



SERIES SIX

PROGRAMMABLE CONTROLLERS

INTERRUPT INPUT MODULE

GEK-83524A

INPUTS
INTERRUPT

GENERAL DESCRIPTION

The Interrupt Input module allows the user to initiate the execution of a subroutine by activating an input. (A subroutine can also be initiated by a user-program function.) By Series Six convention, a subroutine is a sequence of functions separate from the main program that is solved, only when required, by the Programmable Controller.

The Interrupt Input module can be utilized in a CPU I/O station or a Local I/O station. A Model 60 CPU or Model 600 CPU can support one Interrupt Input module, whereas a Model 6000 CPU can support two modules: one in a primary I/O chain, another in an auxiliary I/O chain. The Interrupt Input module features and benefits are summarized in Table 1.

Each module provides eight inputs. The inputs are organized into four groups of two, with an isolated neutral for each group. In series with each input is an LED that indicates current flow through the input circuit.

The inputs can respond to rising-edge transitions or falling-edge transitions. The edge response of an individual input is jumper-selectable by the user .

In a primary I/O chain, the module inputs, Nos.1-8 (I/O points I1001-I1008), correspond to subroutines, Nos.1-8, resident in the user program. However, in an auxiliary I/O chain (which can only be connected to a Model 6000 CPU), the module inputs, Nos.1-8 (I/O points I1009-I1016), correspond to subroutines, Nos.9-16, in the user program.

Interrupts are serviced by the CPU on a first-come, first-serve basis. When two or more interrupts occur simultaneously, the lowest-numbered interrupt is serviced first.

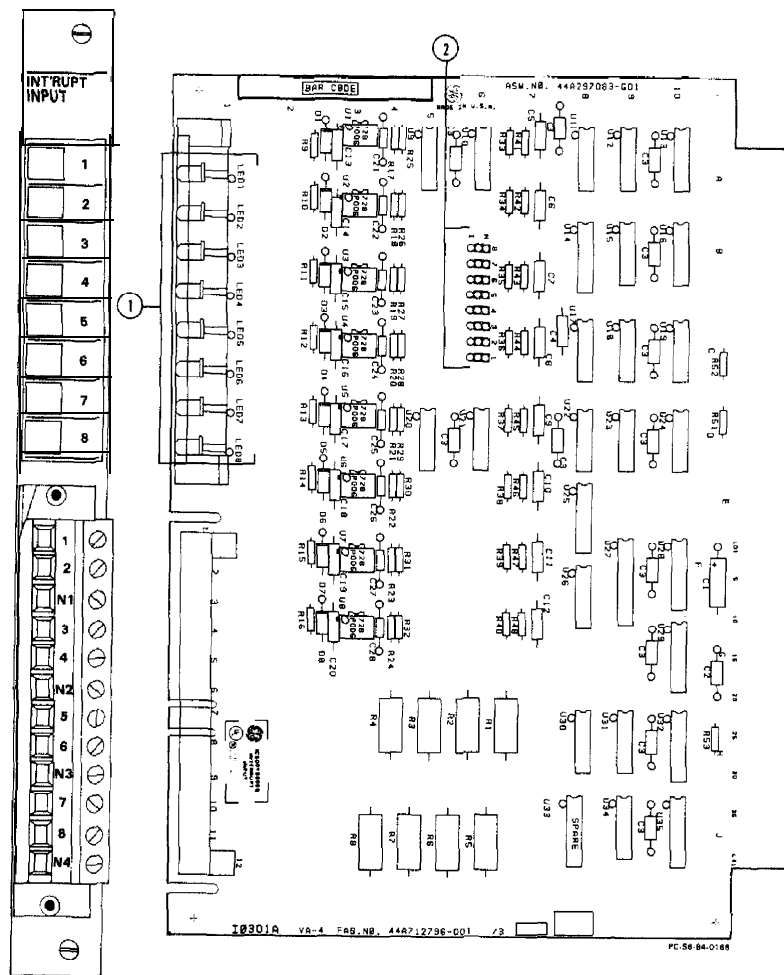
Refer to Figure 1 (next page) for Interrupt Input module specifications.

