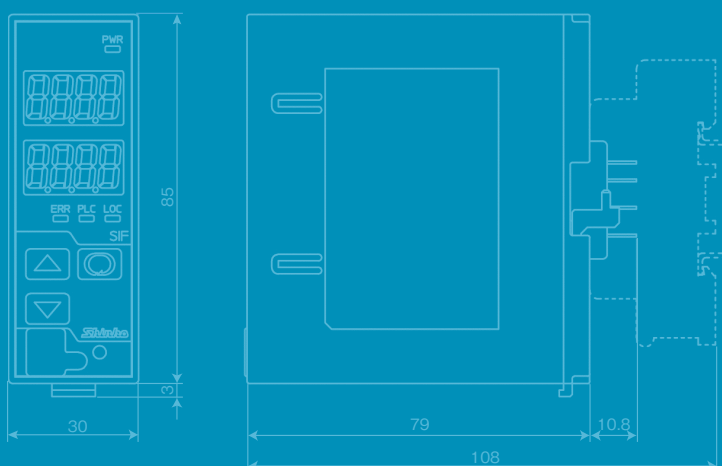


4 Communication Methods

The Best Choice Is Yours



Enables communication between PLC and Peripheral Devices
Connect up to 95 units



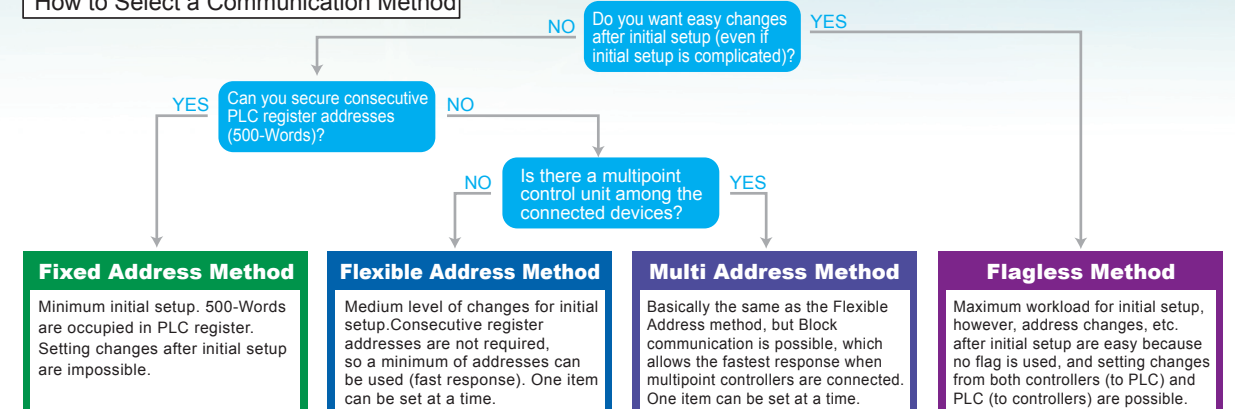
Easy connection without programming (Shinko WCL-13A series)
Easy maintenance (plug-in socket)

Interfaces between PLC and Peripheral Devices

Select from 4 Communication Methods!



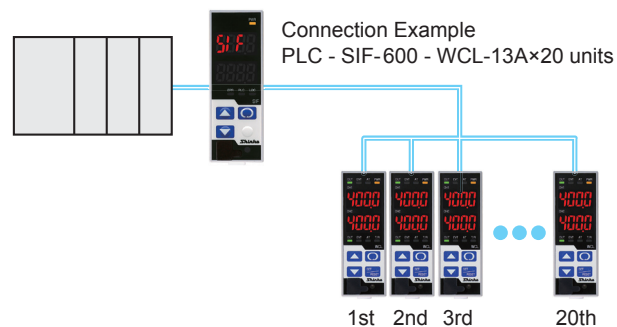
How to Select a Communication Method



Easy Initial Setup

Fixed Address Method

If consecutive PLC register addresses can be secured, this method is made easy by using the default values of the SIF-600, without programming.



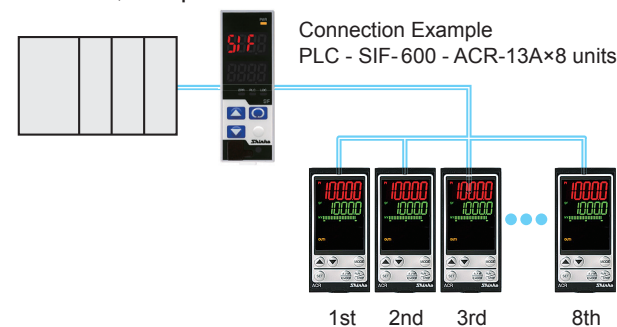
Explanation

Communication between Devices	Communication occurs one item at a time. (Single Read/Single Write)
	PLC SIF-600 Controllers Single Read/Single Write Items 500-Words Fixed Items 500-Words Fixed
PLC register	500-Words are consecutively occupied as data setting addresses.
PLC Set value change flag	Setting changes are conducted by the Set value change flag.

