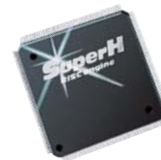


Web Controller

EH-WD10DR

Palm sized All-in-One Controller

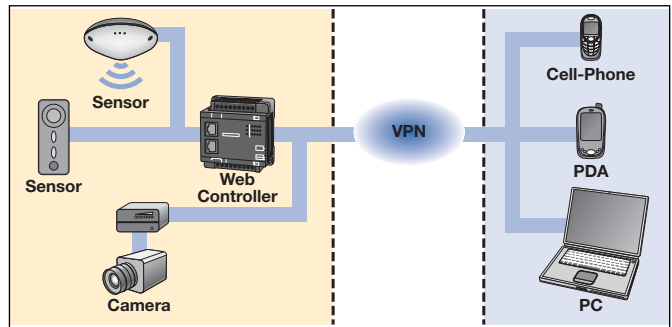
- Embedded Web server
- E-mail sending function
- ASR message communication
- Self created Web pages can be displayed
- Configuration via Web browser
- PLC functionality
- Various serial communication possibilities
- IEC 61131-3 programming
- 32 bit-RISC-processor



Application Examples

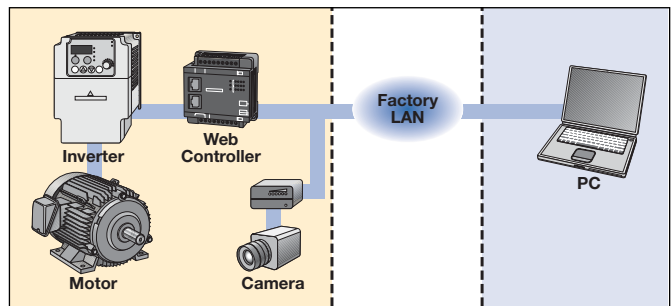
Security

The Web Controller provides a solution for security with a camera and a sensor. When the sensor detects trespassing into the restricted area, the Web Controller instructs a camera to capture a picture and reports to the system administrator.



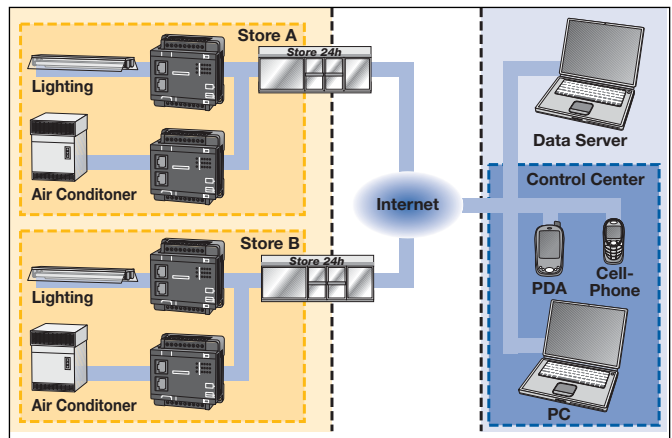
Monitoring and controlling FA equipment

Traditionally special FA networks were prepared and dedicated PC terminals for each network would be necessary, even if just a few points of data were required. By connecting the Web Controller to both a LAN and the equipment, the data can be monitored by any PC connected on that LAN.



Store automation

The Web Controller can be used as a bi-directional controlling system for stores. Status of POS, refrigerators, etc. can be monitored and controlled remotely. All the stores can be supervised by headquarters, and each store can be monitored by the owner remotely.

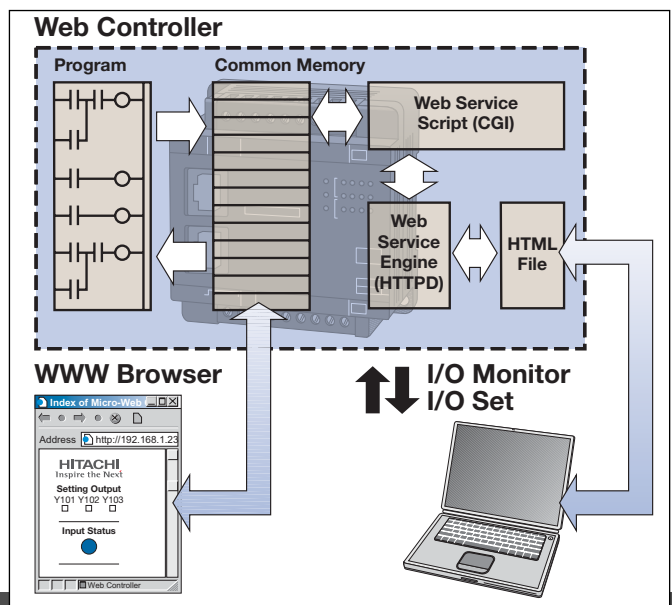


Main Features

The Web Controller is very useful both in an office and the field. Monitoring and controlling have been realized through mobile phones and PDA's. An e-mail can also be sent when an event occurs.

Web Server Function

Data on the Web Controller can be read/written using any PC on a network with an Internet browser. The Web Controller provides a web server functionality using built-in HTTPD ⁽¹⁾ and special CGI ⁽²⁾.



