CONTEC

F&eIT Catalog 2005

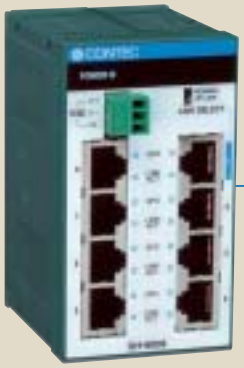
F&eIT®

[Factory and enterprise IT]

CONTEC brings three decades of experience in data acquisition and industrial automation to the field of web-based monitor and control

Distributed Monitoring & Control Network

Innovation in Automation



Effortless

Seamless Integration

From Factory Floor to Enterprise Information

Micro-component Distributed I/O by CONTEC

www.contec.com

F&eIT®

F&eIT provides you with an ideal environment for automation systems.

F&eIT, CONTEC's premier automation solution, integrates industrial computers and instrumentation/control with network development technologies.
F&eIT provides you with an ideal automation system for all areas of industry – all the way to corporate offices.

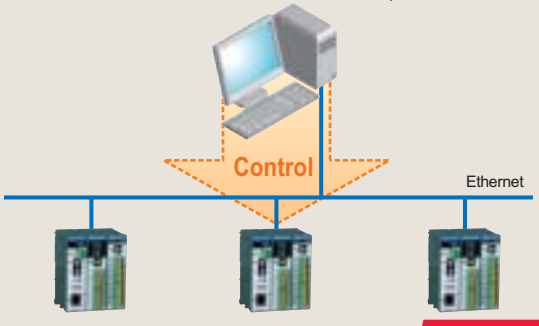
1 The simplest and Most Compact Solution for On-site Computers

This ultra-compact [94mm (h) x 64.7mm (d)] Micro Controller delivers the functions of a full size PC and runs on familiar operating systems including Windows®, Linux and DOS.

[Micro Controllers] P.4/5

2 Allows Central Monitoring and Control of Remote Devices

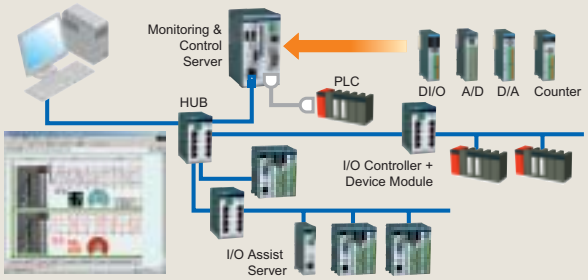
By incorporating Ethernet and USB into the system's infrastructure, you can easily configure a lead-free Remote I/O system that can then be monitored and controlled from a central computer.



[I/O Controller] P.6

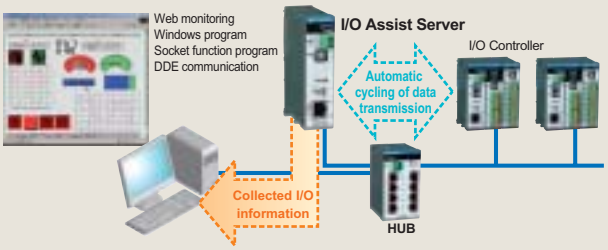
3 Easily Configured Remote Monitoring & Control

You can develop a multi-function remote monitoring system that can monitor, update and log I/O information, perform task control and send alarms via e-mail.
This system can be completely developed and implemented on a web browser.



[Monitoring & Control Servers] P.8/9

You can develop a remote monitoring system for easy updating of I/O information over a web browser.
It can also be used for the supervision of multiple remote I/O systems.



[I/O Assist Servers] P.7

"F&eIT Protocol"

Reliable high-speed, real-time functionality

Experience the Triple Advantage of Contec's unique communication protocol High speed, Real-time operation and Reliability.

Open Architecture

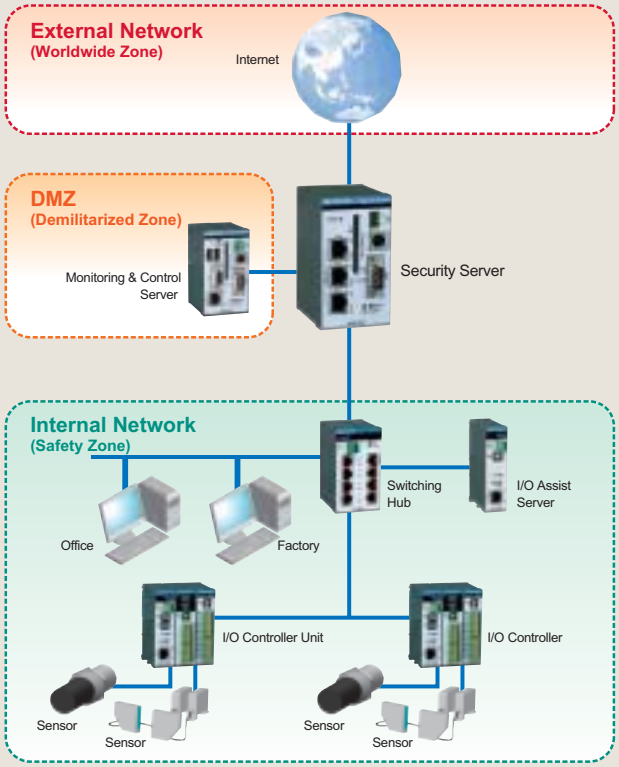
All F&eIT units can be be operated under Windows® or other familiar operating systems. Device modules can be user programmed.

Stable Cyclic Time

CONTEC's high-speed switching technology solves the problems of data bottlenecks and delays common with Ethernet communication. These modules deliver high-speed communication along with stable cyclic time.

4 Visual Segmentation of Industrial LAN / Internet Access

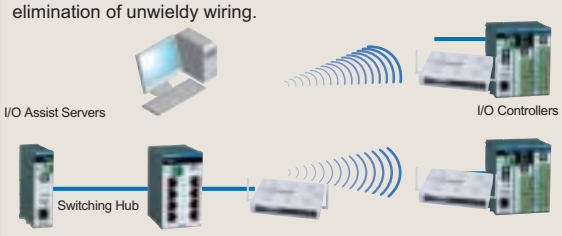
An ultra-compact and lightweight firewall router enables virtual segmentation of F&eIT Series and industrial systems (including PLCs) while allowing Internet access.



[Security Servers] P.9

5 Wireless networks deliver greater freedom

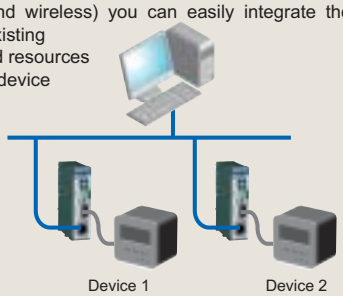
Wireless networking is now possible using IEEE802.11a/b/g-compliant micro access points. Increased potential of F&eIT is realized with the addition of mobile communications and the elimination of unwieldy wiring.



[Micro access points] [Switching hubs] P.11

6 Ethernet integration of existing resources

By converting existing communication interfaces into ethernet (both wired and wireless) you can easily integrate the communications from existing industrial equipment and resources with those of the F&eIT device modules.



[Media Converters] P.10

Ultra-compact General-Purpose Computer for Embedded Use

Micro Controllers

Ultra-compact, General-Purpose PC. Windows®, PC DOS 2000, and Linux supported.

Actual size
94 mm (H) x 64.7 mm (D)

CPU-SB20/128(FIT)GY.

This fan-less micro computer is built on an x86-compatible, power-saving CPU. As a micro embedded controller it supports a wide range of applications and can run under a variety of operating systems including Windows®, IBM PC DOS 2000 and Linux[1]. Using the stacking connectors, device modules can be used to expand functionality.

Micro Controllers

Windows XP Embedded pre-installed Geode SC2200 266 MHz CPU 256 MB memory	CPU-SB21/256(FIT)GY	CE
Geode SC2200 266MHz CPU[2] 256 MB memory	CPU-SB20/256(FIT)GY[2]	CE
Geode SC2200 266MHz CPU[2] 128 MB memory model	CPU-SB20/128(FIT)GY	CE
MachZ 120MHz CPU 128 MB memory model	CPU-SB10/128(FIT)GY	CE

Windows® XP Embedded pre-installed model [CPU-SB21/256(FIT)GY]

Windows® XP Embedded (CONTEC Custom specifications[3]) based on CPU-SB20/256(FIT)GY pre-installed. A disk-less Windows-based system can then be easily configured.

- **DTK-SB20(FIT)GY [Micro Controller Unit Development Kit] not required**
  Since the operating system is pre-installed, you eliminate the trouble and expense of having to use the Development Kit to install the OS and drivers.
- **Enhanced Write Filter function installed. Secure design allows Power Off at any time**
  Writing control via the Enhanced Write Filter ("EWF") and support of No Page File eliminates the need for shutdown processing when turning the power OFF. The result is a stable system that eliminates concern for file system damage.
- **Win32 API and Windows® XP applications fully supported.**
  Like Windows® XP Professional, Windows® XP Embedded is a binary configured OS, and fully supports Win32 API. Windows® XP-supported application resources can be fully accessed by using a program such as VisualStudio for development.

[3] **Windows XP Embedded Custom configuration (For details on individual application customization, contact your local CONTEC office.)**

Storage device	: 512 MB Compact Flash
C drive (OS area: FAT32)	: OS use: 339 MB, free space: 607 MB, EWF setting OFF (ON during unit operation)
D drive (data area: FAT32)	: Free space: 84.9 MB, EWF setting OFF
EWF area	: 3MB

● For details, see our Web site.

1 Using the Geode SC 2200 driver supplied by AMD Inc. (http://www.amd.com).
2 When building a Windows XP or Windows 2000 SP3/SP4 environment on CPU-SB20/xx (FIT)GY, you can install the operating system without using DTK-SB20(FIT)GY by using a third-party USB CD-ROM and FD drive. You can also install other operating systems if the USB CD-ROM drive is supported with the startup disk.

Power Supply optional. *[Power Supplies]* **P.15**

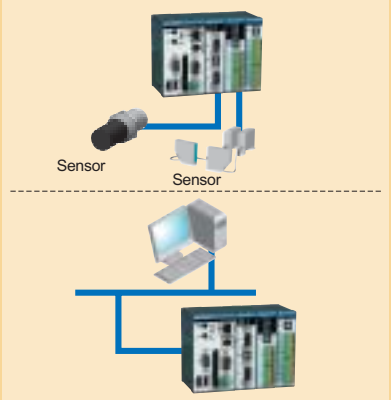
Application Example 1

In confined areas with limited power

The unit can fit into spaces too small for standard PCs. In addition, using CONTEC's wireless LAN Micro Access Point allows you to embed this unit in mobile hardware or areas where wiring would be difficult.
Since the micro controller runs on 5VDC it is ideal for areas with limited power.

Application Example 2

As a compact controller for I/O control systems

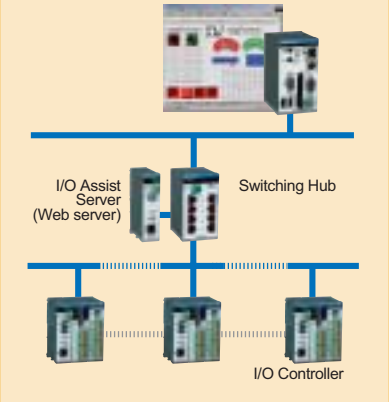


Through the use of the Device Module, these can be used as compact controllers supporting a variety of I/O or as a programmable ethernet-based remote I/O system.

[Device Modules] **P.12/15**

Application Example 3

Web monitoring system terminal



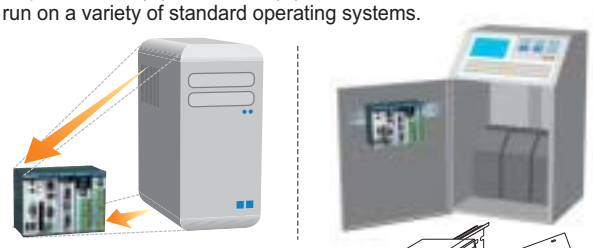
The micro-controller can serve as a compact web monitoring terminal (client PC) for Servers using a web server function.

[I/O Assist Server] **P.7**

[Monitoring & Control Server] **P.8**

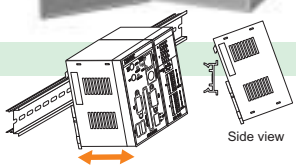
Compact Space-saving Design

The functionality and expandability of a standard PC are all contained in a compact 94 mm (H) x 64.7 mm (D) module. This micro controller can be run on a variety of standard operating systems.



