

# FC5A-SIF2

## Expansion RS232C Communication Module

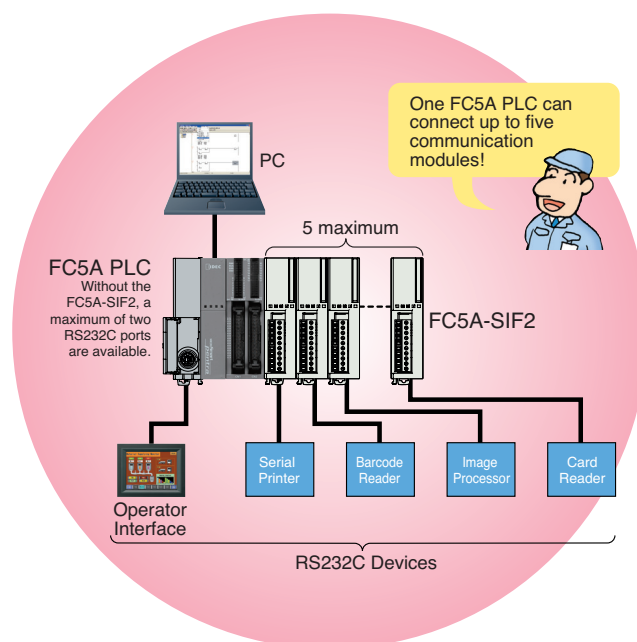
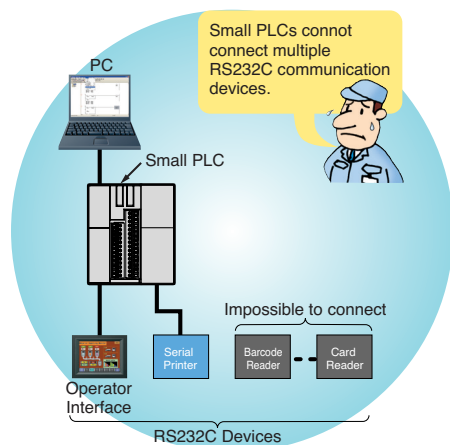
### New Expansion Module for FC5A MicroSmart PLCs

### Add up to five RS232C communication ports to a CPU module

- The communication circuit is isolated from the internal circuit.
- User communications can be used to communicate with various external devices of different protocols.
- Wiring is easy with removable screw terminal blocks, using shielded cables.
- Maximum baud rate: 38.4 kbps

### Application Examples

Connection to RS232C devices, such as serial printers, barcode readers, RFID equipment, vending machines, AV controllers, and PCs.



- WindLDR ver. 5.10 or higher is needed.
- Applicable FC5A CPU module firmware: Ver. 1.10 or higher
- WindLDR ver. 5.10 contains FC5A CPU module firmware ver. 1.10.
- If you have an older version of WindLDR, you can download the latest versions of WindLDR and FC5A CPU module firmware from the IDEC website.

FC5A-SIF2  
Expansion RS232C Communication Module

FC5A MicroSmart CPU Module (Slim Type)

### Types

| Name                                  | Type No.  | Remarks               |
|---------------------------------------|-----------|-----------------------|
| Expansion RS232C Communication Module | FC5A-SIF2 | RS232C × 1 port       |
| User's Manual                         | FC9Y-B969 | English user's manual |

# FC5A-SIF2 Expansion RS232C Communication Module

## Specifications

### • General Specifications

|                                                               |                                                                                                             |
|---------------------------------------------------------------|-------------------------------------------------------------------------------------------------------------|
| Number of Channels                                            | 1                                                                                                           |
| Synchronization                                               | Start-stop synchronization                                                                                  |
| Electrical Characteristics                                    | EIA RS232C compliant                                                                                        |
| Maximum Delay in One Scan                                     | Approx. 4 ms                                                                                                |
| Operating Temperature                                         | 0 to 55°C                                                                                                   |
| Operating Humidity                                            | 10 to 95% RH (no condensation)                                                                              |
| Recommended Cable Specifications                              | Shielded multi-core cable: 24AWG × 6<br>Dielectric strength: 2000 V/min<br>Insulation resistance: 100 MΩ/km |
| Maximum Cable Length                                          | 3m                                                                                                          |
| Connector                                                     | MC1.5/10-G-3.81BK (Phoenix Contact)<br>Applicable terminal block:<br>FC4A-PMT10P (supplied)                 |
| Connector Insertion/Removal Durability                        | 100 times minimum                                                                                           |
| Isolation from Internal Circuit                               | Transformer isolated                                                                                        |
| Quantity of Applicable Expansion RS232C Communication Modules | Slim type CPU module: 5 max.<br>All-in-one 24-I/O type CPU module: 3 max. (Note)                            |
| Internal Current Draw                                         | 85 mA (5V DC)<br>0 mA (24V DC)                                                                              |
| Weight                                                        | Approx. 100g                                                                                                |

