



## GE Fanuc Intelligence Solutions

### Combining the Best of GE Fanuc Software and Hardware

When GE Fanuc Automation's proven, industrial hardened computers come bundled with our best-in-class software applications, the result is Intelligence – a hardware/software combination that provides unbeatable flexibility, power and reliability for even the harshest plant floor environments.

Whether you require touch-screen or a full function integrated keypad, this packaged hardware and software solution provides an excellent choice for your system. The power and flexibility of our automation

software applications, along with the rugged NEMA 4 construction and extensible functionality of our hardware units, make these combinations ideally suited for the most demanding industrial applications.

An important part of GE Fanuc Automation's Process Execution and Supervisory Control family of Intelligent Production Management solutions, our Intelligence offerings combine many of our best hardware and software capabilities to precisely meet your needs.

imagination at work





## Intelligence: Features and Benefits

### A Complete Solution With Bundled GE Products

- Hardware and software tested and supported by the factory
- Minimizes start-up issues and saves you time
- Single point of contact for ordering and global support
- Built and Supported by General Electric, one of the world's largest and most innovative companies
- Part of GE Fanuc's *Process Execution and Supervisory Control* family of Intelligent Production Management solutions
- Designed with Six Sigma quality methodology to maximize product value for your business
- Combines many of our powerful software applications with our high quality hardware products
  - iFIX®
  - CIMPLICITY® HMI
  - iHistorian®
  - infoAgent™
  - VisualSPC™
  - Manager
  - iBatch™
  - CIMPLICITY Machine Edition
  - OpenProcess
- Award-winning iGlobalCare™ Complete Support available, featuring 24x7 emergency assistance, product upgrades, extensive knowledge resources, and much more.

### Full-Featured Industrial Computers that are Rugged and Reliable

- Industrial hardened computers designed for multiple environments
  - CE
  - UL
  - NEMA 4 / IP65
- Reduced panel space and enclosure requirements
- Expansion slots and extensive connectivity to existing systems
- A controlled product roadmap and lifespan
- Designed for continuous operation, 24 hours a day, 7 days a week

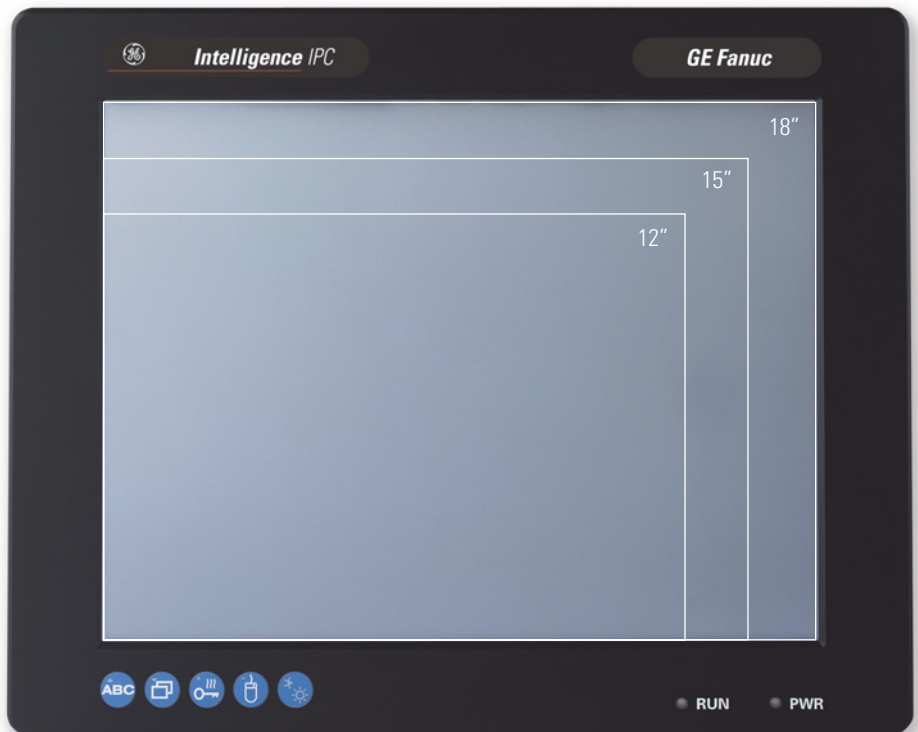
### Powerful Automation Software that is Flexible and Scalable

