

INSTRUCTION SHEET

MICROSmart

FC6A Series CPU module All-in One type

This sheet provides brief operating instructions of the MICROSmart programmable controller. For details, see the FC6A Series MICROSmart User's Manual.

Safety Precautions

Special expertise is required to use the MICROSmart.

- Read this instruction sheet and the user's manual to make sure of correct operation before starting installation, wiring, operation, maintenance, and inspection of the MICROSmart.
All MICROSmart modules are manufactured under IDEC's rigorous quality control system, but users must add backup or failsafe provisions to control systems using the MICROSmart in applications where heavy damage or personal injury may be caused if the MICROSmart should fail.

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

- Turn off the power to the MICROSmart before starting installation, removal, wiring, maintenance, or inspection on the MICROSmart. Failure to turn off the power may cause damage, 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 MICROSmart is designed for installation in equipment. Do not install the MICROSmart outside of equipment.
Install the MICROSmart in environments as described in the user's manual. If the MICROSmart is used in places where it is subjected to high-temperature, high-humidity, condensation, corrosive gases, excessive vibrations, or excessive shocks it will result in electrical shocks, fire hazard, or malfunction.

This symbol mark means that batteries and accumulators, at their end-of life, should be disposed of separately from your household waste.
If a chemical symbol is printed beneath the symbol shown above, this chemical symbol means that the battery or accumulator contains a heavy metal at a certain concentration. This will be indicated as follows:

1 TYPE

CPU module All-in-One type

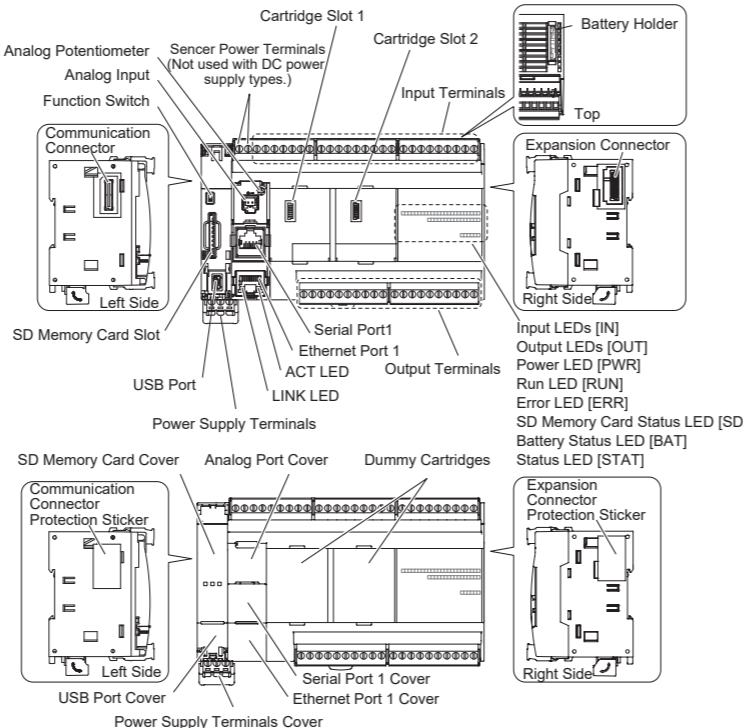
Table with 5 columns: Power Supply Type, Output Type, 40-I/O Type, 24-I/O Type, 16-I/O Type. Rows include 100-240VAC, 24VDC, and 12VDC configurations.

Packing(Pcs/pack): FC6A Unit (1), Connector with analog input cable (1), Battery holder with battery (1) Instruction Sheet (this manual) (1).

2 Specification

Operating Temperature: -10 to +55°C (no freezing)
Expanded Operating Temperature: -25 to -10°C, +55 to 65°C (no freezing)
* See the user's manual for details on use in Expanded Operating Temperatures.

3 Name & Function



4 Assembling Modules

- 1. Grasp the battery holder and remove it from the module.* (a)
2. Remove the old back up battery from the battery holder (c) by pulling the outside hook. (b)
3. Install a new back up battery in the battery holder. Push the battery in until the outside hook (b) clicks.
4. Insert the battery holder into the module. (a)

WARNING

- Warning: Replace Only The Battery With Panasonic BR2032, Or The Alternative Batteries Compatible On The List As Below.
Use of Another Battery May Present A Risk of Fire Or Explosion.

Table with 2 columns: Alternative Batteries Compatible with BR2032, Manufacturer. Rows include CR2032X, CR2032W, CR2032A, and CR2032B.

