



## PAC8000 Controllers

The PAC8000 Controllers are the latest addition to GE Fanuc Intelligent Platforms' family of controllers.

The PAC8000 Controllers are designed specifically to provide a solution where a controller needs to be field mounted in the extreme environments found in process applications.

PAC8000 Controllers, with their rugged and redundancy characteristics will help you improve your operational performance and productivity for a sustainable advantage.

### Powerful Open Controllers

The PAC8000 Controllers consist of a Process Controller, Logic Controller, and Hybrid Controller which combines the capabilities of both. These controllers provide a tight control loop response, generating a control output in response to input data within 100 ms.

Ethernet Bus Interface Modules (EBIM) provide for communications between controllers and remote I/O.

### Environmental & Hazardous Area Operation

PAC8000 Controllers can go where other controllers cannot. They can be field mounted and subjected to the following:

- -40°C to +70°C operating range
- ISA Level G3 corrosion
- 30G shocks and 5G vibration
- Operation in Class I, Division 2 and Zone 2 hazardous areas with I/O module field wiring extending into Division 1 and Zone 1/I/O areas

### Peer-to-Peer Communications

PAC8000 Controllers communicate directly with each other and share data on a peer-to-peer basis without having to route data through a centralized database or controller.

- critical information can be shared efficiently between controllers

### HART Support

PAC8000 Controllers can pass HART information from smart field devices to a separate PC workstation running asset management software applications to remotely manage smart instrument configuration and calibration.

- HART pass through from smart field devices
- HART data and diagnostics can also be used directly in control applications
- Reduces:
  - commissioning time
  - process downtime
  - loop maintenance costs using field device diagnostics

### Controller Redundancy

Application reliability is improved with controller redundancy.

- Redundant controllers in same carrier for increased reliability and small footprint
- Redundant controllers operate in parallel, checking status multiple times through the processing loop, enabling the backup controller to continuously monitor the health of the master controller, thereby assuring a rapid and bumpless change over, as required
- A redundant controller is also capable of receiving a firmware upgrade in the field

### Network Redundancy

Network redundancy helps assure stable and consistent communications.

- The controller has two high speed Ethernet ports that use Fault Tolerant Ethernet to provide redundant communications
- Each port can be connected to an independent LAN which is continuously monitored for its integrity. If the primary port detects a network failure, traffic is immediately switched to the other LAN to maintain full communications

### Engineering Tools

The Workbench provides an integrated project development environment coupled with development modules and tools and a comprehensive set of diagnostic utilities.

- This development environment centralizes project engineering including I/O (Instrument Index) and control strategy configuration
- A comprehensive function block diagram library for addressing advanced process control requirements is provided
- Supports all five IEC 61131-3 programming languages (Ladder Logic Diagram, Structured Text, Instruction List, Sequential Function Chart and Function Block Diagram) plus Flow Chart



# Ordering Information

## Controllers & Carriers

Part Number	Description	Part Number	Description
8410-NS-PS	Node services power supply monitor	8521-LC-MT	Logic Controller
8521-EB-MT	Ethernet BIM	8521-PC-MT	Process Controller
8521-HC-MT	Hybrid Controller	8750-CA-NS	Carrier, simplex or redundant, power monitoring