- Market leading functionality and information management
- Powerful distributed client/server architectures
- Easy-to-use development environments
- Integration of plant floor systems with ERP and MES systems
- Extensive functionality
- Flexible designs
- Windows XP / 2000 / NT based

### The Ideal Foundation for Plant Intelligence When Combined With GE Fanuc's Award Winning HMI/SCADA Solutions (iFIX and CIMPLICITY HMI)

- Real-time data collection and management
- Object-oriented graphics
- Alarming and alarm management
- Historical Data Collection in any relational database
- Trending of real-time and historical data
- Statistical Process Control (SPC) tools
- Report generator on time and event basis
- Power Tools for extended capabilities
- Scripting capabilities for individual adaptation of applications
- Dynamic screen localization
- Distributed, high-performance networking
- OLE for Process Control (OPC) client and server support
- ODBC support
- SQL / ODBC API for easy integration to relational databases
- Support for Microsoft SQL Server database

Available in 12, 15, and 18-inch Models



# Intelligent Production Management (IPM)

## Optimizing Operational Performance

Intelligent Production Management (IPM) is a growing category of technologies designed to manage – and ultimately improve – every aspect of the manufacturing production process. It includes a comprehensive group of solutions designed to help users at all levels of the organization perform critical production functions more efficiently and effectively.

IPM hardware and software applications span a broad spectrum of functionality to manage key areas of the production lifecycle – from controlling plant floor processes to analyzing and sharing performance data to managing equipment assets throughout the organization. Ultimately, IPM represents an opportunity for companies to reduce costs, increase productivity and improve quality by optimizing the performance of their production processes.

IPM solutions can be categorized into four core functional areas, which can be implemented separately or as part of a fully integrated plant-wide solution:

### Asset Management

Asset Management software solutions enable manufacturers to realize tremendous gains in equipment effectiveness through proactive and targeted equipment management. Asset Management solutions allow Production and Maintenance Managers to identify and track physical assets in order to perform scheduling and maintenance tasks with greater efficiency. Equipment usage, maintenance and repair operations, asset costs and more can be traced, viewed and controlled using these applications.

