# IDEC

## **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.
- Keep this instruction sheet where it can be accessed by the end user.
  All MICROSmart modules are manufactured under IDEC's rigorous quality control system, but users must add backup or failsafe provisions to control systems use the MICROSmart in applications where heavy damage or personal injury may be caused if the MICROSmart should fail.
- Install the MICROSmart according to the instructions described in this instruction sheet and the user's manual. Improper installation will result in falling, failure, or malfunction of the MICROSmart.
- Make sure that the operating conditions are as described in the user's manual. If you are uncertain
- about the specifications, contact IDEC before using the MICROSmart. In this instruction sheet, safety precautions are as categorized in order of importance from Warning and Caution

### 🕂 WARNING

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

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

#### MARNING

• 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
- m, damage, or accidents • SUITABLE FOR USE IN CLASS 1, DIVISION 2, GROUPS A,B,C AND D HAZARDOUS
- COATIONS, OR NONHAZARDOUS LOCATIONS ONLY.
   Cet appareil convient uniquement à l'emploi dans des zones dangereuses de classe 1, groupes A,B,C et D; ou dans des zones non dangereuses. • WARNING - EXPLOSION HAZARD - DO NOT DISCONNECT EQUIPMENT WHILE THE CIRCUIT
- IS LIVE OR UNLESS THE AREA IS KNOWN TO BE FREE OF IGNITABLE CONCENTRATIONS. Avertissement: risque d'explosion. Ne pas débrancher l'appareil tant que le circuit est sous tension
- ou à moins dêtre certain que lieu d'utilisation soit exempt de concentrations inflammables. THIS EQUIOMENT IS AN OPEN -TYPE DEVICE MEANT TO BE INSTALLED IN AN ENCLOSURE SUITABLE FOR THE ENVIRONMENT THAT IS ONLY ACCESSIBLE WIHT THE USE OF A TOOL OR KEY
- Cet appareil doit être installé dans un boîtier qui est adapté à l'environnement d'utilisation et
- uniquement accessible avec un outil d'ouverture ou une clé. WARNING EXPLOSION HAZARD THE USB PORT IS NOT FOR USE IN HAZARDOUS LOCATIONS.
- Avertissement: risque d'explosion. Le port USB ne doivent pas être utilisés dans des emplacements dangereux

#### CAUTION

• The MICROSmart is designed for installation in equipment. Do not install the MICROSmart outside of equipment.

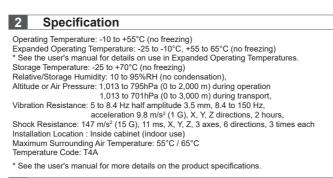
- Install the MICROSmart in environments as described in the user's manual. If the MICROSmart is used in places where it is subjected to high-temperature, high-humidity, condensation, corrosive gases,
- excessive vibrations, or excessive shocks it will result in electrical shocks, fire hazard, or malfunction. The environment rating for using the MICROSmart is "Pollution degree 2." Prevent metal fragments and pieces of wire from dropping inside the MICROSmart 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 the
- proper tightening torque of 0.51 N-m. Use an IEC60127-approved fuse on the power line and output circuit to meet voltage and current
- requirements (Recommended fuse: Littlefuse 5×20mm slow-blow type 118000 series/Type T) This is required when exporting equipment containing MICROSmart to Europe.
- Use an EU-approved circuit breaker. This is required when exporting equipment containing MICROSmart to Europe.
- If relays or transistors in the MICROSmart output modules should fail, outputs may remain on or off For output signals which may cause heavy accidents, provide a monitor circuit outside of the MICROSmart
   Do not disassemble, repair, or modify MICROSmart modules.
- 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: Hg : Mercury (0.0005%) Cd : Cadmium (0.002%) Pb : Lead (0.004%)
- In the European Union there are separate collection systems for used batteries and accumulators
- Please dispose of batteries and accumulators correctly in accordance with each country or local regulation