CAUTION

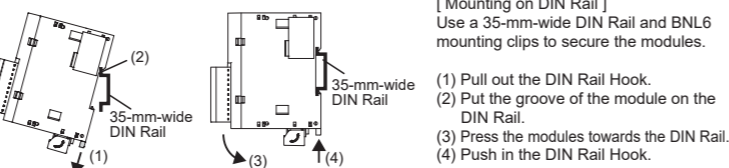
- Change the battery before the old battery expires.
Do not change the battery when the MICROSmart is power ON. Doing so may damage the product.

5 Default Setting of the Function Switch

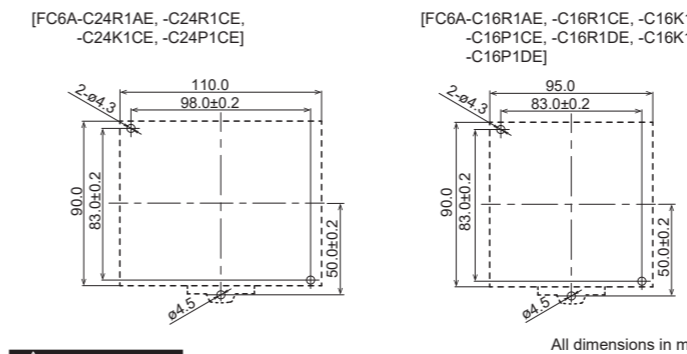
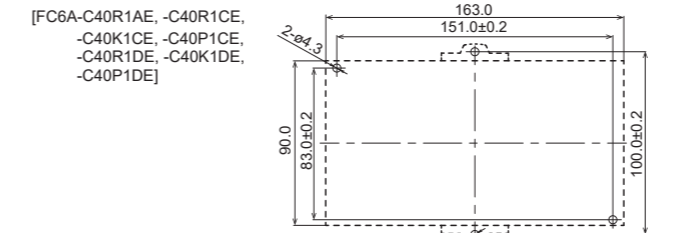
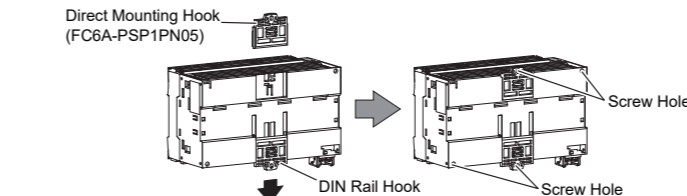
- The default setting of the function switch is 0.
The PLC will not run if the function switch is 0 when Run/Stop PLC by Function Switch is enabled in WindLDR and a program is downloaded with Automatic start after download enabled.

6 Mounting Modules

For details about mounting and removing modules, see the user's manual.



[Direct Mounting on Panel Surface]
Pull out the DIN Rail Hook on the back of the module and insert the direct mounting Hook (FC6A-PSP1PN05) into the slot. Attach the module to the mounting plate using the screw holes. Attach the module to the mounting plate using M4 tapping screws, as shown below, or make 5 to 6mm mounting holes and secure the module using M4 pan head screws.

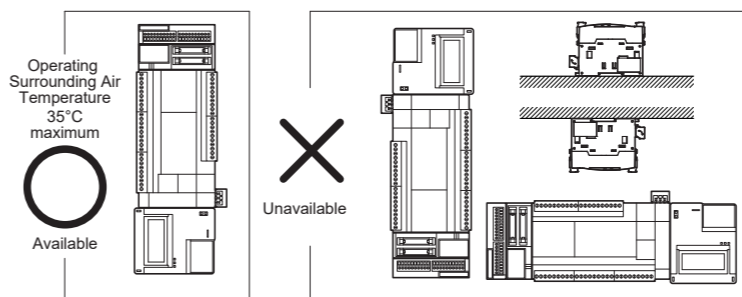
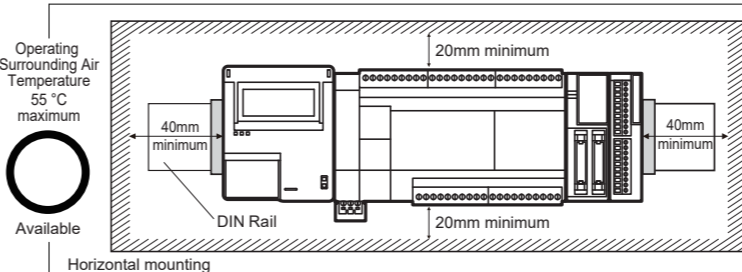


CAUTION

When an expansion module is not connected next, don't peel off the protection sticker.