### Plant Intelligence

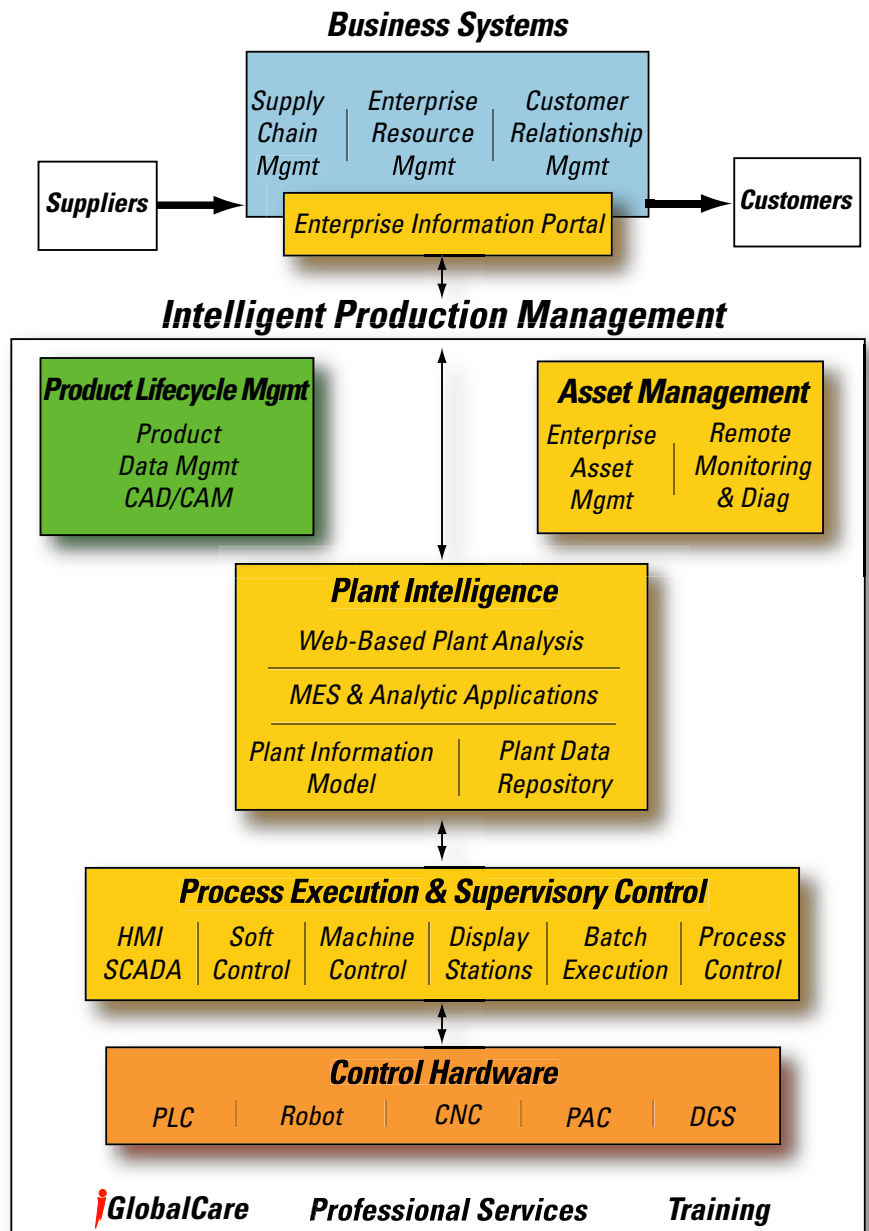
Plant Intelligence software applications are an integrated set of solutions that provide a new level of insight into operational performance, allowing decision makers to make business sense out of plant data in real-time. These high-impact applications give Production Managers the information and analysis they need to make important real-time decisions that dramatically improve their performance. They are critical tools for companies seeking to gain a competitive edge through improved operations, collaborative production and corporate accountability.

### Process Execution & Supervisory Control

These are the software applications which allow Operators and Process Engineers to better manage their production processes. Serving as a conduit for both communicating with the hardware and extracting real-time data from the industrial processes they control, Process Execution & Supervisory Control solutions help manufacturers visualize plant floor operations, perform supervisory automation and deliver the production data that feeds reliable, up to date information to the higher-level analytic applications. As a result, manufacturers can increase production, maximize quality and efficiency and improve regulatory compliance through user accountability.

### Control Hardware

From industrial-hardened PCs and CNC systems to PLCs and robotics, these are the durable assets that are used to physically manufacture products, maintain the flow of materials and protect the safety and quality of what is being produced.



Intelligent Production Management (IPM) integrates all key areas of the production management lifecycle, giving you greater connectivity, analysis and control over your operation. **Intelligence Solutions** are part of GE Fanuc's **Process Execution and Supervisory Control** family of IPM solutions.

## ***GE Fanuc Intelligence – Combining the best in software and hardware solutions***

When it comes to automation solutions, today's industrial environments demand the best of both worlds – rugged hardware and powerful software. GE Fanuc Automation's award winning software applications are now available as an installed solution on our industrial hardened computer systems. This robust combination provides the advanced functionality and superior reliability that are required on the plant floor.