## 8000 General Purpose I/O \*

Part Number	Description	Part Number	Description
8101-HI-TX	8-channel AI, 4-20mA with HART	8116-DO-AC	8-channel DO, 20-250Vac non-isolated, module powered
8102-HO-IP	8-channel AO, with HART for 4-20mA	8117-DO-DC	8-channel DO, 2-60Vdc isolated, unpowered
8103-AI-TX	8-channel AI, 4-20mA	8118-DO-AC	8-channel DO, 20-250Vac isolated, unpowered
8104-AO-IP	8-channel AO, 4-20mA	8119-VI-05	8-channel Voltage Input, 1-5Vdc
8105-TI-TC	4-channel THC/mV input	8121-DI-DC	16-channel DI, 24Vdc non-isolated, module powered
8106-TI-RT	4-channel RTD input	8122-DI-DC	16-channel DI, 24Vdc isolated, sinking
8109-DI-DC	8-channel DI, 24Vdc isolated, sinking	8123-PI-QU	2-channel Pulse Quadrature Input
8110-DI-DC	8-channel DI, 24Vdc non-isolated, module powered	8125-DI-DC	32-channel DI, non-isolated, module-powered
8111-DI-AC	8-channel DI, 115Vac isolated, sinking	8127-DI-SE	32-channel SOE module
8112-DI-AC	8-channel DI, 115Vac non-isolated, module powered	8129-IO-DC	8-channel supervised DI
8113-DI-AC	8-channel DI, 230Vac isolated, sinking	8132-AI-UN	8-channel Isolated Universal AI
8114-DI-AC	8-channel DI, 230Vac non-isolated, module powered	8133-HI-TX	8-channel supervised AI with HART
8115-DO-DC	8-channel DO, 2-60Vdc non-isolated, module powered		

## Field Terminals and Accessories

Part Number	Description	Part Number	Description
8601-FT-NI	Field terminal, non-incendive (Div 2)	8610-FT-NA	Field terminal, non-arcing (Div 2)
8602-FT-ST	Field terminal, standard	8611-FT-FU	Field terminal, non-arcing, fused (Div 2)
8603-FT-FU	Field terminal, non-incendive, fused (Div 2)	8615-FT-4W	Field terminal, 4wire (current sinking)
8604-FT-FU	Field terminal, fused	8617-FT-NI	Field Terminal, non-incendive, for 16 ch DI
8605-FT-TC	Field terminal, thermocouple	8618-FT-MT	16-pin Mass Termination Assembly (Div 2)
8606-FT-RT	Field terminal, RTD	8619-FT-MT	44-pin Mass Termination Assembly (Div 2)
8607-FT-TC	Field terminal, 8-channel with T/C	8650-FT-PX	32-channel PX/Switch FTA for 8125/7
8608-FT-NI	Field terminal, 8-channel, non-incendive		

## 8000 I/O Carriers

Part Number	Description	Part Number	Description
8707-CA-08	8 module carrier	8710-CA-04	4 module carrier
8709-CA-08	8 module carrier, 64-address system		

## 8000 I/O Carrier Cables

Part Number	Description	Part Number	Description
8020-CE-RH	Carrier extender, right hand	8080-FC-10	16-pin cable for 8618 (1m)
8021-CE-LH	Carrier extender, left hand	8081-FC-20	16-pin cable for 8618 (2m)
8041-CC-35	Carrier extension cable, 0.35m	8082-FC-30	16-pin cable for 8618 (3m)
8042-CC-85	Carrier extension cable, 0.85m	8085-FC-10	20 + 24 pin cables for 8619 (1m)
8043-CC-12	Carrier extension cable, 1.2m	8086-FC-20	20 + 24 pin cables for 8619 (2m)
8044-CC-20	Carrier extension cable, 2m	8087-FC-30	20 + 24 pin cables for 8619 (3m)

## 8000 I/O Power Supplies and Components

Part Number	Description	Part Number	Description
8413-FK-DN	8913/4 PS DIN Rail Mounting Kit	8914-PS-AC	10A 24VDC A/C Input P/S
8414-FK-SU	8913/4 PS Surface Mounting Kit	BQ2320-9R-EX	24 to 12VDC Voltage Converter
8913-PS-AC	5A 12VDC & 5A 24VDC A/C Input P/S		

\*Note: Intrinsically Safe I/O also available.

### GE Fanuc Intelligent Platforms Information Center

Headquarters:  
1 800 GEFANUC  
1 800 322 2616  
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Global Regional phone numbers  
Are available on our website  
[www.gefanuc.com](http://www.gefanuc.com)

### Additional Resources

For more information, please visit the  
GE Fanuc Intelligent Platforms website at:

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



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