

INSTRUCTION SHEET

FC5A Series

Expansion RS232C Communication Module

This sheet provides brief operating instructions of the expansion RS232C communication module. For details, see the user's manual.

Safety Precautions

In this operation instruction sheet, safety precautions are categorized in order of importance to Warning and Caution:

WARNING

Warning notices are used to emphasize that improper operation may cause severe personal injury or death.

CAUTION

Caution notices are used where inattention might cause personal injury or damage to equipment.

WARNING

- This equipment is suitable for use in Class I, Division 2, Groups A, B, C, D or non-hazardous locations only.
- Explosion hazard - Substitution of components may impair suitability for Class I, Division 2.
- Explosion hazard - Do not disconnect equipment unless power has been switched off or the area is known to be non-hazardous.
- Turn off the power to the MicroSmart before starting installation, removal, wiring, maintenance, and inspection on the MicroSmart. Failure to turn power off may cause electrical shocks or fire hazard.
- Emergency stop and interlocking circuits must be configured outside the MicroSmart. If such a circuit is configured inside the MicroSmart, failure of the MicroSmart may cause disorder of the control system, damage, or accidents.

CAUTION

- The expansion RS232C communication module is designed for installation in equipment. Do not install the expansion RS232C communication module outside equipment.
- Install the expansion RS232C communication module in environments described in the user's manual. If the expansion RS232C communication module is used in places where the expansion RS232C communication module is subjected to high-temperature, high-humidity, condensation, corrosive gases, excessive vibrations, and excessive shocks, then electrical shocks, fire hazard, or malfunction will result.
- The environment for using the expansion RS232C communication module is "Pollution degree 2."
- Prevent metal fragments and pieces of wire from dropping inside the expansion RS232C communication module housing. Ingress of such fragments and chips may cause fire hazard, damage, or malfunction.
- Use wires of a proper size to meet voltage and current requirements. Tighten terminal screws to a proper tightening torque of 0.22 to 0.25 N·m.

- Do not disassemble, repair, or modify the expansion RS232C communication module.
- Users must add a backup or failsafe provision to the control system using the expansion RS232C communication module in applications where heavy damage or personal injury may be caused in case the expansion RS232C communication module should fail.

1 Type

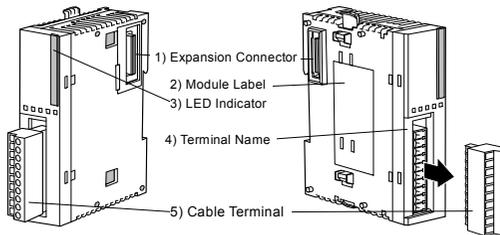
FC5A-SIF2

2 Specifications

Quantity of Channels		1
Electrical Characteristics		EIA RS232C compliant
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 (User program download and upload are impossible.)
	User Communication	Possible
	Data Link	—
	Modbus Communication	—
	Modem Communication	—
Recommended Cable	Shielded multi-core cable	Shielded multi-core cable: 24AWG x 6
	Dielectric strength	2000 V/min
	Insulation resistance	100 MΩ·km
	Maximum Cable Length	3m
Quantity of Applicable Expansion RS232C Communication Modules	All-in-one type CPU module	3 maximum
	Slim type CPU module	5 maximum

Note: The all-in-one 24-I/O type CPU module cannot use the expansion RS232C communication module in combination with Analog modules and AS-Interface master module. When using the expansion RS232C communication module in combination with Analog modules and AS-Interface master module, use the slim type CPU module. For details, see the user's manual.

3 Parts Description

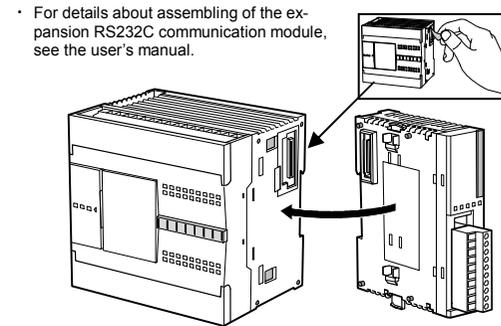


1)	Expansion Connector	Connects to the CPU and other I/O modules. (All-in-one 10- and 16-I/O type CPU modules cannot be connected.)
2)	Module Label	Indicates the expansion RS232C communication module Type No. and specifications.

3)	LED Indicators	PWR: Turns on when this module is powered up. SD: Turns on when this module is sending data. RD: Turns on when this module is receiving data.
4)	Terminal Name	Indicates terminal names.
5)	Cable Terminal	Screw terminals for wiring.

4 Assembling

- When assembling an expansion RS232C communication module, remove the expansion connector seal from the CPU module and the expansion RS232C communication module. The following example demonstrates the procedure for assembling the all-in-one 24-I/O type CPU module. When assembling slim type CPU modules, take the same procedure.

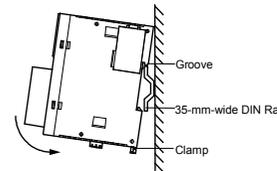


5 Mounting Modules

- For details about mounting and removing of the expansion RS232C communication module, see the user's manual.

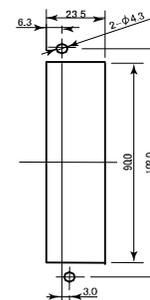
[DIN Rail Mounting]

Use a 35-mm-wide DIN rail and BNL6 mounting clips to secure the modules.



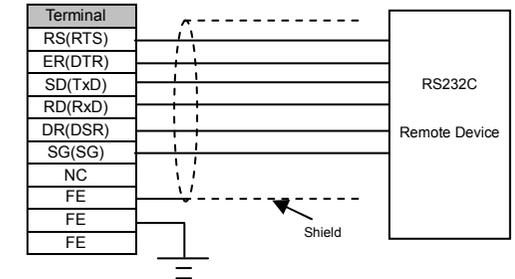
[Direct Mounting]

Use M4 mounting screws (6 mm or 8 mm long). When mounting the expansion RS232C communication module, use optional direct mounting strip FC4A-PSP1P.

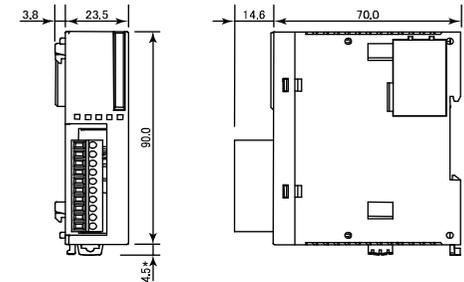


6 Wiring

- For details about wiring of the expansion RS232C communication module, see the user's manual.
- Use a recommended cable or a similar shielded cable for wiring the expansion RS232C communication terminals.
- Crimp the ferrules to the wire cable.
- When the expansion RS232C communication module may malfunction due to external noise, connect the shield of the cable to a proper ground.
- Before wiring, read the user's manual for the remote device connected to the expansion RS232C communication module.



7 Dimensions



*8.5 mm when the clamp is pulled out.

All dimensions in mm.

8 Ferrule

- Type numbers of the ferrule, crimping tool, and screwdriver listed below are the type numbers of Phoenix Contact. When ordering these products from Phoenix Contact, specify the Order No. and quantity listed below.

Ferrule Order No.

Phoenix Type	Order No.	Pcs./Pkt.
AI 0.25-8 YE	3203037	100

Crimping Tool and Screwdriver Order No.

Name	Phoenix Type	Order No.	Pcs./Pkt.
Crimping Tool	CRIMPFOX ZA3	1201882	1
Screwdriver	SZS 0.4×2.5	1205037	10

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