



# SERIES SIX

GEK-83523

## PROGRAMMABLE CONTROLLERS

### ISOLATED 115V AC/DC INPUT MODULE

#### GENERAL DESCRIPTION

The Isolated 115V AC/DC Input module detects bipolar AC and DC voltages supplied by, and controlled by, the user. The features and benefits of this module are summarized in Table 1.

A module contains six inputs, each with its own neutral circuit. Each input circuit is isolated from every other input circuit and from the Series Six CPU circuitry.

An input circuit contains a rectifier, a noise filter to reduce common mode transients, an opto-isolator, and a Schmitt Trigger (one-shot), which fires to indicate that a voltage (AC or DC) in a specified range has been detected. An active input circuit is indicated by a Light-Emitting Diode (LED), visible through a lens on the faceplate.

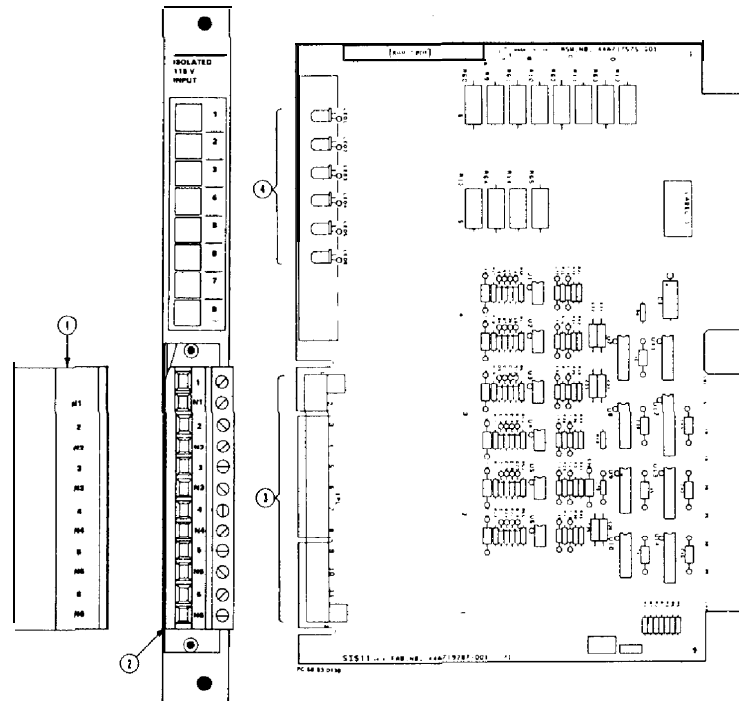
Refer to Figure 1 for the Isolated AC/DC Input specifications.

TABLE 1. FEATURES AND BENEFITS

FEATURES	BENEFITS		
LED for each input. Color-coded faceplates.	Allows visual inspection of I/O operations.		
Optically-coupled inputs.	Provides electrical isolation between user power supplies and Series Six Programmable Controller.		
Complete isolation of each input from the other input circuit (hot and neutral input connections).	Allows the mixing of up to six inputs on the same module that are powered by up to six different independent AC or DC voltage sources.		
<b>APPLICATIONS</b> (Monitor The Inputs From:) <table style="width: 100%; border: none;"> <tr> <td style="width: 50%; border: none;"> <ul style="list-style-type: none"> <li>- Power Protective Relays</li> <li>- Motor Controls</li> <li>- Relays/Contactors</li> </ul> </td> <td style="width: 50%; border: none;"> <ul style="list-style-type: none"> <li>- Limit Switches</li> <li>- Toggle Switches</li> <li>- Cam Switches</li> </ul> </td> </tr> </table>		<ul style="list-style-type: none"> <li>- Power Protective Relays</li> <li>- Motor Controls</li> <li>- Relays/Contactors</li> </ul>	<ul style="list-style-type: none"> <li>- Limit Switches</li> <li>- Toggle Switches</li> <li>- Cam Switches</li> </ul>
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- Dimensions:
  - Circuit Board:
    - 8.15 x 11.0 (inches)
    - 208 x 280 (mm)
  - Faceplate:
    - 12.46 x 1.175 (inches)
    - 317 x 30 (mm)
- Power Requirements: 5 Vdc, 104 mA maximum  
Supplied by I/O power supply.  
(2 units of load)  
The user must supply power for the input devices.
- Number of Inputs: Six (6) independently isolated from each other and the Series Six common. Each input has its own neutral connection.
- Humidity: 5 to 95% (non-condensing)
- Operating Temperature: 0 to 60C  
(At the outside of rack)
- Storage Temperature: -20° to + 80°C
- Isolation: Series Six common to user common:  
Tested at 1500 volts AC 50/60 Hz for 1 min.  
Rated at 240 volts AC 50/60 Hz continuous.  
One input circuit to any other:  
Rated at 240 Vac 50/60 Hz continuous.
- Input Requirements:
  - On Range 90 to 130 Vac/dc
  - Off Range 0 to 30 Vac/dc
- Input loading: 20K  $\Omega$  (5.5 mA at 115V)
- Delay Times:
  - OFF to ON 6-20 msec
  - ON to OFF 20-50 msec

