

Think Automation and beyond...



# FC4A-SX5ES1E

## Web Server Unit



IDEC CORPORATION

# A New Powerful Tool for the MicroSmart PLC!

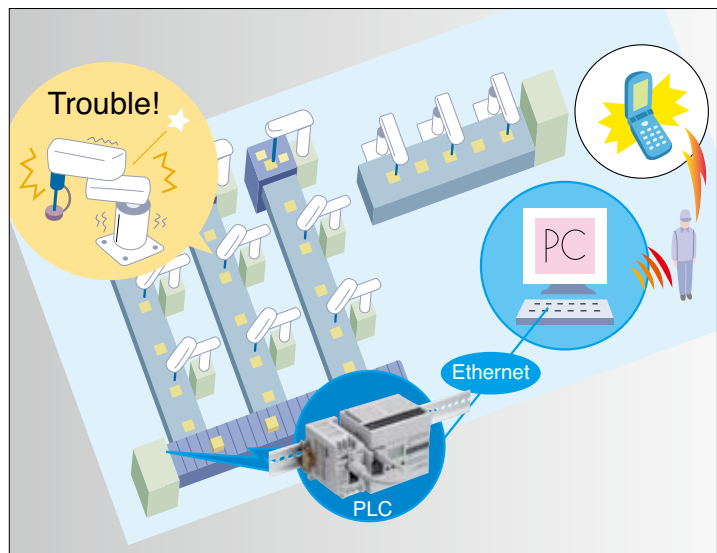
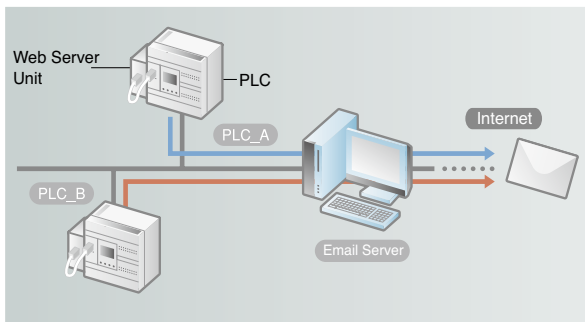


- Email messages can be sent to personal computers and mobile phones to alert a user programming a PLC to receive inputs of abnormal machine conditions.
- Ethernet communication between PLC and PC enables remote maintenance.
- Allows for access to data within the PLC using a standard web browser.
- User communication enables 1:1 communication between PLCs via Ethernet.
- Connect to the MicroSmart and as well as any operator interface with an Ethernet interface and a TCP/IP client function.



## Message transmission function

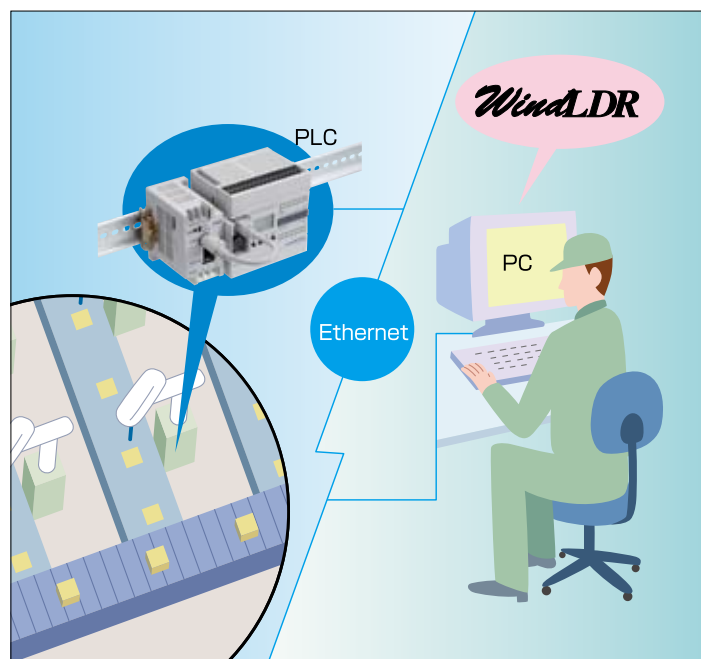
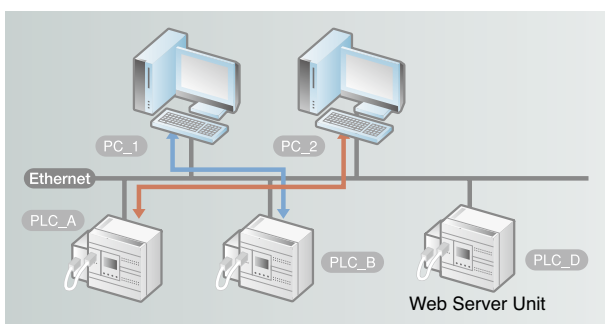
The MicroSmart is programmed to detect abnormal conditions of machines. When an error occurs, an email message is sent to the address of mobile phones and personal computers registered within the web server unit.