Installation on DIN rail

One-touch operation for easy installation and removal



Easily Maintained / Industrially Sound

This disk-free, fanless micro computer can be mounted on a 35mm DIN rail. It features a watchdog timer - essential for monitoring the health of industrial systems. All connections (excluding F&eIT bus) are located on the front side of the unit for ease of use.

Outstanding Functions

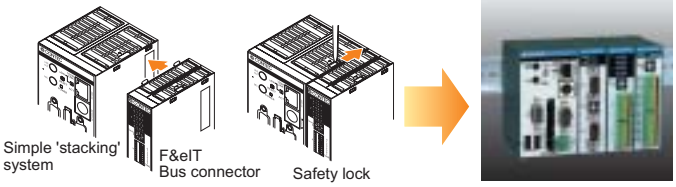
- The compact flash (or micro drive) is bootable and recognized as the C drive allowing standard computer operating systems and programming languages to be supported.
- I/O interfaces are expanded by connecting one of a wide range of device modules. Its unique interconnection mechanism allows device modules to be 'stacked' side-by-side so that additional interface components, such as backplanes, are not needed.
- 2 USB ports can be used for external CD-ROM, FDD, HDD, keyboard or other USB supported device.

Item		Specifications		
		CPU-SB20/128(FIT)GY	CPU-SB20/256(FIT)GY CPU-SB21/256(FIT)GY	CPU-SB10/128(FIT)GY
CPU		Geode SC2200 266MHz		MachZ 120MHz
Memory		128Mbyte	256Mbyte	128Mbyte
Video	Controller	Integrated in CPU chip		69000(Chips & Technologies)
	VRAM	4 Mbyte or equivalent		2Mbyte
	CRT Interface	15-pin HD-sub connector 640 x 480/800 x 600 (65,536 colors), 1024 x 768 (65,536 colors), 1280 x 1024 (256 colors)		15-pin HD-sub connector 640 x 480/800 x 600 (16,770,000 colors), 1024 x 768 (65,536 colors), 1280 x 1024 (256 colors)
Standard interface		Serial, 100BASE-TX/10BASE-T, Audio (line output, mic input), 2 x USB, keyboard, mouse, F&eIT bus		Serial, 100BASE-TX/10BASE-T, USB x 2, keyboard, mouse, F&eIT bus
Watchdog timer		16,666 sec (max.), programmable (reset or output to IRQ according to time-up)		2 sec (max.), programmable (reset or output to NMI according to time-up)
Compact Flash Slot[1]		TYPE I or TYPE II x 1 (for micro drive)		Type I x 1
RTC/CMOS		Lithium cell backup Battery life: 6 years or more (at 25ºC)[2] Precision of real-time clock: within error of 3 minutes per month		Lithium cell backup Battery life: 10 years or more (at 25ºC)[2] Precision of real-time clock: within error of 3 minutes per month
Supported Operating Systems		IBM PC DOS 2000 Ver.7.0J, Microsoft Windows® 98 SE, Microsoft Windows® Me, Microsoft Windows® 2000, Microsoft Windows® XP Embedded, Linux 2.4 kernel		IBM PC DOS 2000 Ver.7.0J, Microsoft Windows® 95 OSR2, Microsoft Windows® 98, Microsoft Windows® 98SE, Microsoft Windows® NT Workstation 4.0, Microsoft Windows® NT Embedded 4.0, Linux 2.2 kernel
Power Consumption		5 VDC (±5%) 1.5 A (max.)		
Dimensions (mm)		52.4 (W) x 64.7 (D) x 94.0 (H) (excluding protrusions)		
Weight		300g		180g

Condition		Requirement
Environmental Specs	Operating Temperature	0 to 50ºC
	Storage Temperature	- 10 to 60ºC
	Operating humidity	10 to 90% RH (no condensation)
	Airborne Dust Particles	Must not be excessive.
	Corrosive Gas	Not allowed
	Noise Resistance / Line Noise**	AC line/2 kV, signal line/1 kV (IEC1000-4-4Level 3, EN61000-4-4Level 3)
	Ground	D type (former Class 3)

1 512 MB Compact Flash provided with the CPU-SB21/256(FIT)GY.
2 Please return discharged battery to CONTEC for replacement.
3 Basic operating system functions and use of the VGA & LAN drivers have been confirmed.
Not all functions, however, have been confirmed. For updated information, visit our web site.
➡ http://www.contec.com
** When POW-AD22GY is used

Interconnection of Device Modules



Software

• Windows device module access library API-SBP(W32) (provided with CPU-SB21/256(FIT)GY, DTK-SB20(FIT)GY)

The API-SBP(W32) drivers provide commands for stacked Device Modules in Windows-standard Win32API(DLL) format. Programs can be developed in various programming languages that support Win32API (e.g. Visual Basic and Visual C++) .

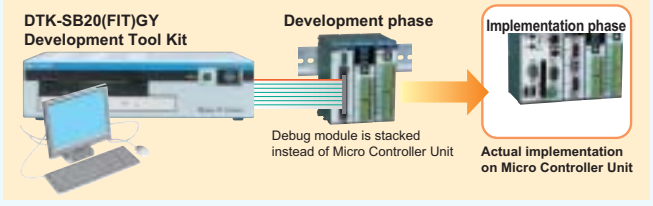
- Digital & analog I/O, counters, and GPIB communication device modules are supported
- Compatible with driver library API-PAC(W32) developed for CONTEC interface modules

Latest driver versions can be downloaded free from CONTEC's Web site

[Bundled Software] P.17

Micro Controller Unit Development Kit

For CPU-SB20(FIT)GY **DTK-SB20(FIT)GY**



- FDD, HDD and CD-ROM are standard features with the development kit, useful in the customization of operating systems that are not supported on the CPU-SB20(FIT)GY as a standalone unit.
- Device modules can be connected.
- Built-in AC power supply allows standard 100 VAC power to be utilized.
- A low power consumption CPU is used. Natural air-cooling enables fanless operation.
- Windows device module access library API-SBP(W32) included

Main unit

Item		Specifications
Standard Interface		Serial, 100BASE-TX/10BASE-T, Audio (line output, mic input), USB x 2, keyboard, mouse
Compact Flash Slot		TYPE I or TYPE II x 1 (for micro drive)
Floppy Disk Drive		3.5" FDD (2 Mode) x 1
Hard Disk Drive		6 GB
CD-ROM Drive		24X speed
Power Supply	Input Voltage	100 to 240 VAC
	Consumption (max)	20 VA
Dimensions (mm)		220 (W) x 255 (D) x 55 (H)
Weight		2.7 kg

* Basic specifications (e.g. CPU, memory, video, watchdog timer) are the same as CPU-SB20/128(FIT)GY.

Debug Modules

Item	Specifications
Power Consumption	5V DC ± 5% 300 mA
Dimensions (mm)	25.2 (W) x 64.7 (D) x 94.0 (H) (excluding protrusions)

Application Development Procedure

1 Install the operating system on the Micro Controller Unit Development Kit.
2 Install the development environment, API-SBP(W32) and other necessary components.
3 Develop the program using the development environment and debug module.
4 Compile the completed program, copy it onto the Compact Flash, and transfer it to the controller module.

* Operating system and compact flash are not provided with this product. Additional items required for development such as Compact Flash, operating system, software and any licenses must be purchased optionally.

Ethernet / USB-based Remote I/O System

I/O Controllers

Integrated CPU and firmware. Remote I/O easily controlled from your PC

CPU-CA20 (FIT) GY.

Installation on DIN rail

[Device Modules] P.12/13

This ethernet-based remote I/O system is configured by interconnecting I/O device modules onto an ultra-compact Controller Module. This system can be used in a wide-range of applications and controlled using a PC or in coordination with an F&eIT Server.

Fan-less, Compact Design

Utilizing a low-heat generating CPU, these fanless I/O Controllers run on minimal power. Their compact design (94 mm x 64.7 mm) requires little installation space.

DDE Communication with Excel and SCADA (HMI) Software

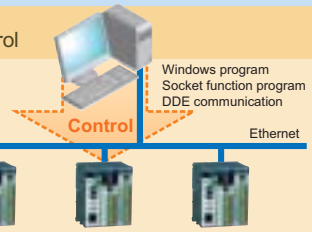
DDE and SuiteLink server FIT-SVR(W32) (included with controllers) enable communication to be controlled by software that supports DDE client functions such as Microsoft® Excel or Wonderware InTouch®.

Computer-based Remote Control

The Windows® drivers that are provided enable remote control of the I/O on a networked machine running in a Windows® environment. The I/O can be controlled in a non-Windows environment through the use of the socket functions.

Configuration Example 1

■ Computer-based Control



When multiple I/O Controllers are used, it is recommend that you use the I/O Assist Server Unit [SVR-IOA(FIT)GY] gathering information.

[I/O Assist Server] P.7

Configuration Example 2

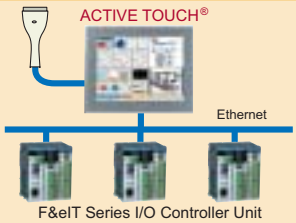
■ Program-less remote monitoring and control

A remote monitoring and control system can be design without the aid of a program by using the Monitoring & Control Server Unit [SVR-MMF(FIT)GY].

[Monitoring & Control Server] P.8/9

Configuration Example 3

■ Remote I/O Control via ACTIVE TOUCH®



You can use CONTEC's ACTIVE TOUCH®, HMI Programmable Display, as a control terminal for Ethernet-based remote I/O systems. In addition to monitoring the status of permanently installed remote I/O systems, user interface functions can easily be added on.

I/O Controller Module

CPU-CA20(FIT)GY CE NEW
High-speed / advanced-functions

CPU-CA10(FIT)GY CE

NEW: CPU-CA20(FIT)GY High-speed / advanced-functions

■ **3 times faster than the previous model [CPU-CA10(FIT)GY]**
The CPU-CA20(FIT)GY uses an SH4 240 MHz CPU and supports 100 Mbps (100 BASE-TX) ethernet, ensuring faster I/O and communication processing. Achieves higher speed communication with a response time that is roughly 1/3 (1.5 msec to 0.5 msec)* that of the previous model.
* Variations due to operating environment

■ **Increased number of units can interconnect in same network**
In the standalone startup mode (w/out I/O Assist Server Unit), up to 128 units can be installed on the same network.

Power Supplies optional.

[Power Supplies] P.15

Bundled software (CD-ROM)

- Windows® device module access library
  API - CAP(W32)[CD - ROM]

[Bundled Software] P.17

- DDE, SuiteLink Server
  FIT-SVR(W32)
  Supported OS: Windows® XP/2000/NT40 (SP5 or later)/Me/98
- Utility software
  For setting up nodes and updating firmware
  Supported OS: Windows® XP/2000/NT40 (SP3 or later)/Me/98

Item	Specifications	
	CPU-CA20(FIT)GY	CPU-CA10(FIT)GY
CPU	SH4 240MHz	SH3 60MHz
Memory	Flash ROM:4Mbyte(32Mbit) SDRAM:32Mbyte(256Mbit)	Flash ROM:512Kbyte(4Mbit) EDO DRAM:2Mbyte(16Mbit)
Interface (to host)	100BASE-TX / 10BASE-T	10BASE-T(IEEE802.3)
Connectable Device Modules	Max. 8 modules[1] [2]	
Power Voltage	5VDC ±5% 2-piece power input connector (removable) located on the front Use of F&eIT Series dedicated power supply or third-party stabilizing power supply is recommended	
Power Consumption	0.7A(Max.)	0.5A(Max.)
FG Terminal	Power input connector is equipped with FG terminal	
Operating Temperature/Humidity	0 to 50°C, 10 to 90% RH ((no condensation)	
Dimensions (mm)	25.2 (w) x 64.7 (d) x 94.0 (h) (1" x 2.54" x 3.7")	
Weight	100g (3.52oz)	

1 The total maximum power consumption by each module can not exceed the rated output current of the power supply unit.
2 The stack connector supplies the power to each device module. Supplied power can not exceed the permissable current of a stack connector (max 3.0A)

USB-based Controllers also available

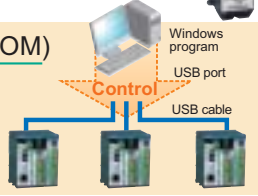
USB-based I/O Controller Module

CPU-CA10(USB)GY CE

Use of this module allows a USB connection to configure a host computer controlled remote I/O system. Like the ethernet-based CPU-CA10(FIT)GY, there is an extensive range of interconnectable device modules to work with.