7 Installation in Control Panel & Mounting Direction

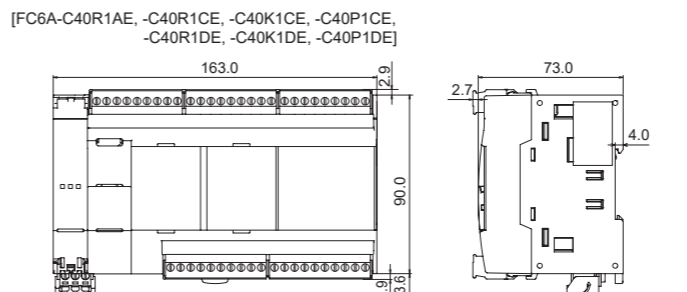
Mount the FC6A MICROSmart as follows. To provide ample ventilation, ensure that there is sufficient space between the FC6A MICROSmart and other devices, heat sources, and panel surfaces.



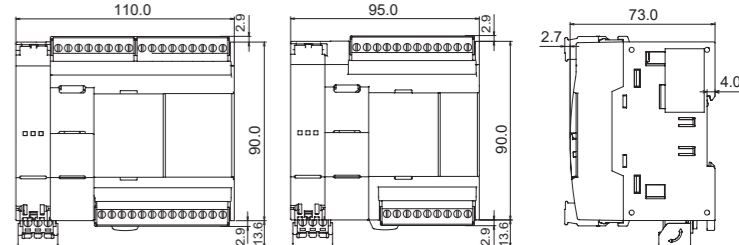
CAUTION

For UL/CUL, Horizontal mounting only.

8 Dimensions



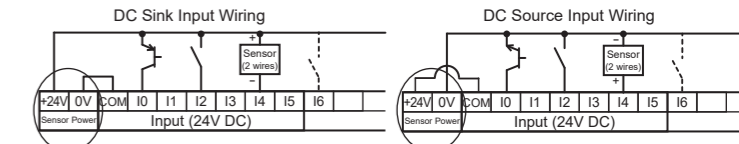
[FC6A-C24R1AE, -C24R1CE, -C24K1CE, -C24P1CE] [FC6A-C16R1AE, -C16R1CE, -C16K1CE, -C16P1CE, -C16R1DE, -C16K1DE, -C16P1DE]



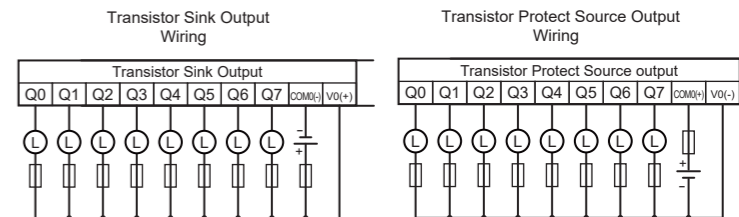
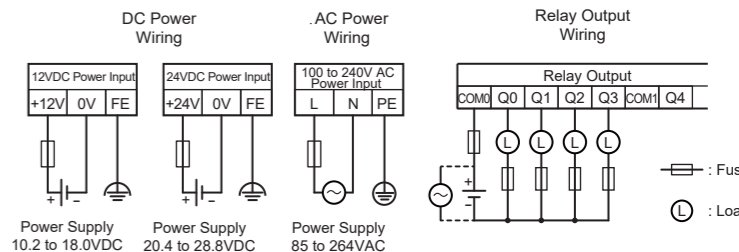
*See the user's manual for more details on the dimensions.

All dimensions in mm.

9 Wiring



100-240V AC power supply type: Support of sensor power which is in the circle area of above figure is able to be used instead of 24V DC external power.
24V DC power supply type: No support of sensor power. Therefore 24V DC external power is required.
12V DC power supply type: No support of sensor power. Therefore 12VDC external power is required.



*See the user's manual for more details on the wiring.

CAUTION

- Use a Class 2 power supply source when power supply voltage less than 30V DC is required to power the terminal.
Use copper conductor only.
When the MICROSmart is used in a Surrounding Air Temperature of 65°C, reduce the I/O voltage and I/O utilization. See the user's manual for details.

10 Applicable Cable / Recommended Ferrule / Recommended Screwdriver / Tightening Torque

The recommended ferrule is made by Phoenix Contact or Weidmüller. To crimp the ferrules shown below, use a special crimping tool. (CRIMPFOX6 (1212034) or PZ 6 Role L (1444050000)) To the terminal block, use the recommended screwdriver made by Phoenix Contact or Weidmüller and tighten terminal screws tightening torque.

Table with 3 columns: Applied cable, Recommended ferrule, Tighten torque. Rows include UL1007 / UL2464 and UL1015 with various cable and ferrule specifications.

Table with 2 columns: Screwdriver, Tighten torque. Specifications for SZS 0.6x3.5 and SDS 0.6x3.5x100 screwdrivers.

() indicates the Type No. of PHOENIX CONTACT GmbH & Co. KG and Weidmüller Interface GmbH & Co. KG.

11 Precaution for Disposal

- Dispose of the FC6A Series MICROSmart as an industrial waste.

MicroSmart User's manual can be downloaded from http://www.idec.com/FC6Amanuals