#### 1 TYPE

#### CPU module All-in-One type

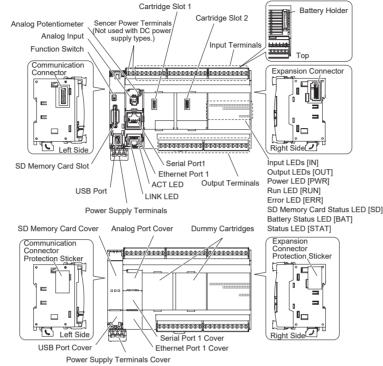
GF 0 module Al-in-one type					
	Power Supply Type	Output Type	Type No.		
			40-I/O Type	24-I/O Type	16-I/O Type
	100-240VAC	Relay	FC6A-C40R1AE	FC6A-C24R1AE	FC6A-C16R1AE
	24VDC	Relay	FC6A-C40R1CE	FC6A-C24R1CE	FC6A-C16R1CE
		Transistor Sink	FC6A-C40K1CE	FC6A-C24K1CE	FC6A-C16K1CE
		Transistor Protect Source	FC6A-C40P1CE	FC6A-C24P1CE	FC6A-C16P1CE
	12VDC	Relay	FC6A-C40R1DE	-	FC6A-C16R1DE
		Transistor Sink	FC6A-C40K1DE	-	FC6A-C16K1DE
		Transistor Protect Source	FC6A-C40P1DE	-	FC6A-C16P1DE

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

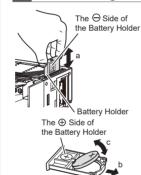




B-1816 (6)



#### Assembling Modules 4



· 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 Avertissement: Remplacez uniquement la batterie par BR2032 de PANASONIC ou par une batterie compatible de la liste ci-dessous. L'utilisation d'une autre piles peut présenter un risque de feu ou d'explosion

1. Grasp the battery holder and remove it from the module.\* (a)

2. Remove the old back up battery from the battery holder (c)

3. Install a new back up battery in the battery holder

4. Insert the battery holder into the module. (a)

\* The length of the battery holder is 36 mm.

Push the battery in until the outsite hook (b) clicks

by pulling the outside hook. (b)

A WARNING

Alternative Batteries Compatible with BR2032 Murata CR2032X or CR2032W CR2032A or CR2032B Panasonic

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- 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.
  Change the battery within 1 minute of turning off the power supply, or the device value will be reset to its initial values
- Battery May Explode If Mistreated. Do Not Recharge, Disassemble Or Dispose Of In Fire. • La piles peut exploser en cas de mauvais usage. Ne pas recharger, démonter ou jeter la piles au feu.

DIN Rai

#### 5 Default Setting of the Function Switch



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- 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. To run the PLC, the function switch must be set to 1
- \* Enabled is the default setting for Run/Stop PLC by Function Switch in WindLDR. \* For details on the function switch, see the user's manual

#### 6 Mounting Modules

35-mm-w DIN Rail

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

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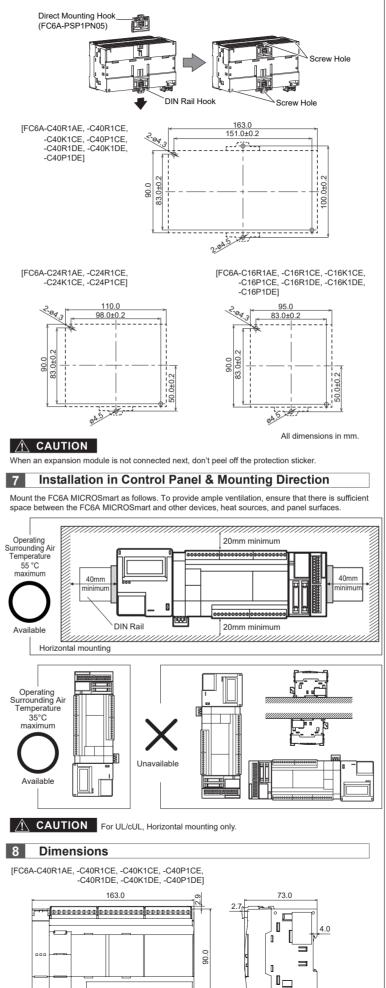
Mounting on DIN Rail ] Use a 35-mm-wide DIN Rail and BNL6

(4) Push in the DIN Rail Hook

#### [Direct Mounting on Panel Surface]

Pull out the DIN Rail Hook on the back of the module and insert the direct mounting Hool (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.

Always give sufficient consideration to operability, ease-of-maintenance, and environmental resistance when deciding on the mounting position



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