Register Addresses Reducible

Flexible Address Method

PLC register addresses do not need to be set consecutively. As data items can be randomly set, the space occupied by register addresses is greatly reduced, compared to Fixed Address Method.



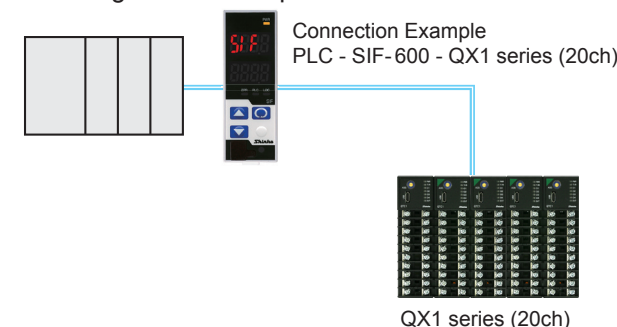
Explanation

Communication between Devices	Communication occurs one item at a time. (Single Read/Single Write)
	PLC SIF-600 Controllers Single Read/Single Write Items Within 500-Words at random Items Within 500-Words at random
PLC register	Data can be set within 500-Words (via console software).
PLC Set value change flag	Setting changes are conducted by the Set value change flag.

Multiple Data Comm.

Multi Address Method

PLC register addresses do not need to be set consecutively. Block (multiple) data communication is available and most suitable for multiple data exchange with a multipoint controller.



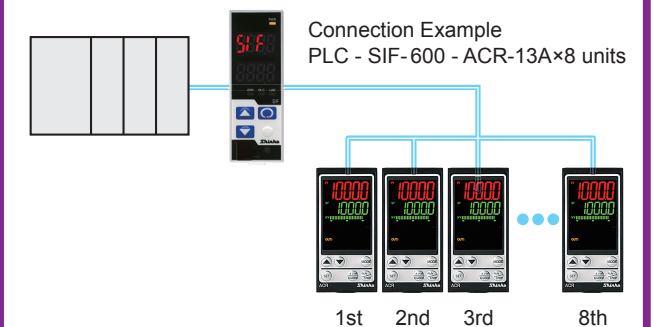
Explanation

Communication between Devices	Block communication possible. (Single Read/Single Write, Block Read/Block Write)
	PLC SIF-600 Controllers Block Read/Block Write Single Read/Single Write Items Within 500-Words at random Items Within 500-Words at random
PLC register	Data can be set within 500-Words (via console software).
PLC Set value change flag	Setting changes are conducted by the Set value change flag.

Easy Setting Changes

Flagless Method

Setting changes after initial setup is easier, which allows a lot of flexibility. Reading, response and writing are occurring constantly.



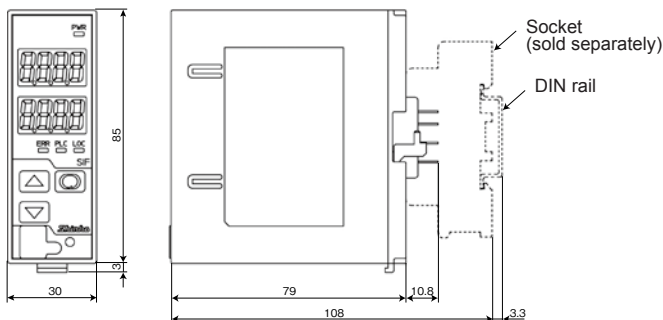
Explanation

Communication between Devices	Communication occurs one item at a time. (Single Read/Single Write)
	PLC SIF-600 Controllers Single Read/Single Write Items Within 500-Words at random Items Within 500-Words at random Addresses for instrument number Addresses for data item
PLC register	Data can be set within 500-Words (via console software). With this method, more addresses for the relevant instrument number and data item are required.
PLC Set value change flag	There is no Set value change flag because there is constant reading, response and writing.

