

## DESCRIPTION

The **EC 3100** is an embedded system controller designed to direct the operation of automated machinery. When programmed with an operating sequence, the microcomputer-based technology of the **EC 3100** provides flexible and accurate control of a wide variety of industrial processes. Installation is uncomplicated and easily tailored to different applications. Using the graphical user interface (GUI), the program can easily be configured to meet specific system requirements.

The **EC 3100** incorporates many selectable features designed to make operation of the controller both easy and accurate. These functions are selected using a menu-driven protocol presented on the front panel display.

Provision for process parameter entry and data monitoring are conveniently available through the front panel push-button keyboard. Process data, system status and error messages are shown on the front panel display. The status of the controller, including the state of the sixteen inputs and sixteen outputs, can also be indicated on the display.

A single RS-485, full duplex, multidrop serial port is provided to communicate with interface compatible devices. An Ethernet port is available to provide computer compatible data from the factory floor.

This controller design is a member of a family of products proven in the field through years of production service in the harshest of environments.



## BENEFITS

**Configurable** – The **EC 3100** is a general purpose embedded system controller which can be programmed to provide accurate control of industrial processes.

**Flexible** – Installation and set-up is easily accomplished for a variety of related industrial systems. One control program can be designed to serve the needs of a family of similar processes

The module is designed to be mounted inside a variety of NEMA style enclosures.

The single module is surrounded by a steel case enclosure to prevent contamination in hostile environments. All terminations to the controller are made using the supplied interface cable set.

**Universal** – The **EC 3100** has been successfully incorporated into systems manufactured by a wide range of equipment providers.

**Reliable** – The **EC 3100** is reliable in harsh environments. The surrounding enclosure prevents contamination in dirty environments, while the signal filtering design prevents disruption from electrical noise.

**Simple to Use** – Process parameters are easy to program using the front panel keyboard.

**Keyboard** – The keyboard features 32 integrated push-buttons with tactile feedback for confident operation. The graphics are printed on the back of the non-glare surface to protect from scratching and wear. The overlay may be modified to comply with specific system or process requirements.

# Embedded System Controller

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## SPECIFICATION

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### Display:

Type: Dot matrix, high visibility, vacuum fluorescent, alpha-numeric.

Format: Two lines by sixteen characters.

Zero Blanking: Leading zero suppression provided.

Process Annunciators: The status of each of the sixteen inputs and sixteen outputs is indicated by single point LED annunciators.

### Digital Input

Sixteen inputs are available. Input function is defined by the application software. The standard input accepts 60 - 230 Vac signals. Other input specifications are available upon request.

### Digital Output

Sixteen outputs are available. Output function is defined by the application software. The standard output controls 115 - 230 Vac at up to 1 Amp. Other output specifications are available upon request.

### EMI / RFI Suppression

Hardware and software filtering for rejection of mechanical and electrical interference.

### Power Requirements

Input Voltage: 115 - 230 Vac.

Frequency: 50 / 60 Hz.

Power: 10 watts, maximum, not including output load currents

### Environmental

Temperature Range:

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

Storage: -20°C to 80°C (-5°F to 176°F)

Humidity: 95% RH, non-condensing

### Physical

Size: 12" W x 7" H x 2" D  
(305 mm x 180 mm x 50 mm)

Mounting:

Screw pattern around front panel.

Termination:

Interface cable connectors located on bottom edge of housing. Cables provided with controller.