## Remote monitoring and control

Operating conditions of machines can be easily monitored and changed from remote places.

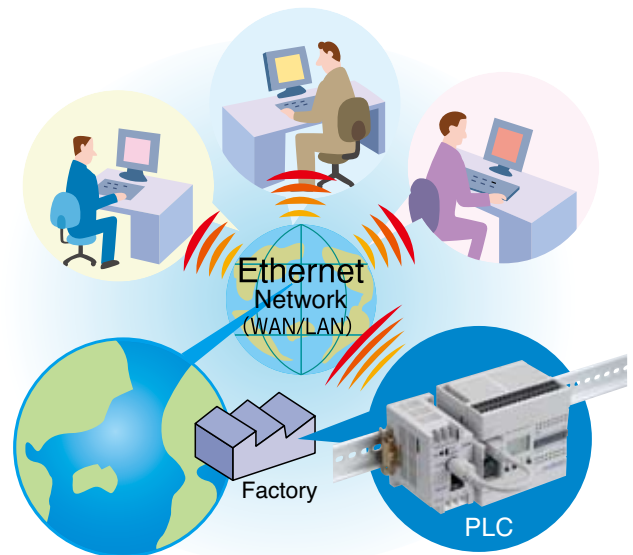
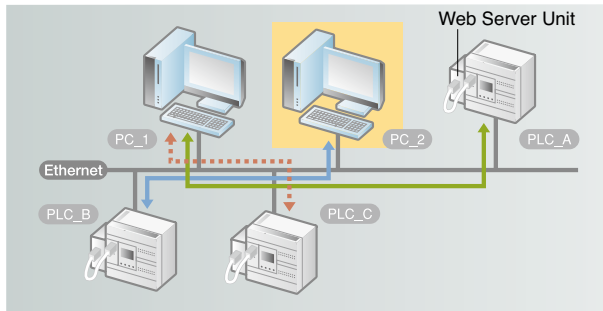
WindLDR functions can be used on a MicroSmart installed in remote places, for monitoring of machines, configuration, and to upload and download user programs. MicroSmart does not need special user programs to communicate with a PC. Also, not only WindLDR but standard SCADA software applicable to Ethernet enables graphical displays of monitoring and maintenance status.



## Monitor and control the web server unit from any PC

Web pages stored in the web server unit eliminates the need to add any extra software to configure the MicroSmart.