Bundled software(CD-ROM)

Windows driver library
API-USBP (WDM)
Windows-standard Win32 API(DLL) format software drivers are included.
These are compatible with CONTEC PCI bus boards and PC cards at the API level



Integrated management of I/O Controller Units & Web monitoring

I/O Assist Server

Provides integration and cyclic monitoring of I/O Controller Units on a web browser

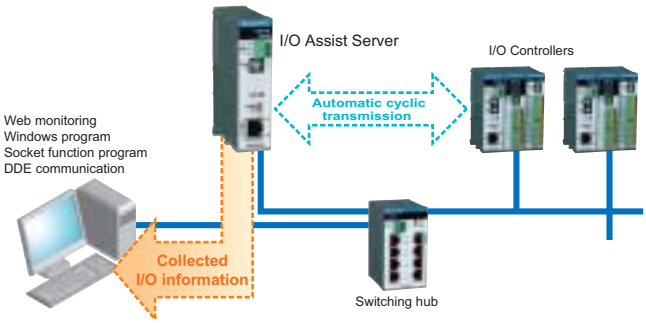
SVR-IOA2 (FIT) GY.

Installation on DIN rail

This Server Unit remotely monitors and updates I/O information on a Web browser. It also collects I/O information by cyclically accessing Web servers and I/O Controller Units. Because of its simple design, development and implementation can be easily performed entirely on a Web browser.

Management of I/O Controller

This server automatically and cyclically accesses up to eight I/O Controllers collecting I/O information. It then supplies the information to the host in a single communication reducing line load.



DDE Communication with Excel and SCADA (HMI) Software

DDE and SuiteLink server FIT-SVR(W32) (included with controllers) enable communication to be controlled by software that supports DDE client functions such as Microsoft® Excel or Wonderware InTouch®.

Bundled software (CD-ROM)

- Windows® device module access library API - CAP(W32)[CD - ROM]
  [Bundled Software] P.17
- DDE, SuiteLink Server FIT-SVR(W32)
  Supported OS: Windows® XP/2000/NT40 (SP5 or later)/Me/98
- Utility software
  For setting up nodes and updating firmware

Item	Specifications	
	SVR-IOA2(FIT)GY	SVR-IOA(FIT)GY
CPU	SH4 240MHz	SH3 100MHz
Memory	Flash ROM:4Mbyte(32Mbit) SDRAM:32Mbyte(256Mbit)	Flash ROM:1Mbyte(8Mbit) EDO DRAM:2Mbyte(16Mbit)
Interface (to host)	100BASE-TX / 10BASE-T I/F	100BASE-TX / 10BASE-T I/F
Power Voltage	5VDC±5% 2-piece power input connector (removable) located on the front Use of F&eIT Series dedicated power supplies or third-party stabilizing power supply recommended	
Power Consumption	0.7A(Max.)	0.5A(Max.)
FG Terminal	FG terminal equipped for the power input connector	
Operating Temperature/Humidity	0 to 50ºC, 10 to 90% RH (no condensation)	
Dimensions (mm)	25.2 (W) x 64.7 (D) x 94.0 (H) (excluding protrusions)	
Weight	100g	

I/O Assist Server Unit

SVR-IOA2(FIT)GY CE NEW
High-speed / advanced-functions

SVR-IOA(FIT)GY CE

New : SVR-IOA2(FIT)GY High-speed / advanced-functions

2 times faster than the previous model [SVR-IOA(FIT)GY]
I/O and communication speed has been increased with the use of the SH4 240 MHz CPU.* NOTE: The communication speed is roughly halved when used with the I/O Controller Module [CPU-CA20(FIT)GY].

* Varies according to operating environment.

Easier-to-manage web monitoring functions
Web monitoring pages have been enhanced.
Frames are now used for easier handling and viewing.

Power Supply Optional. [Power Supplies] P.15

Programless Web Monitoring

Provided with a Web server (Java applet) function, this unit assists with monitoring and updating I/O information from remote sites using a web browser.
GUI components such as graphs, sliders and buttons (standard features) are user configurable on the viewing screen.
All aspects of set-up can be completed via web browser - from design to implementation, from screen configuration to the linking of I/O information.

(1) Select GUI components from "Item" and place them in the screen.
(2) Select "Property" under "Operation"and enter the target information for each GUI component.
(3) Update data at fixed intervals.

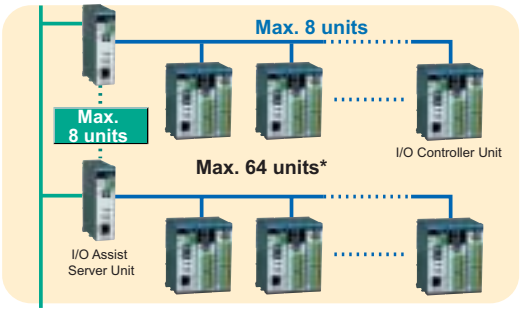
Place other GUI components (e.g. Text, Meter, Graph, Tchart, FillBox, Slider, Switch, Seg7, Volume, Status) as necessary and set the parameters.

Monitoring & Control Server, SVR-MMF(FIT)GY, with advanced functions is also available. In addition to Web monitoring, this model can achieve complete remote monitoring and control with arithmetic operations on input data, data output according to conditional branches, alarm notification by e-mail, logging and other features.

[Monitoring & Control Server] P.8/9

Number of Units that can be installed

The SVR-IOAx(FIT)GY can coordinate and manage up to eight CPU-CAx(FIT)GYs. Up to eight SVR-IOAx(FIT)GYs can also be installed within the same IP segment allowing a total of 64 CPU-CAx(FIT)GYs in the same installation.



* Number of installed CPU-CAx(FIT)GYs when eight SVR-IOAx(FIT)GYs are installed

Remote monitoring and control - No programming needed

Monitoring & Control Server

Intelligent and multi-function. All processes can be managed on a web browser.

Installation on DIN track

This intelligent Server Unit is provided with multiple functions including a Web server that can remotely monitor and update I/O information as well as task scripting, logging and e-mail transmission. Simplicity of design enables development and implementation to be easily performed on a web browser.

Monitoring & Control Server

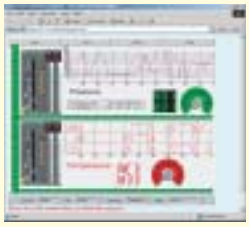
SVR-MMF(FIT)GY CE

Ver. 2.20

Power Supplies Optional [Power Supplies] P.15

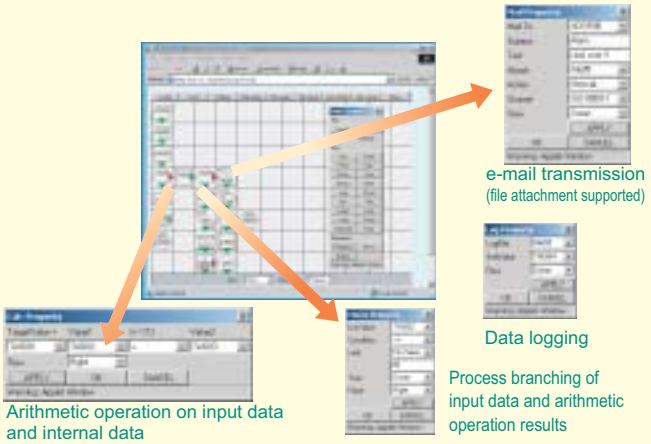
Web Monitoring

Preloaded with a Web server (Java applet) function, the SVR-MMF (FIT)GY enables monitoring and updating of I/O information from remote sites using a web browser.
GUI components (such as graphs, sliders and buttons) and imported image data can be user formatted on the display. All aspects of setup, from screen configuration to linking with the I/O information can be completed using a web browser.



Web Task Script

By combining such tasks as arithmetic operation, conditional branches, data output, e-mail transmission and data logging, execution processes and tasks can be set up much like a flowchart. All steps can be completed using a Web browser.



Wide Range of Supported Devices

- Up to eight device modules can be stacked.
- I/O Controllers and I/O Assist Servers can be linked over the network.
- Can be linked[1] to PLCs on the network or connected by the RS-232C serial interface.

[1] Supported on firmware Ver. 2.00 onwards
The latest version of the firmware can be downloaded free of charge from CONTEC's Web site.
▶ **http://www.contec.com**

e-mail transmission (supports file attachment)

The e-mail transmission function allows alarm information or stored files to be sent to the administrator.

PPP Server Dial-up Connection

Maintenance and data transfer can be done over a phone line from an external host by utilizing the PPP server function.
The PPP server function allows this unit to access the internet over phone line.

SNMP Agent

Integrated management using CONTEC's SNMPc or other network management software is enabled throught the SNMP Agent.

Item		Specifications
CPU		MachZ(ZF Micro Devices)
Memory	L2 Cache	512KByte
	Main	64MByte
Video	Controller	69000 (Chips & Technologies)
	VRAM	2MByte
	CRT Interface	15-pin HD-sub connector 640 x 480/800 x 600 (16,770,000 colors), 1024 x 768 (65,536 colors) 1280 x 1024 (256 colors)
Standard Interface		USB (not supported) x 2, serial x 1, keyboard, mouse, F&eIT Bus
Watchdog Timer Function		2 sec (max.) (reset or output to NMI according to time-up)
Compact Flash Slot		Type I x 1
RTC/CMOS		Lithium cell backup life: 10 years or more (at 25ºC)*2 Precision of real-time clock: within error of 3 minutes per month
Power Consumption		5VDC±5%,1.5A(Max.)
Dimensions (mm)		52.4 (W) x 64.7 (D) x 94.0 (H) (excluding protrusions)
Weight		180g

*2 Please send back the cell for replacement.

	Condition		
Environmental Specifications	Operating Temperature		0º to 50ºC
	Storage Temperature		-10º to 60ºC
	Operating humidity		10 to 90% RH (no condensation)
	Airborne Dust Particles		Must not be excessive.
	Corrosive Gas		Not allowed
	Noise Resistance	Line Noise	AC line/2 kV, signal line/1 kV (IEC1000-4-4Level 3, EN61000-4-4Level 3)
	Ground		D type (former Class 3)

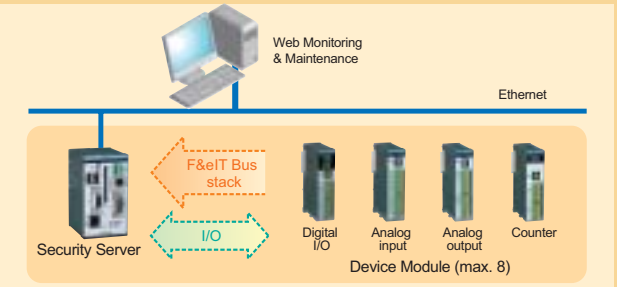
Supported PLCs

MITSUBISHI general-purpose PLCs
- MELSEC-Q Series
- MELSEC-A Series
- MELSEC-QnA Series

OMRON programmable controllers
- SYSMAC-CS Series
- SYSMAC-CJ Series

Configuration Example 1

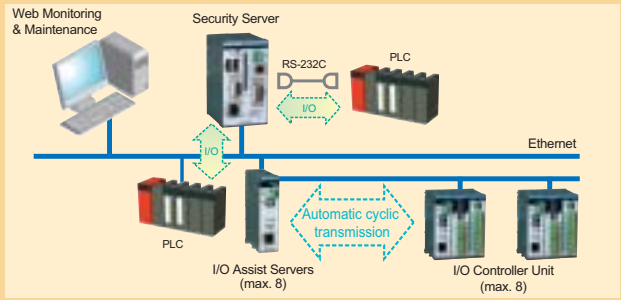
■ Device Modules connected with main unit



[Device Modules] P. 12/15

Configuration Example 2

■ Coordination with I/O Controller and PLCs



[I/O Controller Unit] P. 6 [I/O Assist Server Unit] P. 7

Ultra-compact, Lightweight Firewall Router for Embedded Use

Security Server

Prevents unauthorized access. Ensures network security while communicating via the Internet.

DIN rail installation

This ultra-compact and lightweight firewall router, designed for embedded use, prevents illegal offsite access. This router is suited for use not only with the F&eIT Series but also to provide virtual segmentation of PLCs and other industrial equipment or to provide Internet access to your network.