### ***High Quality Hardware Solutions***

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A powerful software application needs a reliable, high performance and factory supported hardware solution in order to provide the greatest value for your business. GE Fanuc industrial computers provide the perfect complement to keep your applications running smoothly. Our high-value industrialized computers are designed with your harsh environment in mind. The combination of advanced software and reliable hardware provides unprecedented value in price/performance.

#### ***Intelligence IPC – Touch Panels***

Intelligence Touch Panel industrial computers are full featured and offer an unbeatable combination of design flexibility, power, and reliability in a touch screen solution. The resistive touch-screen is extremely accurate, making it possible to touch even the smallest area with precision. The rugged NEMA 4 / IP65 construction and extensive functionality of these units makes them ideal for the most demanding industrial applications. Their efficient design results in reduced panel space and enclosure requirements. Five built-in system access keys provide access to a fully integrated soft keyboard, and Windows functionality overcomes the inconvenience of typical touch screen products that commonly require the user to resort to a keyboard and mouse.

With UL and CE Agency approvals, this popular family of hardware has global acceptance. These industrial computers are available in 12, 15, and 18-inch models with either standard or high performance processors.

#### ***Intelligence IPC – Panel C***

The Panel C industrial computer is a high performance computer designed for maximum reliability and connectivity. A full alphanumeric keypad plus a suite of dedicated function buttons make it a perfect fit for users who require more flexibility in their systems.

The Panel C offers a NEMA 4 / IP65 front panel making it a perfect fit for wet, dirty, and other types of harsh environments. While the unit's enclosure is formed of metal, it is also lightweight, weighing in at less than 20 pounds, allowing it to meet stringent specifications for shock and vibration.

In the unlikely event of a failure, field replaceable items are quick and easy to access. The hard drive, power supply, and expansion cards are easily replaced, saving you valuable time. In addition to the PCI and ISA slots, the unit provides front access to a Compact Flash slot and two USB ports, plus optional connectivity directly into GE Fanuc CNCs via I/O link. This makes the Panel C an excellent choice for machine tool applications. The Panel C industrial computer is available with a 15-inch screen and a high performance processor.

A bundled Intelligence solution from GE Fanuc takes the worry out of selecting technically compatible hardware and software and finding support for the combined solution. Combining the power of our software with an industrial computer running Microsoft® Windows operating systems, this integrated software and hardware solution provides everything you need to create a powerful tool for your business.

The result is a complete bundled solution that is tested and supported by the factory – providing added value, minimizing start-up concerns, and saving you time.

### ***Robust Software Solutions***

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From powerful information management tools to advanced HMI visualization and operator interface functions, a software solution from GE Fanuc will help you reduce development costs, lower project life-cycle expenses, and provide for faster and easier application development.

GE Fanuc Intelligence combines the unique strengths of our hardware and software offerings, providing a bundled solution that uniquely fits your needs. Many of our most powerful Intelligent Production Management (IPM) solutions are available, including products from our Process Execution & Supervisory Control and Plant Intelligence families of applications.

#### ***Process Execution & Supervisory Control***

##### **HMI/SCADA**

GE Fanuc's Intelligence solutions are the ideal platform for visualization, automation and control. By combining our rugged hardware units with our powerful software applications, these powerful products are designed to uniquely suit your needs for either process or discrete environments.

- **iFIX** – iFIX is designed from the ground-up to be more secure, more powerful and more versatile than ever before in addressing your process oriented applications. iFIX, with an information rich automation oriented Function Block Database combined with a robust and extensible graphics environment, is a tremendous option for meeting all your supervisory control and data acquisition needs.

iFIX features significant functionality including features created specifically to address the electronic signature and advanced audit trail needs of regulated industries. However, this added functionality empowers you to introduce new levels of security and accountability into any application in your organization, regardless of industry. Some sample markets ideally suited to iFIX include water/wastewater, food and beverage, pharmaceutical, metals, oil and gas, mining and others with a process orientation.