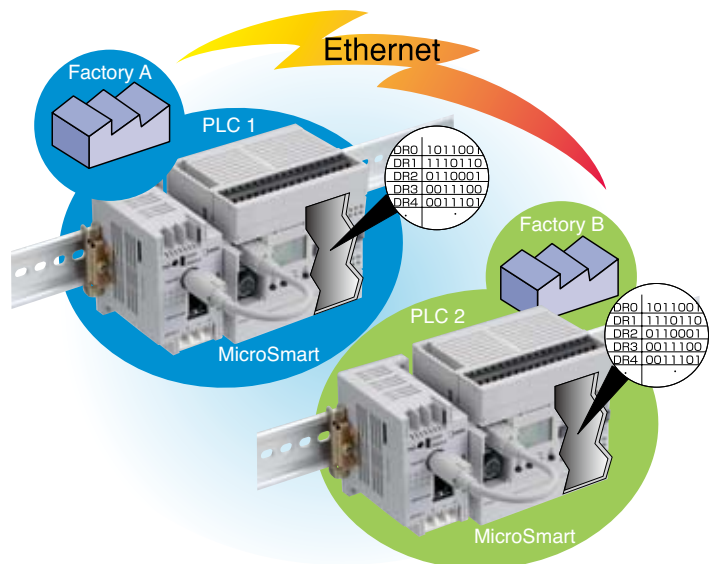
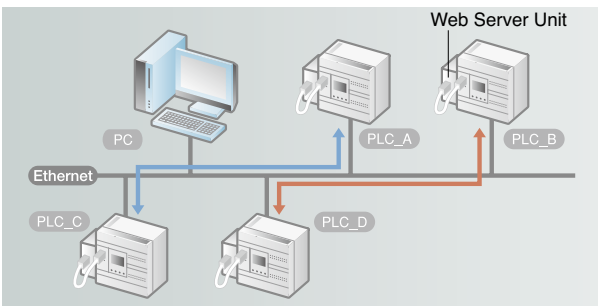
The web server unit can be monitored and controlled from any PC using standard internet browsers such as Internet Explorer. Also, the MicroSmart can read and write operands (JAVA applets created by the user).



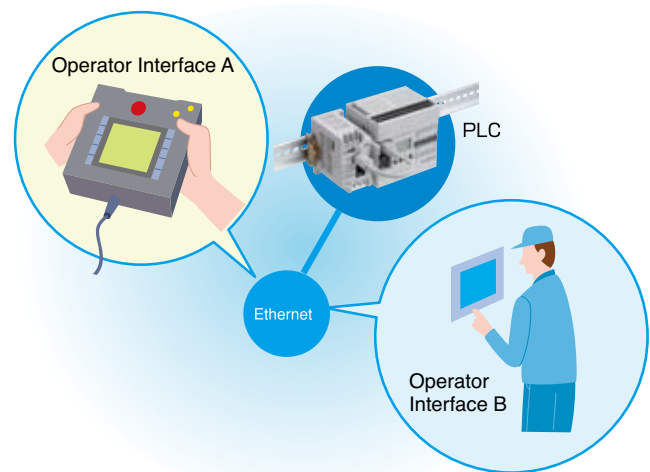
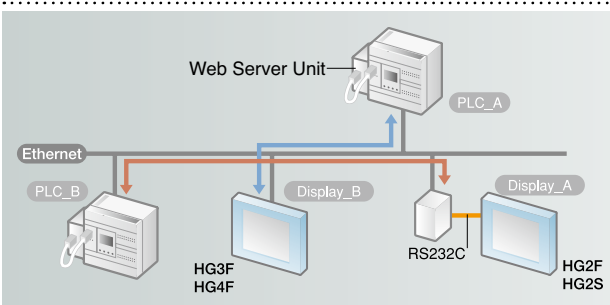
## Data can be exchanged between several MicroSmart units using user communication functions

The web server unit connected to a MicroSmart automatically communicates to external devices.

Several MicroSmart units can be monitored with a single PC. Applications can be constructed to display alarm conditions on a PC screen. (The user must create this program.) Also, external devices, such as operator interfaces connected directly to Ethernet, can be controlled using this function.



## The MicroSmart can be connected with an operator interface



## Security protection using passwords

Unauthorized access can be rejected via password protection.

# Web Server Unit

## Type Number

Product Name	Type No.	Quantity
Web Server Unit	FC4A-SX5ES1E	1
PLC Communication Cable	FC4A-KC3C	1
35mm DIN Rail (aluminium, 1m)	BAA1000PN10	10
Mounting Clip	BNL6PN10	10
Manual	FC9Y-B919	1