⁽¹⁾ HTTPD: Hyper Text Transfer Protocol Daemon
⁽²⁾ CGI: Common Gateway Interface

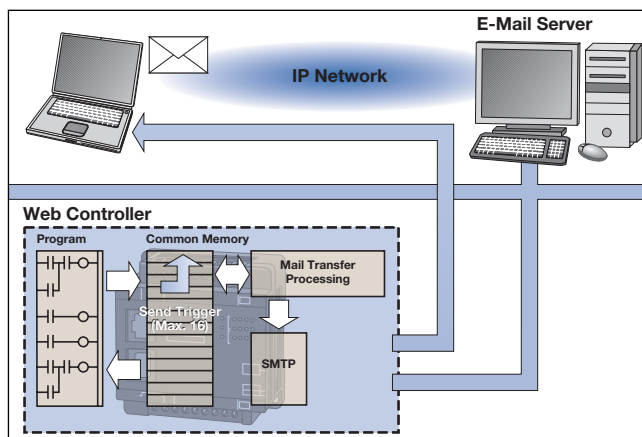
Email Sending Function

The Web Controller can send an e-mail by using the built-in SMTP⁽³⁾.

Up to 16 conditions for sending e-mail can be configured.

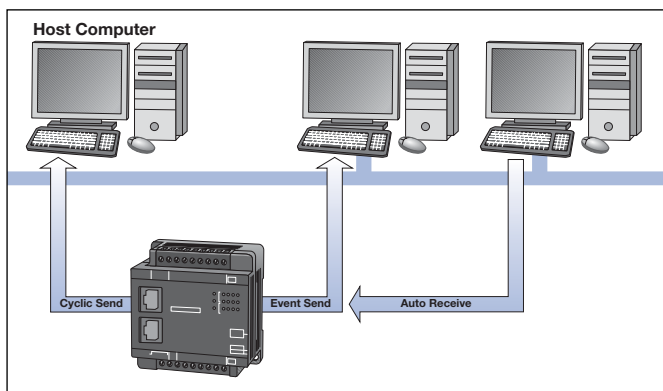
- Max. 8 destination addresses
- Subject, body, data (max. 3 words) can be configured for each condition

⁽³⁾ SMTP: Simple Mail Transfer Protocol



Automatic Data Sending / Receiving Function

Automatic data sending / receiving without user program can be realized once after communication parameters are configured.

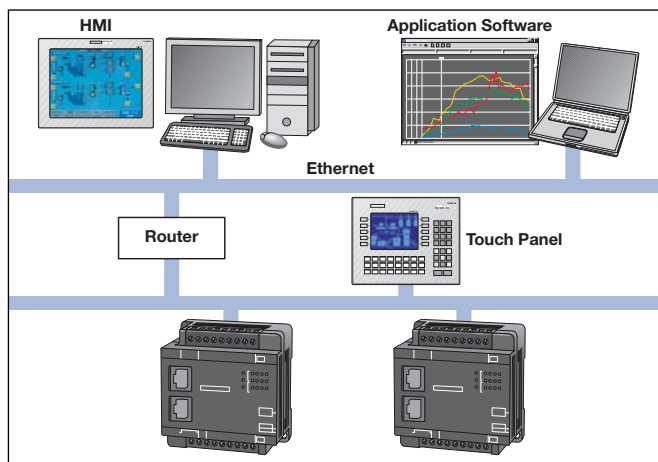


Communication specification

- Connection numbers: Max. 6
- TCP/ IP,UDP/ IP
- Data send: Event /Cyclic
- Send data numbers: Max. 730 words(WR/WM)
- Receive data numbers: Max. 730 words (WR/WM)

Network Communications Function

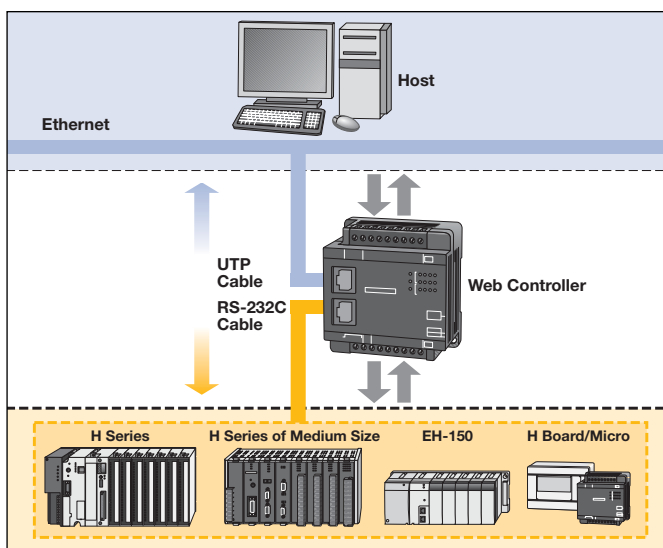
The I/O of the Web Controller can be read/written by any PC through the network. HMI⁽⁴⁾/SCADA⁽⁵⁾ systems supporting the Ethernet protocol of the Hitachi PLC can be used with the Web Controller.