Note: The all-in-one 24-I/O type CPU module cannot use the expansion RS232C communication modules in combination with function modules listed below. When using the expansion RS232C communication module in combination with these function modules, use the slim type CPU module.

| Function Module            | Type No.                                                                                    |
|----------------------------|---------------------------------------------------------------------------------------------|
| Analog I/O Module          | FC4A-L03A1, FC4A-L03AP1, FC4A-J2A1, FC4A-J4CN1, FC4A-J8C1, FC4A-J8AT1, FC4A-K1A1, FC4A-K2C1 |
| AS-Interface Master Module | FC4A-AS62M                                                                                  |

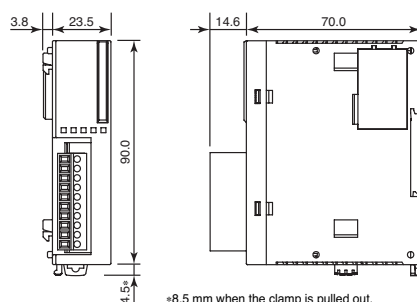
### • Communication Specifications

|                          |                           |                                                        |
|--------------------------|---------------------------|--------------------------------------------------------|
| Communication Parameters | Baud Rate (bps)           | 1200, 2400, 4800, 9600, 19200, 38400                   |
|                          | Data Bits                 | 7 or 8                                                 |
|                          | Parity                    | Odd, even, none                                        |
|                          | Stop Bits                 | 1 or 2                                                 |
| Protocol                 | Maintenance Communication | Possible (except for user program download and upload) |
|                          | User Communication        | Possible                                               |

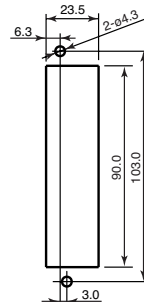
### • Terminal Arrangement

| Terminal | I/O    | Description                                                                                                       |
|----------|--------|-------------------------------------------------------------------------------------------------------------------|
| RS (RTS) | Output | Request to Send (constant voltage terminal)                                                                       |
| ER (DTR) | Output | Data Terminal Ready                                                                                               |
| SD (TXD) | Output | Transmit Data                                                                                                     |
| RD (RXD) | Input  | Receive Data                                                                                                      |
| DR (DSR) | Input  | Data Set Ready                                                                                                    |
| SG (SG)  | —      | Signal Ground                                                                                                     |
| NC       | —      | No connection                                                                                                     |
| ⏏        | —      | Functional ground (can be used as junction terminals of functional ground; not connected to the internal circuit) |
| ⏏        | —      |                                                                                                                   |
| ⏏        | —      |                                                                                                                   |

## Dimensions



### Mounting Hole Layout

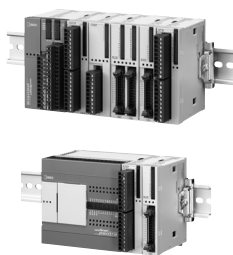


All dimensions in mm.



## FC5A / MICROSmart FC4A Programmable Controllers

### IDEC Logic Engine makes the FC5A slim CPU the fastest PLC in its class Supports double-word and floating point math operations



- Total I/O: 512 points (slim type)  
88 points (all-in-one type)
- Input: 24V DC sink/source
- Output: Relay (240V AC/2A, 30V DC/2A)  
Transistor sink/source (0.3A slim type only)
- Program Capacity: 62.4 KB (slim type)  
27 KB (all-in-one type)
- Instruction Words: 35 basic  
92 advanced (slim type)  
81 advanced (all-in-one type)

WindLDR



WindLDR Ver. 5.\*



For details, see separate catalog EP1101.

Specifications and other descriptions in this leaflet are subject to change without notice.



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