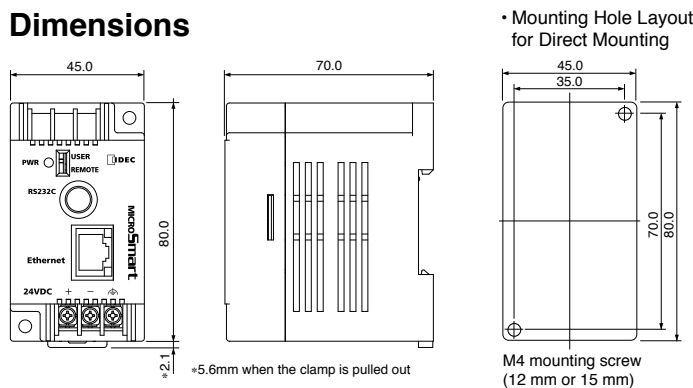
## General Specifications

Rated Power Voltage	24V DC
Allowable Voltage Range	20.4 to 26.4V DC
Current Draw	70 mA
Allowable Momentary Power Interruption	10 ms maximum
Dielectric Strength	500V AC, 1 minute
Insulation Resistance	10MΩ minimum (500V DC megger)
Noise Resistance	DC power terminal: 1.0 kV, 50 ns to 1 μs Ethernet cable: 0.5 kV, 50 ns to 1 μs (coupling clamp)
Inrush Current	4A maximum
Operating Temperature	0 to 55°C
Storage Temperature	-40 to +70°C (no freezing)
Relative Humidity	10 to 95% (no condensation)
Pollution Degree	2 (IEC 60664-1)
Corrosion Immunity	Free from corrosive gases
Degree of Protection	IP20 (IEC60529)
Vibration Resistance	When mounted on a DIN rail: 5 to 9 Hz amplitude 3.5 mm 9 to 150 Hz acceleration 9.8 m/s <sup>2</sup> (1G) 2 hours in each of 3 axes
Shock Resistance	147 m/s <sup>2</sup> (15G), 11 ms duration 3 shocks each in 3 axes
Weight (approx.)	150g

## Interface Specifications

Communication	RS232C <=> Ethernet conversion function
Ethernet Specifications	Electrical characteristics: Complies with IEEE802.3 Transmission speed: 10BASE-T/100BASE-TX (Not CE compliant) Communication protocol: IP/ICMP/ARP Ethernet protocol: TCP/SMTP/HTTP/Telnet No. of TCP connections: 1
Serial I/F Specifications	Electrical characteristics: EIA RS232C Transmission speed: 9600 to 115200 bps Synchronization: Asynchronous Communication protocol: Full duplex Transmission control: RTS/CTS, XON/OFF, None
Connection Method	Ethernet interface: RJ45 Serial interface: Mini DIN 8-pin connector Cable Type No.: FC4A-KC3C
Major Functions	Remote maintenance: Uploading, downloading and monitoring using WindLDR via Ethernet  Web server: Configure the web server unit using Internet Explorer etc. Reading and writing PLC operands using Java applet. Web file area: 512 Kbyte Compliant browser: Internet Explorer 6.0 Netscape Navigator 7.2  Ethernet user communication: User communication using Ethernet Message transmission: Registered outgoing message 32 message types 3 characters max. 2 email addresses 64 address characters max.
Option	Utility CD: Configuration file, PLC operand monitor sample programs, sample program configuration instructions, instruction manual

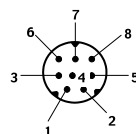
## Dimensions



## PLC Connector

(Type No. FC4A-KC3C, Cable Length: 100 mm) • Connector Pinout

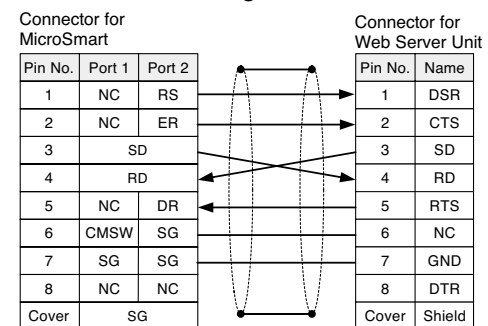
### • Cable Dimensions



## Connectable Devices

- **Programmable Controllers**  
 IDEC FC5A MicroSmart (available soon)  
 IDEC FC4A MicroSmart  
 IDEC FC3A OpenNet Controller
- **Operator Interface**  
 (RS232C communication with PLC through Ethernet)  
 IDEC HG2F  
 IDEC HG2S

### • Cable Connection Diagram



• Ethernet is a registered trademark of Xerox Corporation.