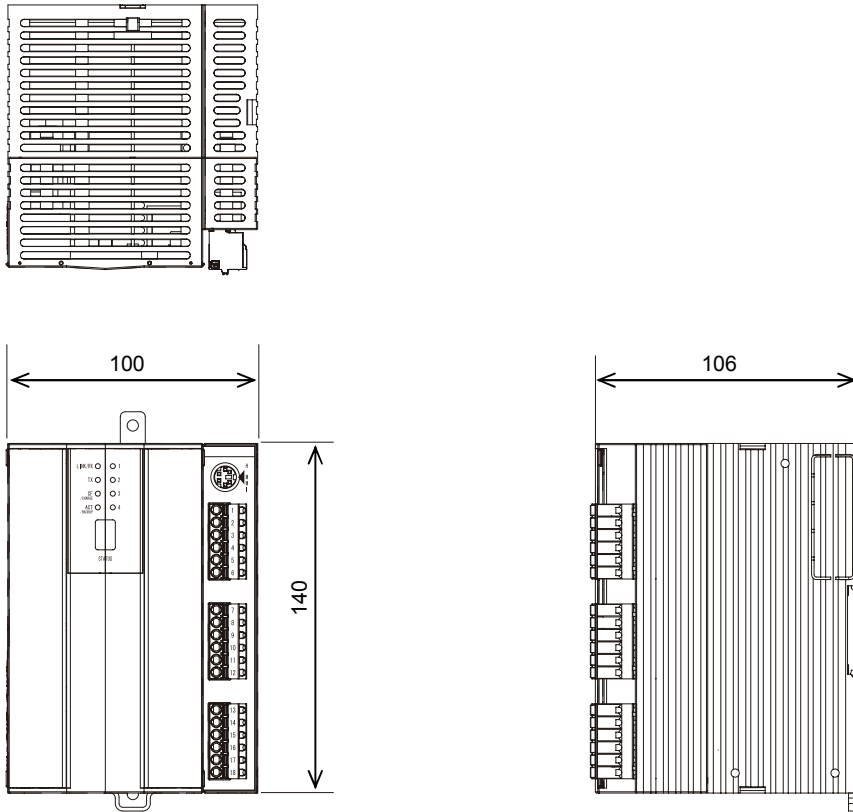


Figure 2. Dimensions (mm): Model BCY44103M000 / BCY44103M006

Model BCY44103M001 (Redundant NC-bus model)

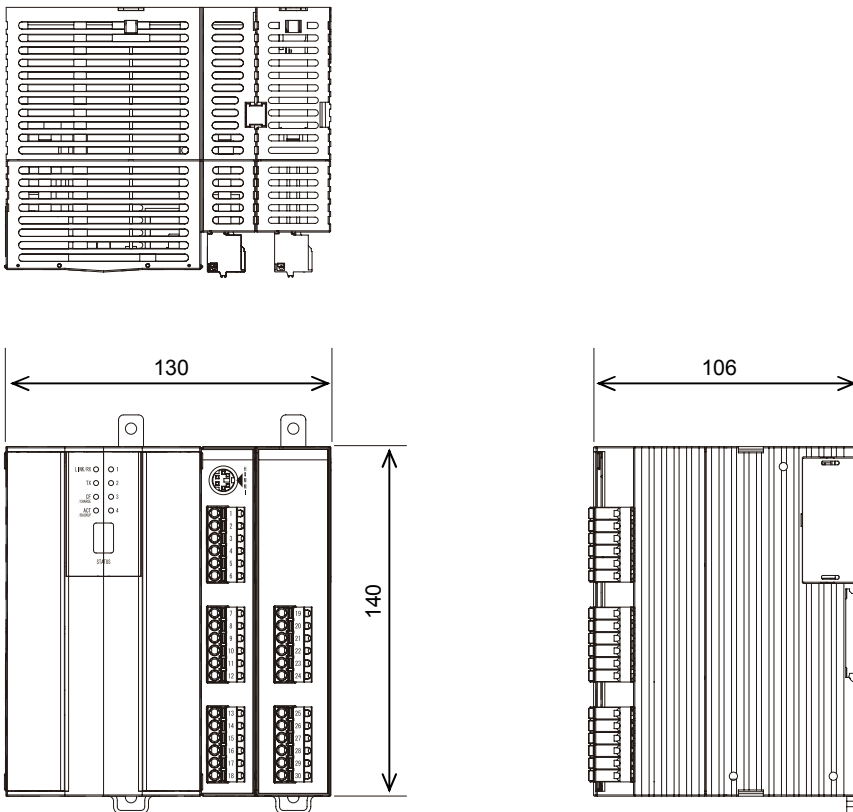


Figure 3. Dimensions (mm): Model BCY44100M001

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Specifications are subject to change without notice.

Yamatake Corporation
Building Systems Company

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