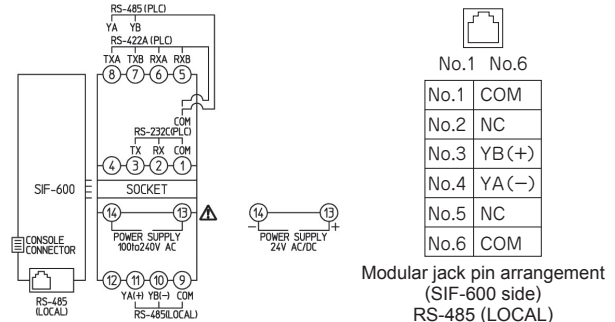
■ Standard Specifications

Name, Model	PLC interface unit, SIF-600
Communication Line	Between SIF and PLC: RS-232C, RS-485, RS-422A (terminal connection), Between SIF and Peripheral devices: RS-485 (Modular jack or terminal connection)
Compatible PLC	Mitsubishi Electric Corp.: MELSEC Q series, QnA series (Q command only), MELSEC FX series (Q command only) Omron Corp.: CJ/CS/CP series Keyence Corp.: KV series Yokogawa Electric Corp.: FA-M3 series Fuji Electric Co., Ltd.: MICREX-SX series
Communication	PLC communication function (Communicates with a PLC selected in the Parameter setting mode.) Communication line: RS-232C/RS-485/RS-422A RS-422A: Built-in terminator (200Ω) between RXA and RXB Communication method: Half-duplex communication start-stop synchronization Communication speed: 9600bps, 19200bps, 38400bps (Default: 9600bps) Data format: Start bit: 1 bit Data length: 7 bits, 8 bits (Default: 7 bits) Parity: No parity, Even, Odd (Default: Even) Stop bit: 1 bit, 2 bits (Default: 1 bit) Peripheral devices communication function Communication line: RS-485 Communication method: Half-duplex communication start-stop synchronization Communication speed: 9600bps, 19200bps, 38400bps (Default: 9600bps) Data format: Start bit: 1 bit Data length: 7 bits, 8 bits (Default: 7 bits) Parity: No parity, Even, Odd (Default: Even) Stop bit: 1 bit, 2 bits (Default: 1 bit) Connectable devices: Controllers with Shinko protocol, MODBUS protocol (ASCII, RTU) Initial setup communication Setting item data can be transmitted via the console software for initial setup. To connect a PC and SIF-600, use communication cable (CMB-001, sold separately), and connect to the Console communication connector on the front panel of the SIF-600. Compatible OS: Windows 7, Windows 8, Windows 10 Communication line: TTL level Protocol: Shinko protocol Communication method: Half-duplex communication start-stop synchronization Communication speed: 19200bps (Fixed)
Display Indicator	Upper display, Lower display: Red LED 4-digit, Character size: 7.4×4mm (H×W) PWR indicator (Yellow): Lit when the power is supplied to the instrument. ERR indicator (Red): Lit when communication errors have occurred. PLC indicator (Yellow): Lit while communicating with the PLC [Serial communication TX output (transmitting)]. LOC indicator (Yellow): Lit while communicating with the peripheral devices [Serial communication TX output (transmitting)].
Supply Voltage	100 to 240V AC 50/60Hz (Allowable fluctuation range: 85 to 264V AC), 24V AC/DC 50/60Hz (Allowable fluctuation range: 20 to 28V AC/DC) (Must be specified)
Insulation Resistance	10MΩ or more, at 500V DC
Dielectric Strength	Power terminal – Communication (LOCAL) terminal ----- 1.5kV AC for 1 minute Power terminal – Communication (PLC) terminal ----- 1.5kV AC for 1 minute Communication (PLC) terminal – Communication (LOCAL) terminal ----- 1.5kV AC for 1 minute
Ambient Temp, Humidity	Ambient temperature: 0 to 50 °C, Ambient humidity: 35 to 85%RH (non-condensing)
Power Consumption	Approx. 7VA
Mounting	DIN rail
Dimensions, Weight	Dimensions: W30×H88×D108 mm [socket (sold separately) included], Weight: Approx. 180g [socket (sold separately) included]
Attached Function	Display-OFF function: In the communication mode, displays are turned off if operation does not take place for the configured time. Auto-light function: Automatically measures and controls brightness of the displays.
Accessories Sold Separately	Socket: ASK-001-1 (Finger-safe, Ring terminals unusable), ASK-002-1 (Ring terminals usable) USB communication cable: CMB-001

■ External Dimensions (Scale : mm)



■ Terminal Arrangement



SAFETY PRECAUTIONS

- To ensure safe and correct use, thoroughly read and understand the manual before using this instrument.
- This instrument is intended to be used for industrial machinery, machine tools and measuring equipment. Verify correct usage after purpose-of-use consultation with our agency or main office.
(Never use this instrument for medical purposes with which human lives are involved.)
- External protection devices such as protection equipment against excessive temperature rise, etc. must be installed, as malfunction of this product could result in serious damage to the system or injury to personnel. Also proper periodic maintenance is required.
- This instrument must be used under the conditions and environment described in the manual. Shinko Technos Co., Ltd. does not accept liability for any injury, loss of life or damage occurring due to the instrument being used under conditions not otherwise stated in this manual.

Caution with respect to Export Trade Control Ordinance

To avoid this instrument from being used as a component in, or as being utilized in the manufacture of weapons of mass destruction (i.e. military applications, military equipment, etc.), please investigate the end users and the final use of this instrument.
In the case of resale, ensure that this instrument is not illegally exported.

- This catalog is as of April 2021 and its contents are subject to change without notice.
- Photos used in this catalog do not show unit in operating status.
- If you have any inquiries, please consult us or our agency.

SHINKO TECHNOS CO., LTD. OVERSEAS DIVISION

Head Office: 2-5-1, Senbahigashi, Minoo, Osaka, 562-0035, Japan
Tel: +81-72-727-6100
Fax: +81-72-727-7006
URL: <https://shinko-technos.co.jp/e/>
E-mail: overseas@shinko-technos.co.jp