Security Server

SVR-SEC(FIT)GY CE

Power Supplies Optional. [Power Supplies] P. 15

Firewall Function

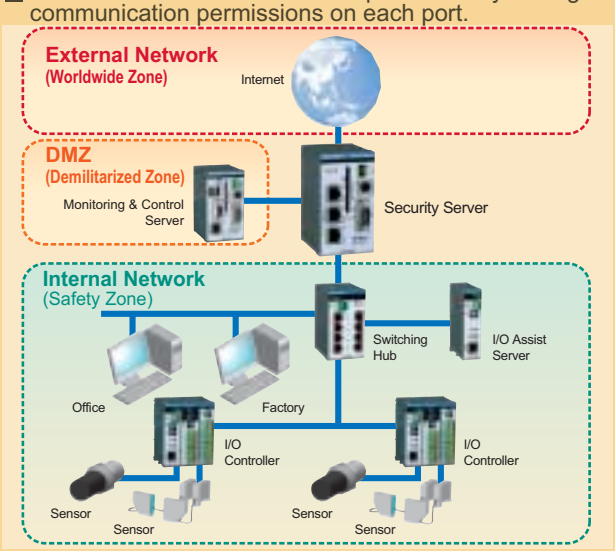
Security Server prevents unauthorized outside access.

Port Forward Function

By dividing up the host that performs data transmission according to individual applications, concentrated communication loads can be distributed as needed.

Configuration Example

■ Unauthorized outside access is prevented by setting communication permissions on each port.



NAT (Address Translation) Function

The Security Server is provided with a port address translation function for translating private addresses into a single public address to ensure protection from illegal accessing.

Simple Setting

Various security settings can be set up easily on a Web browser.

Item		Specifications
Interface	Ethernet Port (WAN ,LAN1 ,LAN2)	100BASE-TX/10BASE-T RJ-45 connector x 3
	Serial Port (PPP)	RS-232C 9-pin D-sub connector x 1
Internet Connection Function		Ethernet port (DHCP or fixed IP), dial-up (serial port)
NAT Filter Function		Designated phase, IP address/mask, protocol, port number and interface.
Port Forward Function		Designate IP address, protocol, and port number.
Administrative Functions		DHCP client (WAN side), DHCP server (LAN side), PPP server (serial port), SNMP agent, backup/restore of configuration information
Routing Function		Internal network, external network, routing of DMZ
Prevention of Unauthorized Operation		Management by user name and password
Monitoring Function		Refer to logs on Web browser.
VPN Function		None
Number of Accessible Local PCs		Unlimited
Max. Number of Simultaneous Sessions		Max. 9000
Supported Protocol		TCP-IP/UDP-IP (protocol can be registered)
Dimensions (mm)		52.4 (W) x 64.7 (D) x 94.0 (H) (excluding protrusions)
Power Consumption		5VDC ±5% 1.5A
Weight		200g

	Condition		Requirement
Environment Specifications	Operating Temperature		0° to 50°C
	Storage Temperature		-10° to 60°C
	Operating humidity		10 to 90% RH (no condensation)
	Airborne Dust Particles		Must not be excessive.
	Corrosive Gas		Not allowed
	Noise Resistance	Line Noise	AC line/2 kV, signal line/1 kV (IEC1000-4-4Level 3,EN61000-4-4Level 3)
	Ground		D type (former Class 3)

Freeing You from Cable Length Restrictions

Media Converter Series

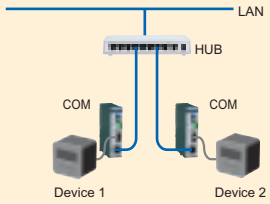
Easily extend communication distance and configure wireless networks

RS-232 / RS-422 Serial Communication Media Converters

- RS-232 / RS-422 serial communication protocol is converted to Ethernet or wireless LAN.
- Choice of three operation modes to suit your specific needs.

Replacing a Serial Cable Connection - Transparent Mode

In this mode, data from connected devices is transferred as is, without any changes. You can replace serial cables with Ethernet without changing communication software settings. Up to 254 units can be installed on the same line.



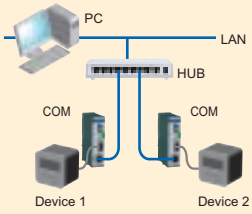
You can switch over to long-distance communication without changing the device setup or the software!

Add a COM port on your PC - Virtual COM Mode

Windows® XP Windows® 2000 Windows® Me/98

In this mode, the unit is used as a COM port in a Windows® PC. Via Ethernet, you can operate a remote device as if it were right next to you. Access by socket communication is also supported.

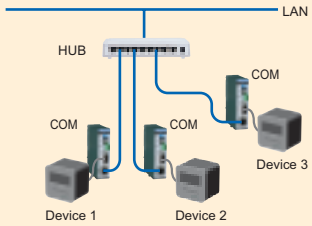
■ When using Windows 98/98SE/Me, up to four ports (COM 3 to 8) can be used at the same time. On Windows XP/2000, up to ten ports (numbers following existing ports) can be used at the same time.



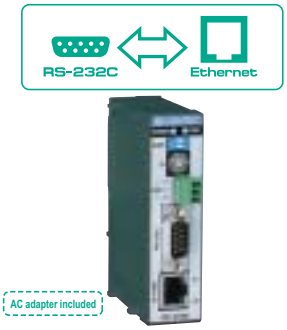
Remote control via Ethernet is achieved by commands to COM ports!

N-to-N Packet Communication Using Dedicated Commands - Modem Mode

This mode is used for creating communication programs and conducting packet communications using dedicated commands. You can conduct communications to multiple units (N-to-N) by appending packets with the device ID. 254 units can be installed on the same line.

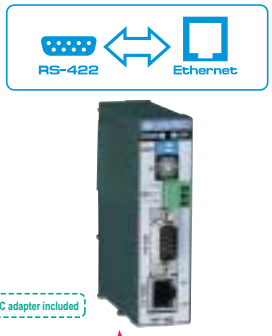


RP-COM(FIT)GY CE



AC adapter included

RP-422(FIT)GY CE



AC adapter included

While stocks last

FX-DS110-COM CE

AC adapter included

While stocks last

FX-DS110-422

AC adapter included

** For use in a DC power environment, use the DC-DC Power Supply (sold separately).*

[Power Supplies] P. 15

GPIB Communication Media Converter

RP-GPIB(FIT)GY CE

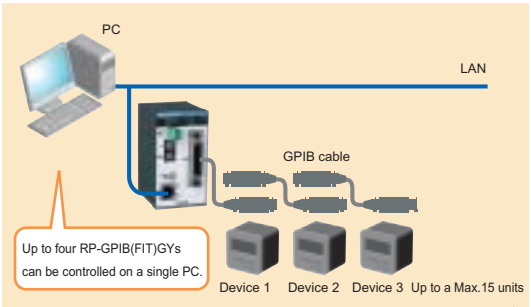
NEW

- GPIB communication protocol is converted to Ethernet.
- GPIB communication devices can be remote-controlled on a Windows® PC over Ethernet.
- Unconstrained by GPIB standards, communication can be extended up to the maximum length allowed on Ethernet.

Bundled software (CD-ROM)

- Windows® driver API-RPGPIB(W32)
  Driver software provided in Windows-standard Win32 API(DLL) format.
  Supported Operating Systems:
  Windows XP/2000/Me/98SE/98
  Supported Languages:
  Visual C++, Visual Basic

AC adapter included



** The AC adapter provided is for 100 VAC only. To use in a DC power environment, use the DC-DC Power Supply Unit (sold separately).*

[Power Supplies] P. 15

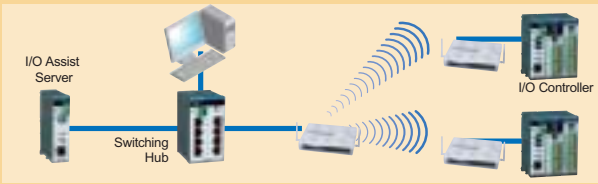
The Expanding Potential of F&eIT
Network Devices

Wireless LAN for F&eIT / Network connection with industrial systems

Wireless LAN Micro Access Point

FX-DS540-APDL.

Examples of wireless network using F&eIT



IEEE802.11a/b/g 54Mbps **FX-DS540-APDL** NEW

IEEE802.11a 54Mbps **FX-DS540-APL**

- Devices with a built-in (wired) Ethernet communication port can be converted to wireless irregardless of OS or protocol.
- The unit can be used as an access point for small-scale wireless LAN systems.
- A UTP cable power supply (sold separately) is available.

* Indicated figures are logical maximum values according to wireless LAN standards, and do not indicate the actual data transmission speeds.

Embedded 10/100 M Auto-recognition Switching Hub


Installation on DIN rail

SH-8008(FIT)GY CE

Power Supply Optional [Power Supplies] P. 15

Item	Specifications
Ethernet Standard	IEEE8023/IEEE8023u-compliant
Communication method	All ports, full-/half-duplex (auto-switching)
Flow Control	Full-duplex : IEEE8023x-compliant flow control Half-duplex : Back pressure
Number of Available Ports	8 (1 port used also for uplink)
Switching Method	Store & Forward
Address Table	8,192 entries
Power Consumption	5VDC ±5% 1.2A(Max.) (Use of F&eIT Series power supply or third-party stabilizing power supply recommended)
Operating Temperature / Humidity	0° to 50°C, 10 to 90% RH (no condensation)
Dimensions (mm)	52.4 (W) x 64.7 (D) x 94.0 (H) (excluding protrusions)
Weight	250g

This ultra-compact and lightweight general-purpose switching hub is ideal for embedded use.
Although designed for use with F&eIT systems it can also be used when integrating industrial system networks.

- Equipped with eight 10M/100 M auto-switching ports (one can serve as an uplink port)
- Equipped with 35 mm DIN rail mounting mechanism
- FG terminal power input connector

Remote PLC Management
PLC Link Server

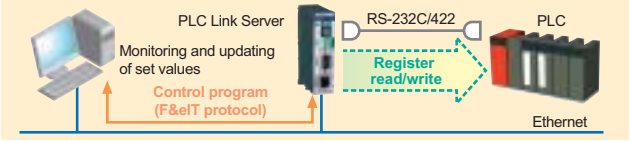
For monitoring and updating remote PLCs using an Intranet or the Internet.

PLC Link Servers

RS-232C type **SVR-PLCLC(FIT)GY** CE

RS-422 type **SVR-PLCLD(FIT)GY**

You can get and update PLC internal register information from any computer on the network.
You can also monitor the operating status of remote PLCs or update set values over an Intranet or Internet.



Supported PLCs

MITSUBISHI general-purpose PLC MELSEC-Q Series

Link Unit	QJ71C24 (supported protocol: 4C Frame, Form 4) QJ71C24-R2 (supported protocol 4C Frame, Form 4)
CPU Unit	Q00, Q00J, Q01, Q02, Q02H, Q06H, Q12H, Q25H

Device Modules

Easy stacking connection.
Extensive line-up designed to meet your specific device requirements

These modules provide additional I/O communication for Micro Controllers, I/O Controllers and Monitoring & Control Servers.

