FI-PC1000 SERIES

EMBEDDED FACILITY INTEGRATION CONTROLLER/SERVER

OVERVIEW

The FI-PC1000 controller is a compact, embedded controller/server platform. It combines integrated control, data-logging, alarming, scheduling and network management functions with Internet connectivity and web-serving capabilities. An FI-PC1000 makes it possible to control and manage external devices over the Internet and present real time information to users in web-based graphical views.

The FI-PC1000 is a member of the Circon Facility Integrator™ suite of Java-based controller/server products, software applications and tools, which are designed to integrate a variety of devices and protocols into unified, distributed systems. Facility Integrator products are powered by the Niagara^{AX} Framework®; the industry's first software technology designed to integrate disparate systems and devices into one seamless system. Niagara supports a wide range of protocols including LonWorks™, BACnet™, Modbus, oBIX and Internet standards. The AX Framework also includes integrated network management tools to support the design, configuration, installation and maintenance of integrated networks.

APPLICATIONS

The FI-PC1000 is ideal for smaller facilities, remote sites and for distributing control and monitoring throughout large facilities. The FI-PC1000 also supports a wide range of field buses for connection to remote I/O and stand-alone controllers. In small facility applications, the FI-PC1000 can be all you need for a complete system.

The FI-PC1000 serves data and rich graphical displays to a standard web browser via an Ethernet LAN or remotely over the Internet, dial-up, or GPRS modems. In large facilities, multi-building applications, and large-scale control systems, AX Supervisor Software can be used to aggregate information (real-time data, history, alarms, etc.) from multiple FI-PC1000s into a single, unified application. The AX Supervisor can manage global control functions, support data passing over multiple networks, connect to enterprise level software applications and host multiple, simultaneous client workstations connected over the local network, the Internet, dial-up, or GPRS modems.

ORDERING INFORMATION

Part Number: 52-0039 (FI-PC1064-ENT, FI-PC1128-ENT)

FEATURES

- → Embedded Power PC platform @ 250 MHz
- → Standard: Two RJ-45 Ethernet Ports, one RS-232 port and one RS-485 port
- → Integration platform for multiple device and system protocols: supports LonWorks, BACnet, FOX, Modbus, oBIX and many proprietary/legacy protocols
- → Versatile: Fully-customizable with an array of software drivers and custom modules
- → Reliable: All program data is backed up in nonvolatile EEPROM; battery backup
- → Fast: On-board Ethernet communication provides rapid data transmission
- → Run stand-alone control, energy management, and multi-protocol Integration
- → Expandable I/O with optional 16 and 34 point I/O Modules
- → Optional memory: 64MB or 128MB of SDRAM
- → Adaptable for standalone applications or as part of a networked operation

CIRCON

FI-PC1000 SERIES

SPECIFICATIONS

PLATFORM

PowerPC 405EP 250 MHz processor

FI-PC1064: 64MB SDRAM & 64 MB Serial Flash

FI-PC1128: 128MB SDRAM & 64 MB Serial Flash

128 KB Static RAM

Battery Backup – 5 mins. typical; shutdown begins within 10 secs.

Real-time clock – 3 month backup max via battery

COMMUNICATIONS

2 Ethernet Ports – 10/100 Mbps (RJ-45 Connectors)

1 RS 232 Port (9 pin D-shell connector)

1 RS 485 non isolated port (3 Screw Connector on base board)

OPERATING SYSTEM

QNX RTOS

IBM J9 JVM Java Virtual Machine

Niagara^{AX}

POWER SUPPLY

NPB-PWR - 24 Volt AC/DC power supply, DIN rail mounted

Wall Power Modules (Note: All modules are universal input 90 – 240 volts, 50/60 Hz.; the model numbers below represent the various plug configurations only):

- FI-PC-WWPM-120-120 VAC, 50- 60Hz US
- FI-PC-WWPM-230-230 VAC, 50-60Hz

OPTIONAL COMMUNICATION CARDS

FI-PC-LONCARD - Optional78 Kbps FTT10 A LON Adapter

FI-PC-232 - Optional RS-232 port adapter with 9 pin D-shell connector

FI-PC-485 - Optional dual port RS-485 adapter; electrically isolated

FI-PCLCD - On-Board LCD Interface

CHASSIS

Plastic, Din rail or screw-mount chassis, plastic cover

Cooling: Internal air convection

Dimensions: 6.313” (16.04 cm)W x 4.820” (12.24 cm) H x 2.438” (6.19 cm) D

ENVIRONMENT

Operating temperature range: 0° to 50°C (32°F to 122°F)

Storage Temperature range: 0° to 60°C (32°F to 140°F)