- **CIMPLICITY HMI** – CIMPLICITY HMI is designed with advanced functionality that establishes a solid foundation for a robust, powerful HMI interface and is the best option for applications with a greater discrete manufacturing orientation. A true client/server architecture and open-system design offers fast, easy integration. CIMPLICITY HMI gives you the ability to grow from a single computer node to a plant-wide monitoring and control system providing real-time information from the factory floor to all levels of the enterprise.

CIMPLICITY HMI offers powerful operator interface and machine control functionality. Several markets and applications that are ideally suited to CIMPLICITY HMI include automotive, aerospace, plant floor, HMIs, discrete manufacturing, machining, semiconductor, CNC, Motion Control, and Consumer Packaged Goods among others.

Both products leverage the latest web technologies to provide you with visibility into the key metrics you need to run your manufacturing operations efficiently and effectively. This data is made available to one of the many Web-enabled display



devices on the market today. Whether it is a standard web browser, hand-held PDA, wireless bar code reader or industrial hardened CE device, you get real-time access to the important information needed to operate your business.

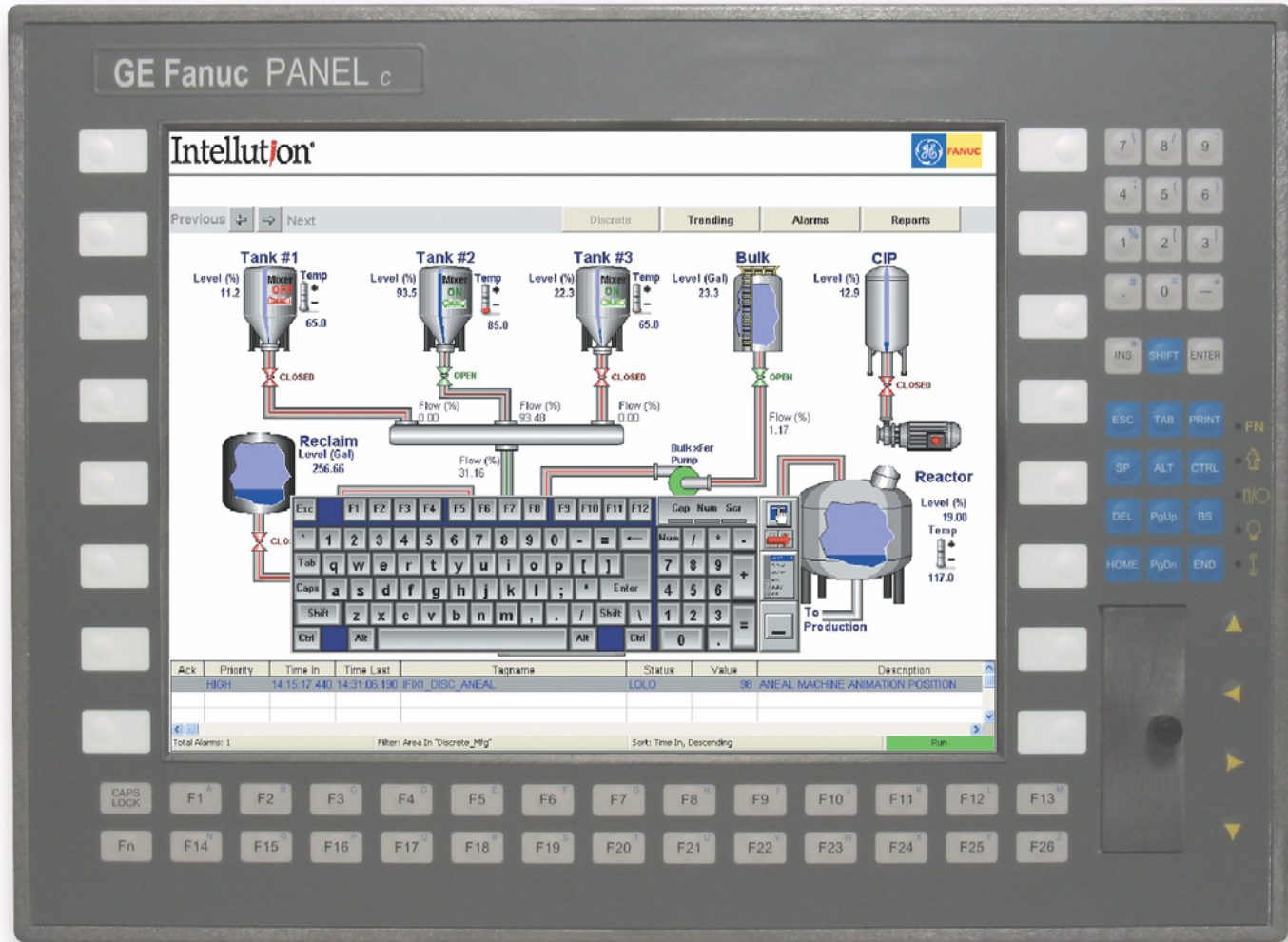
#### Other Process Execution Applications