Isolated Digital I/O Modules

		Model	 Isolated CE Screw-less connector NEW 12 to 24 VDC 16 Inputs 12 to 48 VDC 16 Outputs	 Isolated CE Screw-less connector 12 to 24 VDC 8 Inputs/Outputs	 Isolated CE Screw-less connector 36 to 48 VDC 8 Inputs/Outputs	 Isolated CE Screw connector 12 to 24 VDC 4 Inputs 12 to 48 VDC 4 Outputs
		Specifications	DIO-16/16(FIT)GY	DIO-8/8(FIT)GY	DIO-8/8H(FIT)GY	DIO-4/4(FIT)GY
Input		Number of input signals	16 (16 points share one common)	8 (8 points share one common)		4 (4 points share one common)
		Input Type	Photocoupler isolated input (current sink and source types both supported)			
		Input Resistance	3kΩ	3kΩ	12kΩ	3kΩ
		Input ON Current	3.4 mA or more	3.4 mA or more	3.4mA or more	3.4 mA or more
		Input OFF Current	0.16 mA or less	0.16 mA or less	0.16 mA or less	0.16 mA or less
		Response Time	1 msec (max)	1 msec (max)	1 msec (max)	1 msec (max)
		External Circuit Power Supply	12 to 24 VDC (±15%) (4 mA/12 V to 8 mA/24 V per point)	12 to 24 VDC (±15%) (4 mA/12 V to 8 mA/24 V per point)	36 to 48 VDC (±15%) (4 mA/3 mA to 36 V/48 V per point)	12 to 24 VDC (±15%) (4 mA/12 V to 8 mA/24 V per point)
		Interrupt Request	All inputs can generate interrupts (one of IRQ 5 / 7 / 9 set to 1 level)			
Output		Number of Output Points	16 (16 points share one common)	8 (8 points share one common)		4 (4 points share one common)
		Output Form	Photocoupler isolated open collector output (current sink type)			
	Rating	Output Voltage	12 to 48 VDC (±15%)	12 to 24 VDC (±15%)	36 to 48 VDC (±15%)	12 to 48 VDC (±15%)
		Output Current	Max. 150 mA (12 to 24 V) (per point) Max. 50 mA (36 to 48 V) (per point)	Max. 150 mA (per point)	Max. 50 mA (per point)	Max. 150 mA (12 to 24 V) (per point) Max. 50 mA (36 to 48 V) (per point)
		Response Time	1 msec (max)			
		External Circuit Power Supply	12 to 48 VDC (±15%)	12 to 24 VDC (±15%)	36 to 48 VDC (±15%)	12 to 48 VDC (±15%)
Internal Current Consumption			5 VDC (±5%) 150 mA (max.)*1			
Max. Signal Extended Length			Approx. 50 m (depending on wiring environment)			
Dimensions (mm)			25.2 (W) x 64.7 (D) x 94.0 (H) (excluding protrusions)			
Weight (main unit)			100 g			
Applicable Wire Dia.			AWG 24 to 16	AWG 28 to 20		AWG 28 to 16
Applicable plug (provided)			FMC 1, 5/18-ST-3, 5 (made by PHOENIX CONTACT)	FK-MC 0, 5/9-ST-2, 5 (made by PHOENIX CONTACT)		FRONT-MC 1, 5/12-ST-3, 81 (made by PHOENIX CONTACT)

*1 The maximum allowable current of a stack connector is 3.0 A.

Isolated Digital Input Modules

	Model	 Isolated CE Screw-less connector NEW 12 to 24 VDC 32 Inputs	 Isolated CE Screw-less connector 12 to 24 VDC 16 Inputs	 Isolated CE Screw-less connector 36 to 48 VDC 16 Inputs	 Isolated CE Screw connector 12 to 24 VDC 8 Inputs
	Specifications	DI-32(FIT)GY	DI-16(FIT)GY	DI-16H(FIT)GY	DI-8(FIT)GY
Number of input signals		32 (16 points share one common)	16 (8 points share one common)		8 (8 points/common)
Input Type		Photocoupler isolated input (current sink and source types both supported)			
Input Resistance		3kΩ	3kΩ	12kΩ	3kΩ
Input ON Current		3.4 mA or more	3.4 mA or more	3.4 mA or more	3.4 mA or more
Input OFF Current		0.16 mA or less	0.16 mA or less	0.16 mA or less	0.16 mA or less
Response Time		1 msec (max)	1 msec (max)	1 msec (max)	1 msec (max)
External Circuit Power Supply		12 to 24 VDC (±15%) (4 mA/12 V to 8 mA/24 V per point)	12 to 24 VDC (±15%) (4 mA/12 V to 8 mA/24 V per point)	36 to 48 VDC (±15%) (4 mA/3 mA to 36 V/48 V per point)	12 to 24 VDC (±15%) (4 mA/12 V to 8 mA/24 V per point)
Interrupt Request		All inputs can generate interrupts (one of IRQ 5 / 7 / 9 set to 1 level)			
Internal Current Consumption		5 VDC (±5%) 150 mA (max.) *1			
Max. Signal Extended Length		Approx. 50 m (depending on wiring environment)			
Dimensions (mm)		25.2 (W) x 64.7 (D) x 94.0 (H) (excluding protrusions)			
Weight (main unit)		100 g			
Applicable Wire Dia.		AWG 24 to 16	AWG 28 to 20		AWG 28 to 16
Applicable plug (provided)		FMC 1, 5/18-ST-3, 5 (made by PHOENIX CONTACT)	FK-MC 0, 5/9-ST-2, 5 (made by PHOENIX CONTACT)		FRONT-MC 1, 5/12-ST-3, 81 (made by PHOENIX CONTACT)

*1 The maximum allowable current of a stack connector is 3.0 A

Non-isolated Digital I/O Module

Model			DIO-8D(FIT)GY
			TTL (5 VDC) 8 Inputs/Outputs
Specifications			
Input/Output	Number of input signals		8 (8 points share one common)
	Input/Output Form		Non-isolated TTL level I/O (minus logic)
	Input pull-up resistance		100 kΩ (1 common)
	Response Time		200 nsec (max)
	Rating	Input Voltage	-0.5 to +5.5 VDC
		Output Current	IOL=6mA, IOH=2mA (per point)
Internal Current Consumption			5 VDC (± 5%) 150 mA (max.) *1
Max. Signal Extended Length			Approx. 1.5 m (depending on wiring environment)
Dimensions (mm)			25.2 (W) x 64.7 (D) x 94.0 (H) (excluding protrusions)
Weight (main unit)			100 g
Applicable Wire Dia.			AWG 28 to 16
Applicable plug (provided)			FRONT-MC 1, 5/12-ST-3, 81 (made by PHOENIX CONTACT)

*1 The maximum allowable current of a stack connector is 3.0 A

Isolated Digital Output Modules

Model			DO-32(FIT)GY	DO-16(FIT)GY	DO-8(FIT)GY
			12 to 48 VDC 32 Outputs	12 to 48 VDC 16 Outputs	12 to 48 VDC 8 Outputs
Specifications					
Output	Number of Output Points		32 (16 points share one common)	16 (8 points share one common)	8 (8 points share one common)
	Output Form		Photocoupler isolated open collector output (current sink type)		
	Rating	Output Voltage	12 to 48 VDC (± 15%)		
		Output Current	Max. 150 mA (12 to 24 V) (per point) Max. 50 mA (36 to 48 V) (per point)		
	Response Time		1 msec (max)		
External Circuit Power Supply			12 to 48 VDC (±15%)		
Internal Current Consumption			5 VDC (± 5%) 150 mA (max.) *1		
Max. Signal Extended Length			Approx. 50 m (depending on wiring environment)		
Dimensions (mm)			25.2 (W) x 64.7 (D) x 94.0 (H) (excluding protrusions)		
Weight (main unit)			100 g		
Applicable Wire Dia.			AWG 28 to 16	AWG 28 to 20	AWG 28 to 16
Applicable plug (provided)			FMC 1, 5/18-ST-3, 5 (made by PHOENIX CONTACT)	FK-MC 0, 5/9-ST-2, 5 (made by PHOENIX CONTACT)	FRONT-MC 1, 5/12-ST-3, 81 (made by PHOENIX CONTACT)

*1 The maximum allowable current of a stack connector is 3.0 A

Isolated Analog Input Modules

Model			ADI12-8(FIT)GY	ADI16-4(FIT)GY
			Isolated analog input, 12 bits, 8 channels	Isolated analog input, 16 bits, 4 channels
Specifications				
Number of Channels			8 differential inputs	4 differential inputs
Input Type			Bus isolated voltage input	Bus isolated voltage/current input
Input Range			Bipolar ±10V, ±5V Unipolar 0 to 10 V, 0 to 5 V	[Voltage] Bipolar ± 10V [Current] 0 to 20 mA
Max. Input Rating			±20 V	[Voltage] ± 20 V [Current] 30 mA
Resolution			12 bits	16 bits
Non-linearity error *1			±3 LSB	[Voltage] ± 8 LSB (± 0.012% of FSR) [Voltage] ± 20 LSB (± 0.030% of FSR)
Conversion Speed			Number of channels x 10 µ sec + 20 µ sec	[Voltage] Number of channels x 10 µsec + 20 µsec [Current] Number of channels x 40 µsec + 20 µsec
Data Buffer			8 words	64 words
Sampling Timer *2			10 µsec to 1,073,741,824 µsec	
Interrupt Request *2			Select two or more from sampling clock input and 4 other events (one of IRQ5/7/9 set to 1 level)	Select two or more from sampling clock input and 5 other events (one of IRQ5/7/9 set to 1 level)
Internal Current Consumption			5 VDC (± 5%) 350 mA (max.)	5 VDC (± 5%) 350 mA (max.)
Max. Signal Extended Length			1.5m	
Dimensions (mm)			25.2 (W) x 64.7 (D) x 94.0 (H) (excluding protrusions)	
Weight (main unit)			100 g	
Applicable Wire Dia.			AWG 28 to 20	AWG 28 to 16
Applicable plug (provided)			FK-MC 0, 5/12-ST-2, 5 (made by PHOENIX CONTACT)	FRONT-MC 1, 5/12-ST-3, 81 (made by PHOENIX CONTACT)

*1 An error of about 0.1% of the maximum range sometimes occurs as a non-linearity error at an ambient temperature of 0ºC and 50ºC. This error can be reduced by calibrating at the operating environment temperature.
*2 Can be used only when connected to the CPU-SBxx(FIT)GY.

ADI12-8(FIT)GY dedicated low-pass filter

Model		ATLF-8(FIT)GY
		ADI12-8(FIT)GY dedicated low-pass filter
Specifications		
Input Range		-10 V to +10 V
Max. Input Voltage		± 20V
Input Impedance		1MΩ
Input Channel		8 differential input channels
Accuracy		±0.2%
Filter Shutoff Frequency		10 Hz (typ.)
Dimensions (mm)		50.4 (W) x 64.7 (D) x 94.0 (H) (excluding protrusions)
Weight (main unit)		105 g
Applicable Wire Dia.		AWG 28 to 20
Applicable plug		FK-MC 0, 5/12-ST-2, 5 (made by PHOENIX CONTACT)

Device Modules

Isolated Analog Output Modules

Model	 Isolated, CE, Screw-less connector Isolated analog output, 12 bits, 4 channels	 Isolated, Screw Connector Isolated analog output, 16 bits, 4 channels
Specifications	**DAI12-4(FIT)GY**	**DAI16-4(FIT)GY**
Number of Channels	4 channels	
Output Type	Bus isolated voltage/current output	
Output Range	[Voltage] Bipolar ±10 V, ±5 V Unipolar 0 to 10 V, 0 to 5 V (output current ±5 mA) [Current] 0 to 20 mA	[Voltage] Bipolar ±10 V (output current ±5 mA) [Current] 0 to 20 mA
Output Impedance	Output range: 10 Ω (max.)	Output range: 10 Ω (max.)
Resolution	12 bits	16 bits
Conversion Accuracy*1	[Voltage] ±3 LSB [Current] ±5 LSB	[Voltage] ±18 LSB (±0.027% of FSR) [Current] ±18 LSB (±0.027% of FSR)
Settling Time	[Voltage] 10 µ sec/ch [Current] 20 µ sec/ch	[Voltage] 10 µ sec/ch [Current] 20 µ sec/ch
Data Buffer	–	64 words
Pacer Timer*2	10 µ sec to 1,073,741,824 µ sec	
Interrupt Request*2	Select two or more from pacer clock input and 3 other causes (one of IRQ5/7/9 set to 1 level)	Select two or more from pacer clock input and 6 other causes (one of IRQ5/7/9 set to 1 level)
Internal Current Consumption	5 VDC (±5%) 400 mA (max.)	5 VDC (±5%) 500 mA (max.)
Max. Signal Extended Length	1.5m	
Dimensions (mm)	25.2 (W) × 64.7 (D) × 94.0 (H) (excluding protrusions)	
Weight (main unit)	100g	
Applicable Wire Dia.	AWG 28 to 20	AWG 28 to 16
Applicable plug (provided)	FK-MC 0,5/12-ST-2,5 (made by PHOENIX CONTACT)	FRONT-MC 1,5/12-ST-3,81 (made by PHOENIX CONTACT)

*1 An error of about 0.1% of the maximum range can occur in the conversion accuracy at an ambient temperature of 0ºC and 50ºC.
*2 Can be used only when connected to the CPU-SBxx(FIT)GY.