Relative humidity range: 5% to 95%, non-condensing

MOUNTING

You must remove the FI-PC1000 cover to install this unit. The cover snaps onto the base with four plastic tabs (two on each end). To remove the cover, press in the four tabs on both ends of the unit and lift the cover off. To replace the cover, orient it so the cutout area for communications ports are correct, and then push inwards to snap in place. Mount the FI-PC1000 in a horizontal position. It is necessary to remove the cover before mounting. Mount on a 35mm wide DIN rail. The FI-PC1000 unit base has a molded DIN rail slot and locking clip. The following procedure provides step-by-step DIN rail mounting instructions for the FI-PC1000:

- Securely install the DIN rail using at least two screws, near both ends of the rail.
- Position the FI-PC1000 on the rail, tilting to hook DIN rail tabs over one edge of the DIN rail.
- Push down and in to force the DIN rail clip to snap over the other edge of the DIN rail.
- To prevent the FI-PC1000 from sliding on the DIN rail, place a screw in two of the four mounting tabs in the base of the FI-PC1000.

WARNING: Do not mount in a location subject to electrical noise. This includes the proximity of large electrical contactors, variable frequency drives, electrical machinery, welding equipment, spark igniters and any high-voltage-producing equipment.

AGENCY LISTINGS

UL 916

C-UL listed to Canadian Standards Association (CSA)

C22.2 No. 205-M1983 “Signal Equipment”

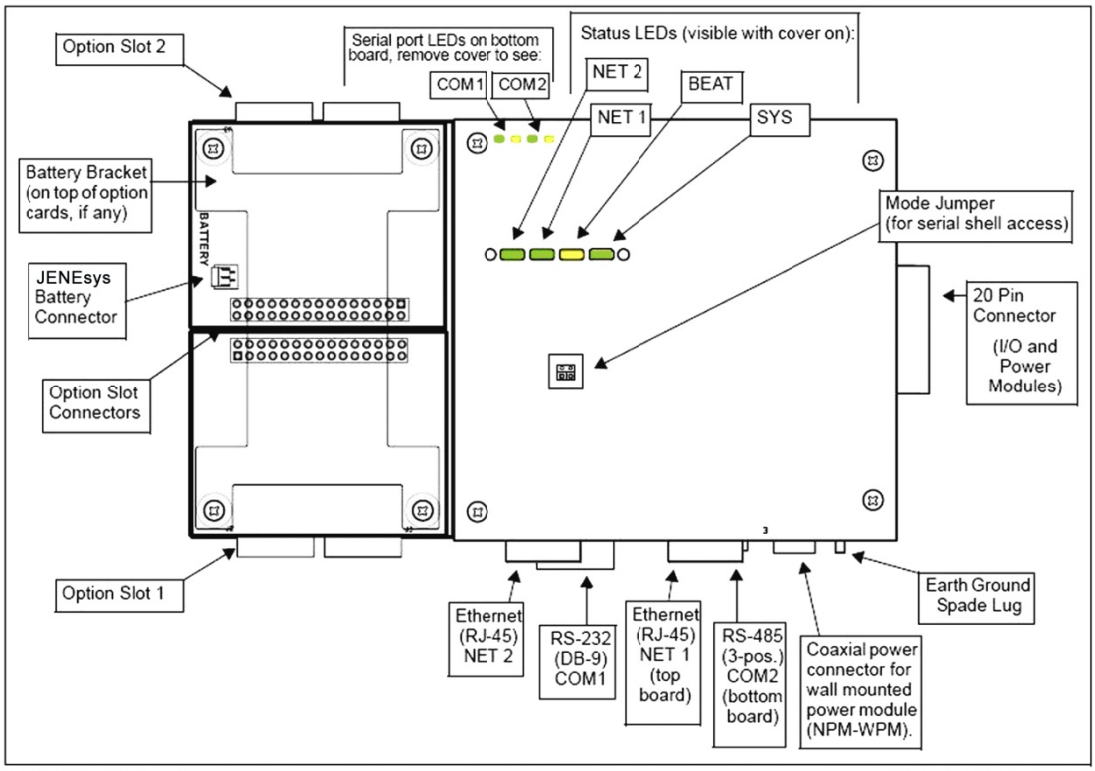
CE

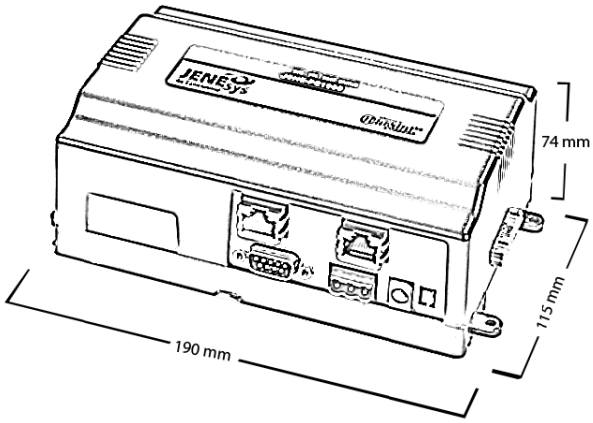
FCC part 15 Class A

C-Tick (Australia)

FI-PC1000 SERIES

SPECIFICATIONS





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