IDEC

Think Automation and beyond...

The MicroSmart FC6A *Plus*

Next Generation PLC expands the limits of productivity

Expanding upon the groundbreaking IDEC FC6A Micro PLC, the MicroSmart FC6A *Plus* can control large machines or entire small-scale manufacturing facilities with:

- Up to 2060 I/O, with a maximum of 511 analog I/O
- Extremely fast basic instruction execution of 21 nanoseconds
- 800-kB (100k steps) of program memory
- Extensive data memory, more than double the capacity of a typical micro PLC

These features allow the MicroSmart FC6A *Plus* to handle large programs with complex control requirements such as positioning, PID, flow totalization and recipes.

The MicroSmart FC6A *Plus* is one of world's first micro PLCs with full-featured app access from any iOS or Android smartphone or tablet. Although browser-based access is also included, many users will prefer the one-touch access and superior speed of the app.
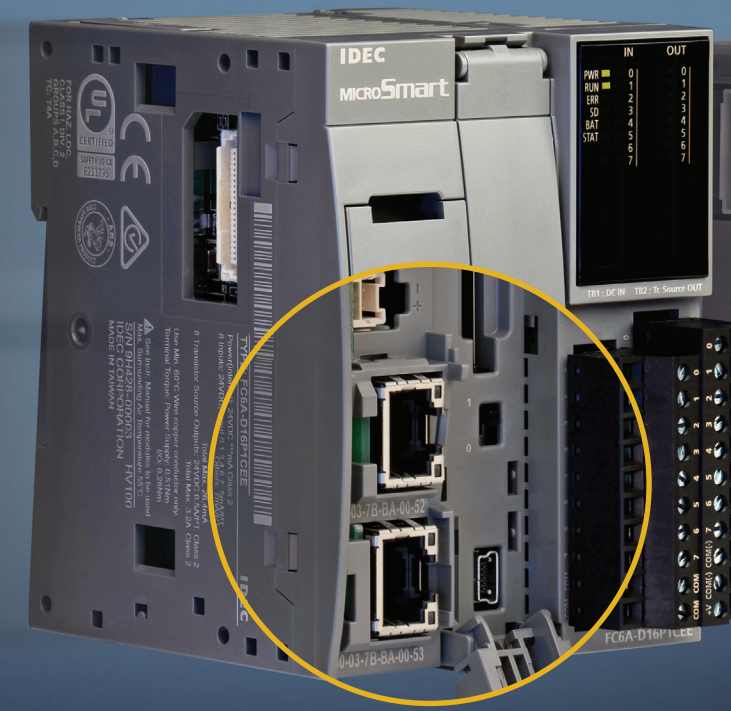
MICRO Smart
FC6A Plus

800.262.4332

http://FC6A.IDEC.com

More Power.
More Performance.
More Connectivity.

The MicroSmart FC6A *Plus*

Up to Expansion Rack 10

Expansion Rack 3

Expansion Rack 2

Expansion Rack 1

HMI Module

Cartridge Expansion Base Module

Interface Module

Expansion Modules

MicroSmart FC6A *Plus*

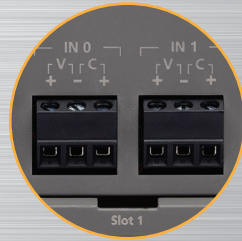For a complete overview of all the features and functions in the new FC6A, visit our website at: http://FC6A.IDEC.com

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Superior Design

Maximum 2,060 Discrete I/O
No other micro PLC in the market can match this capacity.

Maximum 511 Analog I/O
Easily handle even the most complex and large process control applications.

Expansion Modules Up to 63 expansion modules make the MicroSmart FC6A *Plus* the most powerful in the market.

SD Memory SD card for data logging, program storage/transfer, firmware updating or recipe storage.
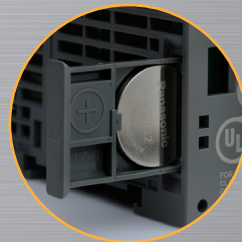
Bluetooth, Analog and Discrete I/O Cartridges
These cost-effective I/O cartridges allow users to add I/O point and Bluetooth communication.

Up to 33 Serial Ports
Using a combination of communication cartridges and RS232C/RS485 expansion interface modules, up to 33 serial ports can be utilized, 10x more than any micro PLC in the market.

USB Port Can be used to provide power, or to transfer software programs from a PC to the CPU. Can also be used for PC-based monitoring of the PLC.

Replaceable Battery Low-battery warning provided at CPU via an LED, and remotely via a CPU status output, to trigger an HMI alarm or send an email alert.

Removable Terminal Blocks
Simplifies wiring, installation and module replacement—just wire a terminal block and plug it into a module.

Ultimate Performance

Dual Ethernet ports
One port can be configured for an office network, and the second port can be configured for a control network to provide flawless maintenance and control.

Modbus TCP/IP and RTU
These two leading industrial communication protocols are supported in the native Ethernet and optional serial port respectively. Setup is quick and communication to other devices is seamless.

Improved PID Algorithm
A new and improved PID algorithm allows the FC6A MicroSmart *Plus* CPU to perform even the most complex PID control.

Expanded Memory
Program memory is 800kB (100K steps) with 2,000 timers and 512 counters.

BACnet* Protocol
This leading building automation control protocol is supported in the native Ethernet port.

Fast Processing Speed
Execution time approaching the processing speed of a PAC controller, 33 times faster than IDEC FC5A MicroSmart Pentra.

Upgradable Firmware
Firmware is upgradable for all CPU and expansion modules through WindLDR software or SD memory.

Time-Base Applications
Real-time clock built in, or obtain time from SNTP Server.

Stepper Motion Control
The MicroSmart FC6A *Plus* combined with a new line of motion control stepper products from Advanced Micro Controls provides users with simple, powerful control for single- and multi-axis motion.