Pt100 Temperature Sensor Input Module

Model	 Isolated, CE, Screw-less connector, NEW Pt100 temperature input, 4 channels
Specifications	**PTI-4(FIT)GY**
Number of Channels	4 channels
Compatible Platinum RTD	Pt100 (JIS C1604-1997, IEC 751 1983), JPt100 (JIS C1604-1989)
Wiring Method	3-lead type, 4-lead type
Temperature Measurement Range	Pt100: –200 to 850ºC Pt100: –200 to 510ºC
Accuracy: Ambient Temperature 0 to 50ºC	±0.3ºC*1
Accuracy: Ambient Temperature 15 to 35ºC	±0.15ºC*1
Resolution	0.01ºC
Conversion Speed	Selectable from 150 ms/40 ms/5 ms per channel
Output Current for Temperature Detection	1mA
Isolation Method	Across platinum RTD and power supply: Photocoupler isolation Across platinum RTD input channel: No isolation
Max. Number of Writes to Flash ROM	Max. 100,000
Internal Current Consumption	5 VDC (±5%) 500 mA (max.)*2
Dimensions (mm)	25.2 (W) × 64.7 (D) × 94.0 (H) (excluding protrusions)
Weight (main unit)	100g
Applicable Wire Dia.	AWG 28 to 20
Applicable plug (provided)	FK-MC 0,5/9-ST-2,5 (made by PHOENIX CONTACT)

*1 When conversion speed is set to 150 ms
*2 The maximum allowable current value of the stack connector is 3.0 A
A maximum of six of these units can be connected to a controller.

Isolated Counter Modules

Model	 Isolated, CE, Screw-less connector 24-bit up/down 5 to 12 VDC, 2 channels	 Isolated, CE, Screw Connector 16-bit up 12 to 24 VDC, 8 channels	 Isolated, CE, Screw Connector 16-bit up 5 VDC, 8 channels
Specifications	**CNT24-2(FIT)GY**	**CNT16-8(FIT)GY**	**CNT16-8L(FIT)GY**
Number of Channels	2 channels	8 channels	
Counting Method	24-bit up/down count 1-phase, 1-phase w/gate control, 2-phase	16-bit up count	
Input Type	Photocoupler isolated input (for current sink output)	Photocoupler isolated input (current sink and source types both supported)	
Input Resistance	220 Ω or more	3 kΩ	
External Circuit Power Supply	5 to 12 VDC (±10%) 400 mA (min.)	12 to 24 VDC (±15%) (4 mA/12 V to 8 mA/24 V per point)	5 VDC (±10%) (4 mA per point)
Response Frequency	500 kHz (max.) Duty 50% (max.)	5 kHz (max.) Duty 50% (max.)	10 kHz (max.) Duty 50% (max.)
Digital Filter*1	0.1 µsec to 1056.1 µsec	0.25 µsec to 131.072 msec	
Programmable Timer*1	1 msec to 200 sec	n/a	
Interrupt Request	Two more selectable from timer time-up and setting counter value match (one of IRQ5 / 7 / 9 set to 1 level)	Counter Carryover (one of IRQ5 / 7 / 9 set to 1 level)	
Match Signal Output*2: Number of Outputs	1 point × 2 channels	n/a	
Match Signal Output*2: Output Form	Photocoupler isolated open collector output (current sink type) (minus logic)		
Match Signal Output*2: Output Rating	35 VDC 50 mA (max.)		
Match Signal Output*2: Pulse Width	0 to 104.45 msec		
Match Signal Output*2: External Power Supply	5 to 12 VDC (±10%)		
Internal Current Consumption	5 VDC (±5%) 150 mA (max.)		
Max. Signal Extended Length	30m	Approx. 50 m (depending on wiring environment)	
Dimensions (mm)	25.2 (W) × 64.7 (D) × 94.0 (H) (excluding protrusions)		
Weight (main unit)	100g		
Applicable Wire Dia.	AWG 28 to 20	AWG 28 to 16	
Applicable plug (provided)	FK-MC 0,5/9-ST-2,5 (made by PHOENIX CONTACT)	FRONT-MC 1,5/12-ST-3,81 (made by PHOENIX CONTACT)	

*1 Can be used only when connected to the CPU-SBxx(FIT)GY.
*2 Not supported when connected to the CPU-CA10(USB)GY.

Reed Relay Contact Output Module

Model	 Isolated, CE, Screw Connector, NEW 125VAC/30VDC 2A Reed Relay Contact Outputs 4 points
Specifications	**RRY-4(FIT)GY**
Number of Outputs	4 points
Output Form	Reed relay contact (1 make output) output
Relay Contact Specifications: Max. Allowable Voltage	125 VAC, 30 VDC (max.)
Relay Contact Specifications: Max. Switching Current	2A (max.)
Relay Contact Specifications: Contact Resistance	30 mmΩ or less
Relay Contact Specifications: Response Time	Within 7 msec
Relay Contact Specifications: Mechanical Life	20 million operations or more (switching frequency: 180 operations/minute)
Relay Contact Specifications: Electrical Life	10 million operations or more (switching frequency: 20 operations/minute)
Relay Contact Specifications: Relay Used	PA1a-5V
Internal Current Consumption	5 VDC (±5%) 150 mA (max.)*1
Max. Signal Extended Length	Approx. 50 m (depending on wiring environment)
Dimensions (mm)	25.2 (W) × 64.7 (D) × 94.0 (H) (excluding protrusions)
Weight (main unit)	100g
Applicable Wire Dia.	AWG 28 to 16
Applicable plug (provided)	FRONT-MC 1,5/12-ST-3,81 (made by PHOENIX CONTACT)

*1 The maximum allowable current value of the stack connector is 3.0 A

Serial Communication Modules

Model	 RS-232C 2-channel	 Isolated RS-422/485 1-channel
Specifications	**COM-2(FIT)GY**	**COM-1PD(FIT)GY**
Number of Channels	2 channels	1 channel
I/O Specifications	RS-232C	RS-422A/RS-485
Transmission Method	Asynchronous serial transmission (full-duplex)	Asynchronous serial transmission (full-duplex/half-duplex)
Baud Rate	2 to 921,600 bps	
Data Length	5, 6, 7, or 8 bits, 1, 1.5 or 2 stop bits	
Parity Check	Even, odd, no parity	
Mounted LSI	162850 or equivalent (FIFO buffer send: 128 byte, receive: 128 byte)	
Internal Current Consumption	5VDC (±5%) 100mA (Max.)	5VDC (±5%) 300mA (Max.)
Connector	9-pin D-sub (male) × 2	9-pin D-sub (female) × 1
Dimensions (mm)	25.2 (W) × 64.7 (D) × 94.0 (H) (excluding protrusions)	
Weight (main unit)	100g	

GPIB Communication Module

Model	 Isolated CE GPIB 1-channel
Specifications	**GP-IB(FIT)GY**
Number of Channels	1 channel
I/O Specifications	GPIB (IEEE-488.1, IEEE-488.2) standard-compliant
Transmission Method	8-bit parallel/3-line handshake
Transmission Speed	30 KB/sec (max.)
Internal Current Consumption	5VDC (±5%) 230mA (Max.)
Dimensions (mm)	25.2 (W) × 64.7 (D) × 94.0 (H) (excluding protrusions)
Weight (main unit)	100g

Power Supply Series

Power Supply Units exclusively for the F&eIT system. Units should be selected on the basis of required power level and the power available at the installation site.

AC-DC Power Supplies

POW-AD13GY

POW-AD22GY CE

POW-AD25GY

POW-AD13GY.

DC-DC Power Supplies

POW-DD10GY CE

POW-DD43GY

POW-DD10GY.

AC Adapter (1.4 m cable)

POA-AD22

Item	Specifications					
	POW-AD13GY	POW-AD22GY	POW-AD25GY	POW-DD10GY	POW-DD43GY	POA-AD22
Input	85 to 132VAC	85 to 264VAC	85 to 264VAC	10 to 30VDC	30 to 50VDC	90 to 264VAC
Output	5.0VDC±5%					
	3.0A (Max.)	2.0A (Max.)	115VAC : 4.2A (Max.) 230VAC : 4.6A (Max.)	3.0A (Max.)		2.0A (Max.)
Operating Temperature/ Humidity	0 to 50ºC, 10 to 90% RH (no condensation)			0 to 40ºC, 10 to 90% RH (no condensation)		0 to 50ºC, 20 to 90% RH (no condensation)
Dimensions (mm)	52.4 (W) × 64.7 (D) × 94.0 (H) (excluding protrusions)			25.2 (W) × 64.7 (D) × 94.0 (H) (excluding protrusions)		44.0 (W) × 55.0 (D) × 26.5 (H) (excluding protrusions)
Weight	150 g (main unit only)	110 g (main unit only)	200 g (main unit only)	150 g (main unit only)		100g (main unit only)

Options

Fan

The F&eIT Series can be operated with no fan in temperatures of 0 to 50ºC

The allowable operating temperature can be raised by 5º to 60ºC by using the optional Fan - FAN-FIT.

FAN-FIT

Item	Specifications
Rated Voltage	DC5V±10%
Rated Current	0.18A
Max. Airflow	0.1m³/min
Max. Static Pressure	2.3mmH₂O
Noise	30dB
Operating Temperature Range	5 to 60ºC
Rotating Speed	5200rpm
Life	50,000 h (temperature: 20ºC, humidity: 65%), 30,000 h (temperature: 60ºC)
Dimensions (mm)	42.6 (W) × 47.2 (D) × 11.2 (H) (excluding protrusions)
Weight (main unit)	40g

Device Modules Compatability Table

Max 8 modules

(Total power consumption 3 A or less)

A maximum of eight modules can be stacked on one unit.
However, the power consumption of the configuration of connected device modules cannot exceed a total of 3 Amps.

Function	Model	Power Consumption	Micro Controllers: CPU-SB21/256(FIT)GY CPU-SB20/256(FIT)GY CPU-SB20/128(FIT)GY CPU-SB10/128(FIT)GY	I/O Controllers: CPU-CA20(FIT)GY CPU-CA10(FIT)GY	I/O Controllers: CPU-CA10(USB)GY	Monitoring & Control Servers: SVR-MMF(FIT)GY	I/O Assist Servers: SVR-IOA2(FIT)GY SVR-IOA(FIT)GY
Isolated Digital I/O							
12 to 24 VDC 16 Inputs/12 to 48 VDC 16 Outputs	DIO-16/16(FIT)GY NEW	0.15A	○	○	–	–	Device modules cannot be stacked.
12 to 24 VDC 8 Inputs/Outputs	DIO-8/8(FIT)GY	0.15A	○	○	○	○	
36 to 48 VDC 8 Inputs/Outputs	DIO-8/8H(FIT)GY	0.15A	○	○	–	○	
12 to 24 VDC 4 Inputs/12 to 48 VDC 4 Outputs	DIO-4/4(FIT)GY	0.15A	○	○	–	○	
Non-isolated Digital I/O							
TTL (5 VDC) 8 Inputs/Outputs	DIO-8D(FIT)GY	0.15A	○	○	–	○	
Isolated Digital Input							
12 to 24 VDC 32 Inputs	DI-32(FIT)GY NEW	0.15A	○	○	–	–	
12 to 24 VDC 16 Inputs	DI-16(FIT)GY	0.15A	○	○	○	○	
36 to 48 VDC 16 Inputs	DI-16H(FIT)GY	0.15A	○	○	–	○	
12 to 24 VDC 8 Inputs	DI-8(FIT)GY	0.15A	○	○	–	○	
Isolated Digital Output							
12 to 48 VDC 32 Outputs	DO-32(FIT)GY NEW	0.15A	○	○	–	–	
12 to 48 VDC 16 Outputs	DO-16(FIT)GY	0.15A	○	○	○	○	
12 to 48 VDC 8 Outputs	DO-8(FIT)GY	0.15A	○	○	–	○	
Isolated Analog Input							
Isolated analog input, 12 bits, 8 channels	ADI12-8(FIT)GY	0.35A	○	○	○	○	
Isolated analog input, 16 bits, 4 channels	ADI16-4(FIT)GY	0.30A	○	○	–	○	
Isolated Analog Output							
Isolated analog output, 12 bits, 4 channels	DAI12-4(FIT)GY	0.40A	○	○	○	○	
Isolated analog output, 16 bits, 4 channels	DAI16-4(FIT)GY	0.50A	○	○	–	○	
Pt100 Temperature Sensor Input							
Pt1000 temperature input, 4 channels	PTI-4(FIT)GY NEW	0.50A	○	○	–	–	
Isolated Counter							
24-bit up/down, 5 to 12 VDC, 2 channels	CNT24-2(FIT)GY	0.15A	○	○	○	○	
16-bit up, 12 to 24 VDC, 8 channels	CNT16-8(FIT)GY	0.15A	○	○	–	○	
16-bit up, 5 VDC, 8 channels	CNT16-8L(FIT)GY	0.15A	○	○	–	○	
Reed Relay Contact Output							
125 VAC/30 VDC 2 A, 4 lead relay contact outputs	RRY-4(FIT)GY NEW	0.15A	○	○	–	–	
Serial Communication							
RS-232C 2-channel	COM-2(FIT)GY	0.10A	○*4	–	–	○*5	
RS-422/485 1-channel	COM-1PD(FIT)GY	0.30A	○*4	–	–	○*5	
GPIB Communication							
GPIB (IEEE-488) 1-channel	GP-IB(FIT)GY	0.23A	○*6	–	–	–	

*4: One module can be connected in the Compatible mode, and up to three modules can be connected in the Enhanced mode. *5: Only one module can be connected. *6:Up to three modules can be connected.