The communication specification

- The number of the connections: Max. 4
 - TCP/IP,UDP/IP
- ⁽⁴⁾ HMI: Human Machine Interface
⁽⁵⁾ SCADA: Supervisory Control And Data Acquisition

Hitachi PLC Network Connection Interface



The RS-232C port of the Web Controller supports the Hitachi PLC protocol, any data in an existing Hitachi PLC can be read and written.

The Web Controller can be a gateway module to an Ethernet network for PLC's without the Ethernet Function.

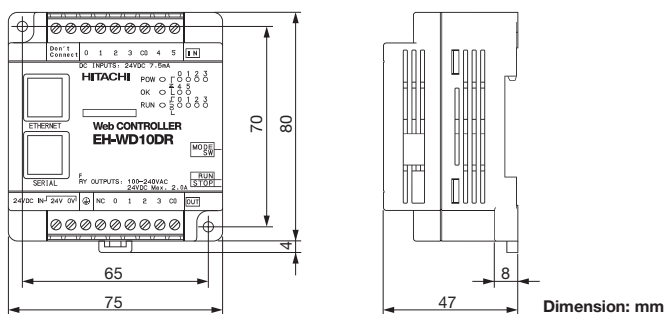
This interface will be useful when...

- 1) Supervising a system through a network is needed, but the following restrictions exist:
 - existing system should not be changed.
 - existing PLC doesn't have any free slot for Ethernet™ module.
 - existing PLC doesn't have any Ethernet™ communication module.
- 2) I/O number and type are out of range of the Web Controller.
 - capability of change to the configuration of an existing system
 - free slot on an existing PLC is available for an Ethernet module
 - availability of an Ethernet communication module for the existing PLC

All features at a glance

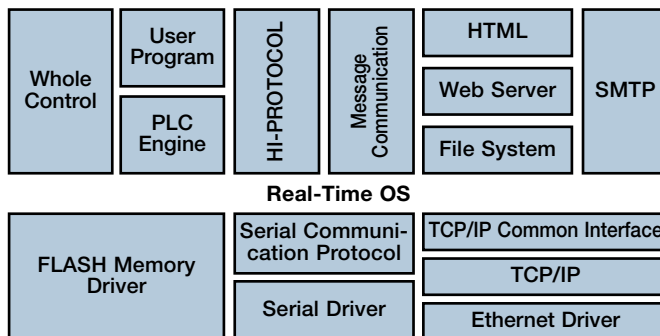
Model		EH-WD10DR		
Power supply voltage		24V DC		
Current consumption		0.15A		
Control	CPU		32 bit-RISC-processor	
	Processing system		Stored program cyclic system	
	Processing speed		Basic instructions: 2.5 µs Application instructions: Several 10 µs"	
	Timer/Counter		256 points (TD+CU)	
	Time data		SNTP (Simple Network Time Protocol)	
Memory	User Program		3k steps maximum	
	Data	Bit	1,984 points (R)	
		Word	16,384 words (WR)	
		Bit/word shared	16,384 points / 1,024 words (M/WM)	
Web page		16kbyte x8, 8kbyte x16, 4kbyte x16		
Input/Output	Digital inputs		24V DC 6 points	
	Digital outputs		Relay 4 points	
	max. number of expansion units		not available	
Communication		Ethernet Serial		
Ethernet communication specifications	Communication protocol		Hitachi PLC Ethernet HiProtocol (Command, Slave) Cyclic/Event sending, Auto receiving	
	E-mail sending	Protocol	SMTP	
		User certification	POP-before-SMTP	
		Sending conditions	up to 16	
		Destination address send text	up to 8 for each condition 256 characters maximum	
	Web server	HTTP version	1.0	
		function	Monitor and set I/O	
	Serial communication specifications	Active-HiProtocol	Protocol	Hitachi PLC HiProtocol (Command, Master)
			Supported PLC	Hitachi H series/Hitachi EH series H-20/28/40/64, H-200/250/252 H-300/700/2000 H-302/702/1002/2002/4010 EH-150, Micro-EH
			Communication speed	auto-detection with matching connected PLC
Data size			Read: Max.120 words, Write:Max.100 words	
Passive-HiProtocol		Protocol	Hitachi PLC HiProtocol (Command, Slave)	
		Connected devices	HMI/products supported Hitachi H/EH PLC	
General Communication		Protocol	Communication by ladder commands (TRNS0/RECV0) TRNS0: only sending, receiving after sending RECV0: only receiving, sending after receiving	
		Communication speed	300 to 57,600bps	
		Data size	Max. 1,024 bytes (each sending and receiving)	
		Mounting	DIN rail or wall mounting	

EH-WD10DR Dimensions



Software Structure

Newly developed "Sporadic Server Method" allows the Web Controller to switch between the Ethernet communication process and the PLC engine process, without losing data integrity.



Hitachi Europe GmbH

Am Seestern 18 · D-40547 Düsseldorf
 Tel. +49-211-52 83 -0 · Fax +49-211-52 83 -649
 Internet: www.hitachi-ds.com
 E-Mail: info@hitachi-ds.com