In addition to our two powerful HMI/SCADA applications, GE Fanuc Intelligence can be bundled with several of our other Process Execution & Supervisory Control software solutions.

- **Manager** – Advanced Management and Control Software with powerful capabilities including security, version control, audit trails, central storage and automated backup and recovery.
- **iBatch** – Powerful S-88 based production management software that allows users to boost efficiency, increase ROI and meet regulatory requirements.
- **CIMPLICITY Machine Edition** – A software solution that provides direct machine control with powerful HMI functionality through a PC-based automation engine – all with upward data connectivity.
- **OpenProcess** – An integrated process control solution for continuous control strategy development and process visualization.

#### Intelligent IPC – Touch Panel Ports, Expansion Slots and Drives





### Plant Intelligence Applications

In addition, GE Fanuc Intelligence is available with many of our high-powered Plant Intelligence software applications.

- **iHistorian**® – Our best-in-class plant-wide data historian that collects, archives and distributes tremendous volumes of real-time, plant floor process information at extremely high speed.
- **infoAgent**™ – A breakthrough web-based portal system that provides advanced analysis and visualization capabilities for your production data.
- **VisualSPC**™ – A complete shop floor quality data collection and analysis solution.

### Intelligence Solutions:

#### World-Class Hardware and Software Combination

With GE Fanuc Automation's Intelligence solutions, you have access to an integrated offering that combines our industry-leading hardware platform and our powerful software applications. As an important part of our Process Execution and Supervisory Control family of Intelligent Production Management solutions, Intelligence provides a proven and high performance visualization and control solution for even the harshest plant floor environments.