Power Supplies

AC-DC Type

Model	Supply Current (5VDC)	Input Voltage
POW-AD13GY	3.0A	85 to 132 VAC
POW-AD22GY	2.0A	85 to 264 VAC
POW-AD25GY	4.2 to 4.6A	85 to 264 VAC
POA-AD22	2.0A	90 to 264 VAC

DC-DC Type

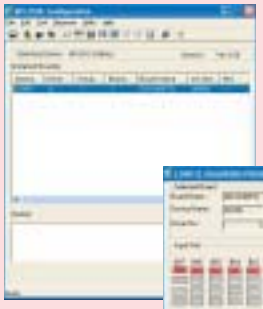
Model	Supply Current (5VDC)	Input Voltage
POW-DD10GY	3.0A	10 to 30 VDC
POW-DD43GY	3.0A	30 to 50 VDC

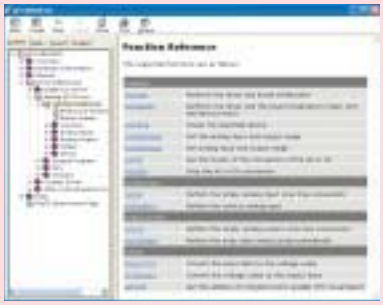
Software

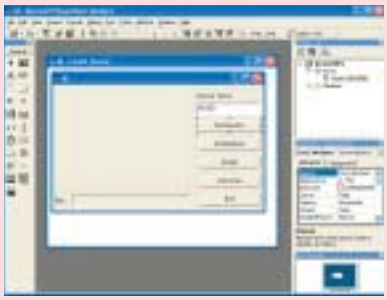
Windows driver library for CPU-SBxx(FIT)GY — API-SBP(W32)

The API-SBP(W32) driver software provides commands in Windows-standard Win32API(DLL) format to Device Modules stacked on the CPU-SB10(FIT)GY and CPU-SB20(FIT)GY.
A diagnostics monitor allows you to confirm operation without the aid of a program.
Programs can be developed in a variety of programming languages (e.g. Visual Basic and Visual C++) that support Win32API.

- Digital I/O, analog I/O, counters and GPIB communication device modules are supported
- Highly compatibe with API-PAC(W32) the driver library developed for CONTEC interface boards/cards
- Windows® XP/XP Embedded/2000/NT4.0/Me/98/98 Second Edition/95 OSR2/95 supported
- Includes Visual Basic and Visual C++ sample programs


Setup program
(API-TOOL configuration)


Online help


Sample program


Diagnostics monitor

Latest versions can be downloaded free of charge from CONTEC's Web site.

* To develop applications in Linux, use the Linux general-purpose I/O driver IO-LIB(LNX) also available free of charge from CONTEC's web site. (IO-LIB(LNX) is not required for the Serial Communication Module COM-2(FIT)GY or COM-1PD(FIT)GY both of which are recognized by Linux as standard COM ports.)

Windows® driver library for CPU-CAxx(FIT)GY — API-CAP(W32) NEW

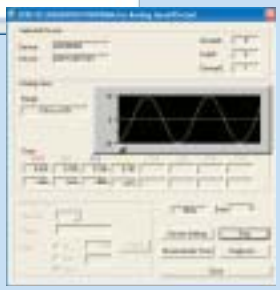
The API-SBP(W32) driver software provides commands in Windows-standard Win32API(DLL) format to Device Modules stacked and networked with the CPU-CA10(FIT)GY and CPU-CA20(FIT)GY.
A diagnostics monitor allows you to confirm operation without the aid of a program.
Programs can be developed in a variety of programming languages (e.g. Visual Basic and Visual C++) that support Win32API.

- Networked devices are automatically detected by the F&eIT setup utility
- Digital I/O, analog I/O, counters and GPIB modules are supported
- Windows® XP/2000/Me/98/98 Second Edition are supported
- Includes Visual Basic, Visual C++, Visual Studio.NET, Borland C++Builder and Borland Delphi sample programs
- I/O Assist Servers SVR-IOA(FIT)GY and SVR-IOA2(FIT)GY are supported


Setup program
(F&eIT setup utility)

Online help


Sample program


Diagnostics monitor

Latest versions can be downloaded free of charge from CONTEC's Web site.

* To develop applications in Linux, socket communication must be performed using F&eIT protocol.

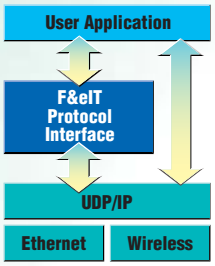
From Factory Floor to Corporate Offices, CONTEC Provides Seamless So

The sudden spread of the Internet has resulted in networks springing up in a wide range of fields. This, in turn, has resulted in the appearance of many information devices that make use of this infrastructure. Yet, it is a fact that interconnectivity - the greatest advantage of networks - is not being used to its fullest. CONTEC sees networks as a prime part of the system bus concept and has developed distributed monitor & control networks that organically integrate various applications from corporate offices through to field applications.

Technology

Ideal Network Protocol - "F&eIT Protocol"

"F&eIT Protocol" is an original communication protocol used with Contec's UDP/IP-based F&eIT Series.
"UDP/IP" is often used in combination with TCP/IP, and requires simpler communication procedures. This high-speed protocol is ideally suited for use in networks that require realtime operation.
However, with connectionless protocols, there is a problem of reliability since arrival of incoming data is not confirmed. CONTEC has resolved this problem by adding a response confirmation process to the upper layer of UDP/IP. The result is the "F&eIT Protocol" featuring speed, real-time operation and reliability; proving to be an ideal protocol for industrial device networks.

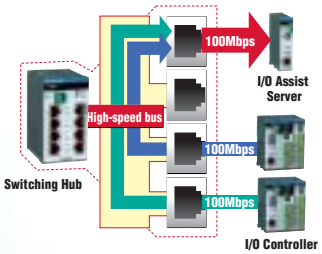


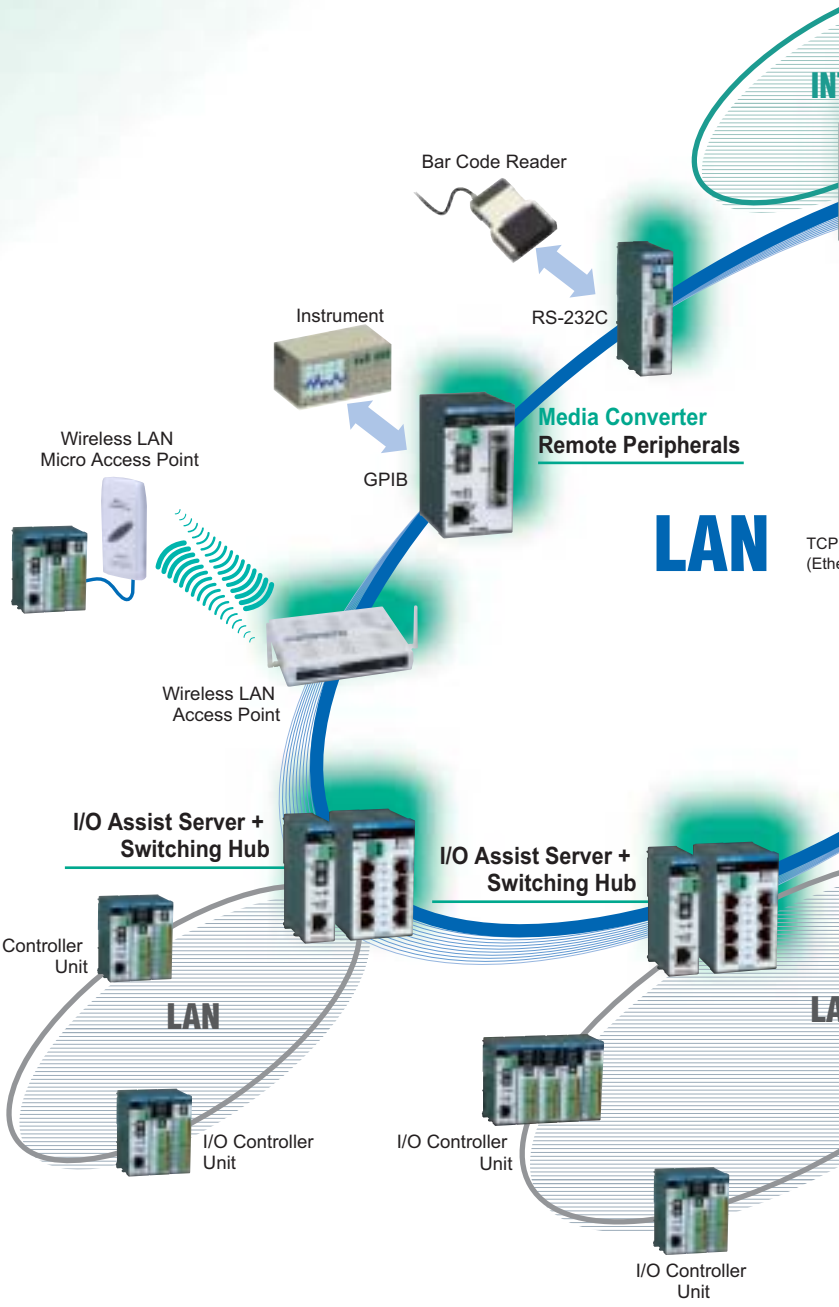
Open Architecture

As an open architecture, F&eIT protocol enables compatible units to be controlled not only by dedicated Win32API functions but also general-purpose socket functions on other operating systems.
"F&eIT Bus," the system bus that establishes the connection between device modules is also based on an open architecture. It allows users to develop their own original device modules.

Stable Cyclic Time

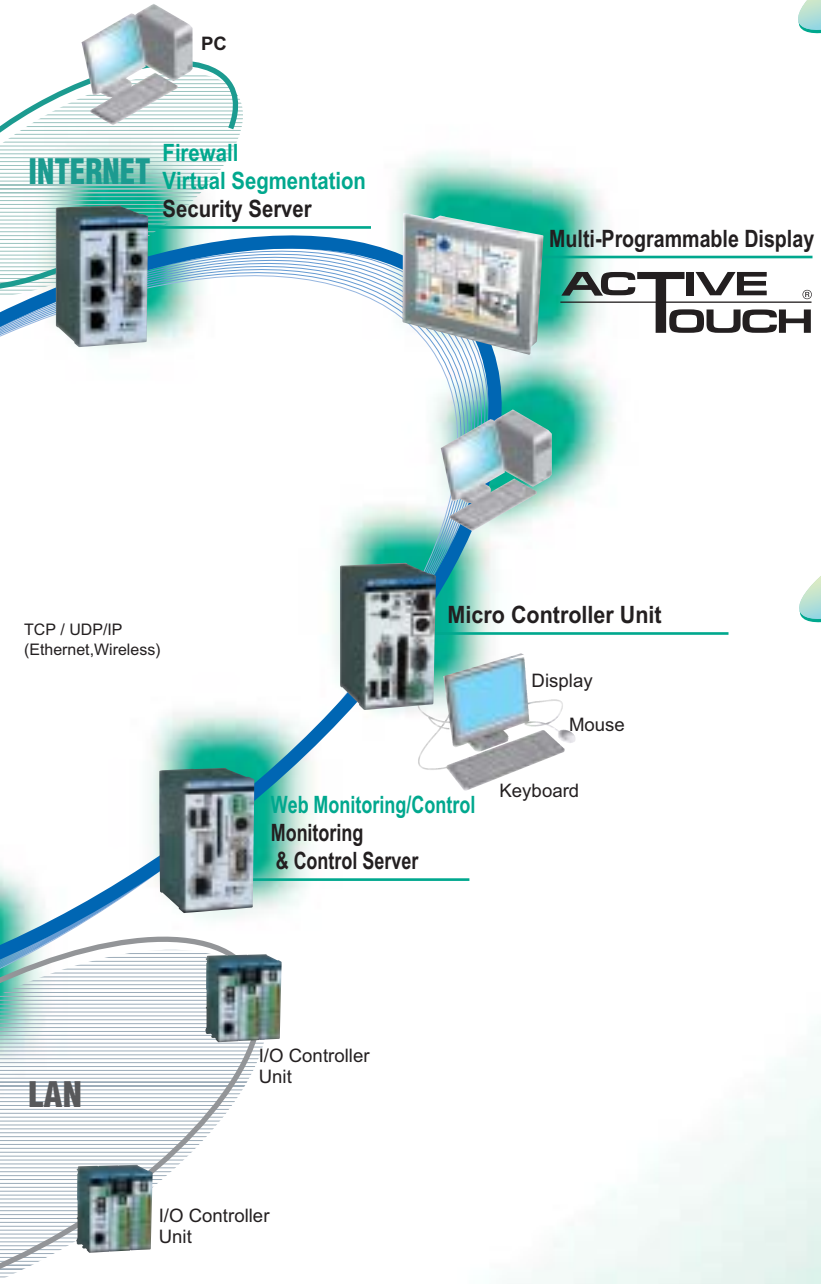
Data collisions and delays in Ethernet communication are a bottleneck for the real-time operation that is required in industrial networks. CONTEC's high-speed switching technology solves this problem.
For example, packets sent from multiple I/O Controller Units will be routed at high speed by the internal bus on the switching hub before they are transferred to an I/O Assist Server or other target node. The result is a short and stable cyclic time with no data collisions.





s Solutions with Expanding Potential.