*BACnet available Spring 2018 as firmware upgrade

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Manage your production... from anywhere

The MicroSmart FC6A *Plus* has a built-in web server, providing secure communication with any Internet-connected device including laptops, PCs, smartphones and tablets. This feature provides two-way communication from the device to the MicroSmart FC6A *Plus*, allowing remote users to view and interact with stored web pages, which can be created with no HTML programming required.

No HTML Programming Required
WindLDR 8.2 or later versions have a new Web Page Editor, which makes it simple to create professional and dynamic web pages to monitor and control the MicroSmart FC6A *Plus*, with no HTML programming required.

Drag-and-Drop Simplicity
It doesn't get any easier than this! Text, objects, images, data displays, data input and other information can be placed anywhere on the web page using drag-and-drop commands.

Over 10,700 Images Available
With over 10,700 pre-built images, the same ones used in IDEC's powerful WindO/I-NV HMI programming software, you can construct a professional web page in minutes.

Extensive Object Library
Want to create a bar graph, gauge, pie chart, trend chart, pilot light, slider, pushbutton or other object on your web page? Just pick the object, drop it on the screen, and link it to its data source by filling in the blanks.

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Industrial Internet of Things

Email & Text Messaging

iOS & Android

FTP Communication

SCADA Monitoring and Control

Bluetooth communications

BACnet

**BACnet available Spring 2018 as firmware upgrade

iOS and Android Apps
These free apps provide quick and convenient remote monitoring and control from smartphones and tablets. Users can upload and download PLC programs; monitor and update PLC status, data registers, internal relays, timers and counters, etc.; save, retrieve, and send files in cloud database such as Apple iCloud, Google Drive, Dropbox, etc.; access logged data and manage files in SD memory card; and download system firmware.

Bluetooth Communication
Use your laptop or smartphone to monitor, download and upload programs wirelessly via Bluetooth, or to manage data with Program File Manager. Bluetooth devices such as bar code readers can also communicate with the PLC.

FTP Communication
The MicroSmart FC6A *Plus* can be configured as an FTP Client or Server for local or remote transfer of ladder programs and logged data between servers and the PLC.

Email & Text Messaging Capability
Connecting the Ethernet port on the MicroSmart FC6A *Plus* or on the optional HMI module to the Internet provides email and text notification to quickly inform personnel of alarms or events, allowing them to take remedial action. Can be used with third-party email servers, such as Gmail and Yahoo.

SCADA Monitoring and Control
Connecting the Ethernet or one of the serial communication ports on the MicroSmart FC6A *Plus* to a supervisory control and data acquisition (SCADA) system provides two-way communications for monitoring and control.

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Compare FC6A Models

Minimizing complexity of programming and shortening engineering design cycles while providing the performance you require, the MicroSmart FC6A Plus delivers efficient automation solutions to you and your customers.

Go to http://FC6A.IDEC.com to find out why we call the MicroSmart FC6A Plus "The Next Level of Micro PLC!"

	MicroSmart FC6A *Plus*		MicroSmart FC6A All-in-One			
	16 I/O CPU	32 I/O CPU	16 I/O CPU	24 I/O CPU	40 I/O CPU	40 I/O CAN J1939 CPU
Power Voltage	24V DC	24V DC	24V DC 100 - 240V AC	24V DC 100 - 240V AC	12V DC 24V DC 100 - 240V AC	12V DC 24V DC 100 - 240V AC
Program Capacity	800K Bytes (100,000 steps)	800K Bytes (100,000 steps)	384K Bytes (48,000 steps)	384K Bytes (48,000 steps)	384K Bytes (48,000 steps)	640K Bytes (80,000 steps)
Maximum Expansion Modules	63 modules	63 modules	12 modules	15 modules	24V DC and 100-240V AC Type: 15 Modules 12V DC Type: None	24V DC and 100-240V AC Type: 15 Modules 12V DC Type: None
Maximum Digital I/O	2,044	2,060	404	508	508: 24V DC and 100-240V AC Type 48: 2V DC Type	508: 24V DC and 100-240V AC Type 48: 12V DC Type
Maximum Analog I/O	511	511	101	125	24V DC and 100-240V AC Type: 127 12V DC Type: 7	24V DC and 100-240V AC Type: 127 12V DC Type: 7
Communication Protocol	BACnet** Modbus TCP Modbus RTU ASCII Communication (Serial, TCP/UDP) Bluetooth FTP Client/Server	BACnet** Modbus TCP Modbus RTU ASCII Communication (Serial, TCP/UDP) Bluetooth FTP Client/Server	Modbus TCP Modbus RTU ASCII Communication (Serial, TCP) Bluetooth FTP Client/Server	Modbus TCP Modbus RTU ASCII Communication (Serial, TCP) Bluetooth FTP Client/Server	Modbus TCP Modbus RTU ASCII Communication (Serial, TCP) Bluetooth FTP Client/Server	CAN J1939 Modbus TCP Modbus RTU ASCII Communication (Serial, TCP) Bluetooth FTP Client/Server
IIoT Ready	iOS and Android Apps Web Server Function Email/Text Notification Web Page Creation Tool	iOS and Android Apps Web Server Function Email/Text Notification Web Page Creation Tool	iOS and Android Apps Web Server Function* Email/Text Notification* Web Page Creation Tool	iOS and Android Apps Web Server Function* Email/Text Notification* Web Page Creation Tool	iOS and Android Apps Web Server Function* Email/Text Notification* Web Page Creation Tool	iOS and Android Apps Web Server Function* Email/Text Notification* Web Page Creation Tool

*using FC6A-PH1 module   **BACnet available Spring 2018 as firmware upgrade

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