### Intelligent IPC – Panel C Ports, Expansion Slots and Drive Connections



## Technical Information

	Touch Panel IC5002x	Touch Panel IC5005x	Touch Panel IC5008x	Panel - C IC5105x
Display				
Type (resolution)	TFT 12.1" (800 x 600)	TFT 15.1" (1024 x 768)	TFT 18.1" (1080 x 1024)	TFT 15.0" (1024 x 768)
Brightness	300 cd/m2	250 cd/m2	200 cd/m2	200 cd/m2
Lifetime	50,000 hours	70,000 hours	70,000 hours	50,000 hours
Touch	Resistive Five wire connected to COM4	Resistive Five wire connected to COM4	Resistive Five wire connected to COM4	Resistive Eight Wire connected to COM3 (Optional)
System Keys	Five external keys, Soft keyboard software	Five external keys, Soft keyboard software	Five external keys, Soft keyboard software	F1-F26 Keys, plus 16 Selection Buttons (2 x 8), Full Function Keyboard (102 Key Equivalent)
Multicolor LEDs	Two: PWR, Run	Two: PWR, Run	Two: PWR, Run	Five: PWR, Lock Caps, FN, HDD/Error, CF card
PC-Data				
Processor Celeron / Pentium	Socket 370-FC PGA 750 MHz Celeron/933 MHz PIII	Socket 370-FC PGA 750 MHz Celeron/933 MHz PIII	Socket 370-FC PGA 750 MHz Celeron/933 MHz PIII	Socket 370-FC PGA 1Ghz PIII
Memory	128/256 MB SDRAM DIMM	128/256 MB SDRAM DIMM	128/256 MB SDRAM DIMM	256-512 MB SDRAM DIMM
Network	Ethernet 10/100 Base-T, RJ45	Ethernet 10/100 Base-T, RJ45	Ethernet 10/100 Base-T, RJ45	Ethernet 10/100 Base-T, RJ45
CD-ROM and Floppy Drives	Yes	Yes	Yes	External Connection
Free Slots	Two shared ISA/PCI	Two shared ISA/PCI, One PCI	Two shared ISA/PCI, One PCI	One shared PCI/ISA, One PCI
Ports	COM1/2/3 (RS232/RS-422/RS-485 compatible), LPT1, Keyboard PS/2, Mouse PS/2, Video			COM1,2: RS232, LPT1, PS/2 Keyboard, PS/2 Mouse, CompactFlash, Video, RJ45 Ethernet, External Floppy and IDE, IDE/Floppy Power connection, Optional I/O - Link.
	1 USB	2 USB	2 USB	3 USB
System Supervision	CPU and Chassis fan, CPU over temp, on-board NTC			CPU Fan, CPU Overtemp, System Voltage Monitoring
Operating Systems	Windows NT/2000			Windows NT/2000
Power Supply	115/230 VAC, 100 W	115/230 VAC, 100 W	115/230 VAC, 100 W	115/230 VAC, 280W
Certification	UL1604, CE, NEMA 4, IP65	UL1604, CE, NEMA 4, IP65	UL1604, CE, NEMA 4, IP65	UL1604, CE, NEMA 4, IP65
Temperature	0-45°C	0-45°C	0-45°C	0-50°C
Width x Height x Depth Overall Dimensions (inches)	13.00 x 10.55 x 7.20	15.35 x 12.28 x 6.14	17.40 x 14.61 x 6.30	18.85 x 13.86 x 5.91

## Intelligence Capabilities

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- Complete hardware and software bundle
- Tested and supported by the factory
- Full featured, high performance computers
- Industrial hardened computers
- Powerful HMI/SCADA functionality

## The GE Fanuc Family of Solutions Includes:

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### Asset Management

**EAM**  
**Remote Monitoring & Diagnostics**

### Process Execution & Supervisory Control

**CIMPLICITY. HMI**  
**DataViews.**  
**FIX.**  
**I/O Drivers**  
**iClientTS.**  
**iFIX.**  
**Intelligence Solutions**  
**Manager**  
**OpenProcess.**

### Plant Intelligence

**iBatch.**  
**iHistorian.**  
**iInfoAgent.**  
**iWorkInstruction.**  
**Proficiency for Manufacturing.**  
**Tracker**  
**VisualSPC.**

### Control Hardware

**CNC & Machine Tools**  
**Communications & Networking**  
**Embedded Computers**  
**Industrial Computers**  
**Motion Control**  
**PLC, Controllers & I/O**

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### GE Fanuc Automation Information Centers

**USA and the Americas: 1-800-GE FANUC**  
**or (434) 978-5100**

**Europe, Middle East and Africa: (352) 727979-1**

**Asia Pacific: 86-21-3222-4555**

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### Additional Resources

For more information, please visit the GE Fanuc web site at:

**[www.gefanuc.com](http://www.gefanuc.com)**