F&eIT®



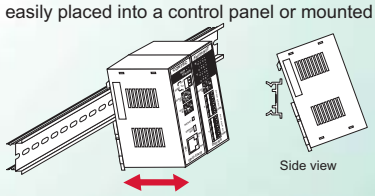
Compilation of CONTEC

Over the years, CONTEC has developed products in the fields of industrial computers, instrumentation/control components and computer networks.
The F&eIT Series fully incorporates CONTEC's expertise, achieving the essential features of speed, reliability, maintenance and energy savings in industrial systems.

Easy & Flexible

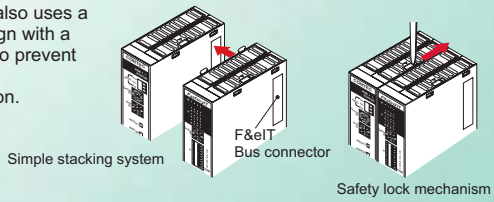
Equipped with 35 mm DIN Rail Mounting Mechanism

F&eIT Series components are equipped with a mechanism for mounting onto general-purpose 35 mm DIN rail.
As a result, they can be easily placed into a control panel or mounted on a case. They can also be mounted on and removed from a DIN rail using only a flathead screwdriver.



F&eIT Bus - Simple Stacking Method Eliminates the Need for a Backplane

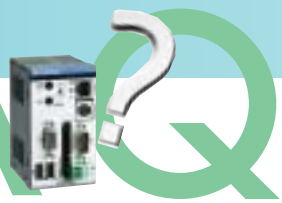
This simple stacking mechanism requires no backplane and allows for easy expansion of I/O interfaces for I/O Controller Modules or Micro Controller Units.
F&eIT Bus also uses a secure design with a safety lock to prevent accidental disconnection.



Programless Web Remote Monitoring and Control

The I/O Assist Server and Monitoring & Control Server are provided with a Web server function that can be configured using standard GUI parts.
This allows you to configure a remote monitoring/control system that uses a Web browser without the aid of a program.

FAQ



Frequently Asked Questions Concerning Installation of F&eIT

Common Questions

Q. What are the differences between the I/O Assist Server - SVR-IOAx(FIT)GY and the I/O Controller Module CPU-CAxx(FIT)GY?

A. The CPU-CAxx(FIT)GY is for controlling various stacked device modules, whereas, the SVR-IOAx(FIT)GY collects the data from several CPU-CAxx (FIT)GYs units used in a system. SVR-IOAx(FIT)GY provides aggregated data in response to requests for data from a host computer. In this way, the load on the network and host computer can be reduced. As the unit incorporates GUI components (Java applets) and a Web server function, I/O information can be monitored from a remote site.

Q. What methods are available for developing client software?

A. There are four different development methods

①Programless remote monitoring system
(Using I/O Assist Server SVR-IOAx(FIT)GY and Monitoring & Control Server SVR-1MMF(FIT)GY)

By using the GUI components (Java Applets) and Web Server Functions provided with the SVR-10Ax(FIT)GY or SVR-MMF(FIT)GY you can create a remote monitoring system without the aid of a program. You simply organize graphs, buttons and other GUI components in the browser window then assign properties to them (such as response to signals, color and size) to create your monitoring screen.

②Programming using access functions
(Windows API function format)

You can develop various programs in Visual C++ and VisualBasic using the access functions provided with the I/O Assist Server SVR-IOAx(FIT)GY or I/O Controller CPU-CAxx(FIT)GY.

③Programming using socket-to-socket communications

You can access each of the F&eIT Series units using socket-to-socket communication from devices that support TCP/IP protocol. With socket-to-socket communication, transmission and reception must be executed in accordance with rules stipulated in the common protocol for the F&eIT Series.

④Programming using DDE

Applications that are provided with DDE server and client functions can acquire input data from F&eIT Device Modules.

Q. Is it possible to communicate with PLCs?

A. Communication with PLCs is supported on the following products:

- Monitoring & Control Server SVR-MMF(FIT)GY
  Internal information on PLCs connected via RS-232C or RS-422/485 can be read and written in the same manner as stacked Device Modules communicate with the I/O Controller or I/O Assist Server.
- PLC Link Servers SVR-PLCLC(FIT)GY and SVR-PLCLD(FIT)GY
  Internal information on PLCs connected by RS-232C or RS-422/485 cable can be read and written from a networked computer.

* For details on compatible PLCs, check in this catalog or at our Web site.

Q. Is it OK to use Ethernet (twisted pair) cable in factories that have a lot of noise?

A. Throughout rigorous noise testing, the communication error rate remained at 0.004% when the cable radiant noise was up to500V and less that 1% when the noise was 2,000V. Ethernet is used as the base cable for FL-net, the FA control network that was set up by the FA Open Systems Promotion Forum at the request of the Japan Automobile Manufacturers Association, Inc. Furthermore, Ethernet-based remote I/O is becoming increasingly common overseas. If necessary, you can also use STP (Shielded Twisted Pair: 100 Ω) cable or an optical media converter.

Q. Does the plastic case pose any noise generation problems?

A. These units are certified FCC Class A.

Q. Can the units be exported?

A. We have obtained CE for all but a few models.

Q. How long is the warranty period?

A. Our products are warranted for one year after the date of purchase. We provide free repair and replacement service during the warranty period in accordance with our warranty agreement.
For details of CONTEC's "Product Warranty," refer to the pages at the end of the CONTEC PRODUCT CATALOG.

Micro Controllers
CPU-SB20(FIT)GY, CPU-SB10(FIT)GY
DTK-SB20(FIT)GY

Q. How do you install and build an execution environment on the CPU-SB20(FIT)GY?

A. There are two ways to build an execution environment:
①Use DTK-SB20(FIT)GY; or
②Use a third-party USB CD-ROM or FD
For details on how to install the various OSs, see details on our Web site.

Q. Can I build the execution environment for the CPU-SB20(FIT)GY using the DTK-SB10(FIT)GY Development Kit for the CPU-SB10(FIT)GY?

A. No, you can't.
The DTK-SB10(FIT)GY Development Kit is exclusively for CPU-SB10 (FIT)GY.

Q. How reliable is the Compact Flash that serves as the boot drive on Micro Controllers?

A. The nominal number of times that a Compact Flash can be written is 300,000. The Compact Flash file system is designed in such a way that the same block is not rewritten consecutively. With this design a Compact Flash has a life almost as long as that of a CONTEC silicon disk drive.

Q. Is the unit provided with a mechanism to prevent the Compact Flash from coming loose?

A. No, there isn't. However, the unit has passed CONTEC in-house vibration tests with a Compact Flash inserted.

For other FAQ information, visit our Web site.

I/O Controller Module CPU-CAx(FIT)GY

Q. What are the differences between the two Windows drivers provided with CPU-CAxx(FIT)GY and SVR-IOA(FIT)GY?

A. In the past, two drivers were provided: the API functions (DLL) made exclusively for remote I/O and the Win32 API functions (DLL) common to the F&eIT Series.
The F&eIT units are now shipped with API-CAP(W32), an expanded library, containing both. It contains specialized analog and digital functions, allowing devices to be accessed more easily.
Use of this library is highly recommended.

Q. Can I add permanently installed operation terminals to a system using the CPU-CAxx(FIT)GY?

A. CONTEC's Multi-Programmable Display "ACTIVE TOUCH®" can provide the needed intercommunication. It can be used on not only small-scale Ethernet-based lead-free systems but also medium-scale systems using the SVR-IOAx(FIT)GY.
* For details on ACTIVE TOUCH, visit our Web site.

Device Modules

Q. Can Device Modules be used with no Controller Unit?

A. No, they can't.
They must be stacked on a Controller or Server Unit before they can function.

Q. How can I set the I/O ranges on an Isolated Analog I/O Module?

A. • ADI12-8(FIT)GY, DAI12-4(FIT)GY
You can use software for the setup. The procedure differs according to the Controller Unit and Server Unit to be used.
• ADI16-4(FIT)GY, DAI16-4(FIT)GY
You use the dipswitch provided on the front side for the setting.
Please note that you cannot set different input / output ranges for each individual channel.
Please refer to the User's Manual for details

Media Converters

Q. Is communication via the router (or firewall) possible in the Transparent mode on the RP-COM(FIT)GY and FX-DS110-COM?

A. Yes, it is.
To perform communication via a router (or firewall), manually set the IP address and ID of each communication peer in the utility software provided. Be careful when setting the router (or firewall) as the UDP port [5000 h to 500 Fh] is used.
(When the Media Converter is located in the same IP segment, the IP address does not need to be set as it is detected automatically.)

I/O Assist Server Unit SVR-IOAx(FIT)GY

Q. How long is the I/O cyclic time?

A. The SVR-IOAx(FIT)GY collects data periodically from subordinate CPUCAxx(FIT)GYs. When the SH-8008(FIT)GY is used, there will be no data leakage to the backbone LAN including the host. When access functions have been used in the host program, the host CPU will read SVRIOAx(FIT)GY data periodically to the cache table.

When accessing from a Windows PC in a
SVR-IOAx(FIT)GY + CPU-CAxx(FIT)GY configuration
Data refresh time = time required to collect data from CPU-CAxx(FIT)GY +
collection time on the PC
= approx. 10 msec + approx. 10 msec
= approx. 20 msec (max. delay time)
When eight DI-16(FIT)GYs are connected to the CPU-CAxx(FIT)GY,
the data of "128 points x 8 units = 1024 points" can be collected in 20 msec.

(An AT compatible machine (Pentium III 500 MHz) in a Windows NT4.0 environment was used for the above calculation.)

Q. How many monitoring Java applets can be run simultaneously?

A. The protocol stack of the SVR-IOAx(FIT)GY provides 10 sessions for TCP/IP communication with monitoring Java applets.
For this reason, up to ten monitoring Java applets can each simultaneously monitor separate information.
As an additional ten sessions are provided for communication with the Web browser, simultaneous requests from up to ten Web browsers can be answered.

Q. Is it possible to see a specific SVR-IOAx(FIT)GY from outside a factory LAN?

A. Individual access such as this is possible provided that you can establish a network route for externally accessing an internal network. When accessing via a firewall, you need to be granted access rights.

Q. How long is the response between a PC terminal on the LAN and the SVR-IOAx(FIT)GY?

A. When using access functions, the response to requests from a host (e.g. PC) is about 1 to 2 msec on the SVR-IOA2(FIT)GY and about 2 to 3 msec on the SVR-IOA(FIT)GY.

Q. Does SVR-IOA(FIT)GY have a function for storing and managing collected data?

A. SVR-IOAx(FIT)GY does not. However, these functions are supported on the Monitoring & Control Server Unit SVR-MMF(FIT)GY.

Q. When using Java applets to perform monitoring, is it possible to direct output to another Device Module based on the input data?

A. On the SVR-IOAx(FIT)GY, you can only display individually input data and output specified data. The function in question can be achieved by the programming function on the SVR-MMF(FIT)GY.

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