FIGURE 1. SPECIFICATIONS



- ① Terminal Cover
- ② User Terminal Block: Accepts connections from user input devices, See the "Installation" section and Figure 3 of this Data Sheet.
- ③ Circuit Board Terminal Block: Mates with the user terminal block.
- ④ Input Lights: 1 through 6
  - ON: The associated input is in the ON state.
  - OFF: The associated input is in the OFF state.

FIGURE 2. USER ITEMS

### INSTALLATION

The Isolated AC/DC Input module can be installed in an I/O rack or the I/O rack section of the Model 60 Central Processor Unit (CPU). Follow these steps:

1. Set the Dual-In-Line-Package (DIP) switches directly behind the card slot on the rack backplane to establish the correct correspondence between the input terminals on this module and a group of six consecutive input numbers in the user program. For further information on I/O DIP-switch settings, refer to the Installation Section of the Series -Six Installation and Maintenance Manual (GEK-25361).
4. Refer to Figure 3. Connect one side of the user circuit to the appropriate input terminal (1 through 6). Connect the other side of each user circuit to the appropriate neutral terminal (N1 through N6). Each input terminal can accommodate one No. 12 AWG wire or two No. 14 AWG wires.
5. Guide the terminal cover onto the top of the terminal block, then slide it downward over the terminals.

A markable area is provided on the plastic lens beside each LED for noting the function or source of each input. The faceplates are color coded:

- Orange: 115v

#### NOTE

No inputs are assigned to the last two reference numbers.

2. Use the extraction/insertion tool furnished with the Series Six CPU to insert (or remove) this module in the card slot.
3. Guide the faceplate over the circuit board so that the terminals near the bottom of each are mated; secure the faceplate to the rack using the thumb-screws at the top and bottom.



Voltages from user field devices may be present on the faceplate terminals, even if the power supply in the I/O rack is off. Care should be taken when handling the faceplate of this module or any wires connected to it.

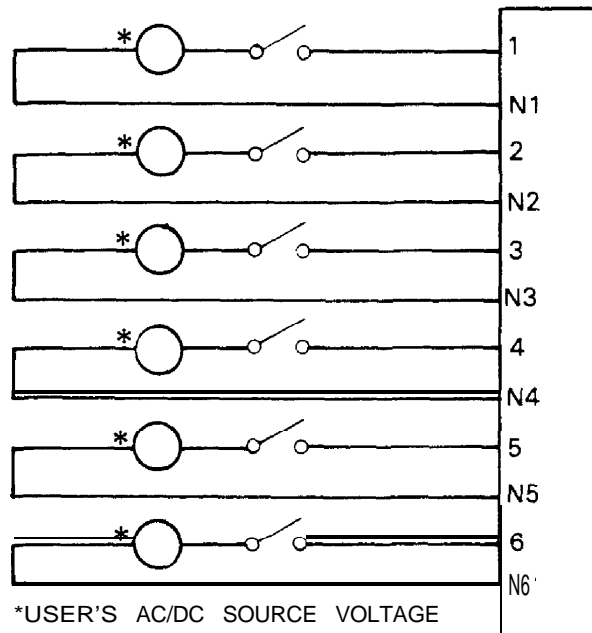


FIGURE 3. TYPICAL USER INPUT CONNECTIONS

## ORDERING INFORMATION

<u>Module</u>	<u>Circuit Board &amp; Faceplate</u>	<u>Circuit Board</u>	<u>Faceplate</u>
Isolated 115V AC/DC Input Module	IC600BF810A	IC600YB810A	IC600FP810A

For further information, contact your local GE Fanuc sales office.

## CATALOG NUMBER REVISION SUFFIX

The equipment listed above with catalog numbers as shown or with a higher alpha suffix in the last position is designed for UL applications as auxiliary control devices. This equipment is a direct replacement for equipment with a prior alpha suffix.

The UL symbol on the nameplate means the product is listed by Underwriters Laboratories Inc. (UL Standard No. 508, Industrial Control Equipment, subsection Electronic Power Conversion Equipment.)

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