TABLE 1. FEATURES AND BENEFITS

FEATURES	BENEFITS
300 usec Input Filtering.	Rapid response for high-speed input processing.
Four Isolated sets of two inputs.	Can use a different power source for every 2 inputs.
Jumper-selectable response to user device.	Responds to off-to-on transitions or on-to-off transitions.
APPLICATIONS	
<ul style="list-style-type: none"> - Position Control - Emergency Stops 	<ul style="list-style-type: none"> - High-Speed Packaging

<ul style="list-style-type: none"> - Dimensions: Circuit Board: 8.15 x 11.0 x 1.20 (inches) 208 x 280 x 31 (mm) Faceplate: 12.46 x 1.175 (inches) 317 x 30 (mm) - Power Requirements: 5V DC, 225 mA (Max.) (Supplied by I/O Rack Power Supply) - Storage Temperature: 0 - 70°C 	<ul style="list-style-type: none"> - Operating Temperature: 0 - 60°C - Humidity: 5% - 95% (non-condensing) - Card Filtering: Off-On Delay: 300u s (max.) On-Off Delay: 8 ms (min.) 10 ms (typ.) 12 ms (max.) - User Power Source: 10-30V DC Interrupt "OFF" Condition: 3V DC Interrupt "ON" Condition: 10V DC
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FIGURE 1. SPECIFICATIONS



① LED 1 → LED 8: LED numbers correspond to interrupt-input numbers. Active LED (ON) indicates current flow through the input circuit.

Jumper 1 – Jumper 8: Jumper numbers correspond to interrupt-input numbers. Jumper at "N" terminal causes corresponding interrupt input to respond to rising edge. Jumper at "I" terminal causes corresponding interrupt-input to respond to falling edge.

FIGURE 2. USER ITEMS

INSTALLATION

The Interrupt Input module can be installed in any position of an I/O rack in a CPU I/O station or Local I/O station. (A Model 60 CPU-based system contains I/O slots within the CPU rack.) The module address is hard-wired on the circuit board to equal 125, decimal (FD, hexadecimal). Consequently, the values of the DIP switches on the rack backplane adjacent to the I/O slot are ignored by the CPU.

Before inserting the module in the I/O rack, the user should inspect the placement of the eight, blue-plastic jumpers on the circuit board (Refer to Figure 2, User Item No. 2). These jumpers allow the user to select the edge responses of the eight inputs. The module is shipped from the factory with the eight inputs set to respond to rising-edge transitions. (The jumpers are inserted between middle terminals and the N terminals.) The user can direct any given input to respond to a falling-edge transition by inserting the associated jumper between the middle terminal and the I terminal.

We recommend that you use the extraction/insertion tool furnished with your CPU to remove or install the circuit board. With the board in place in the rack, the edge connector on the faceplate should be slipped over the circuit board so that proper contact is made. You can then

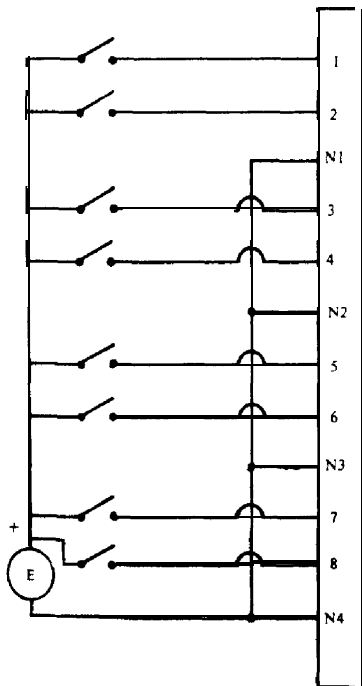
secure the faceplate to the rack using the thumbscrews at the bottom and top.

Refer to Figure 3, Typical User Connections. The Interrupt Input module inputs are connected to user-provided 10 – 30V DC power supplies. The switching device that activates an input must be in series with the power supply. In this scheme, one side of the switching device is connected to the input, the other side is connected to the positive terminal of the 10 → 30V DC supply; the negative terminal of the power supply is connected to the neutral terminal associated with the input.

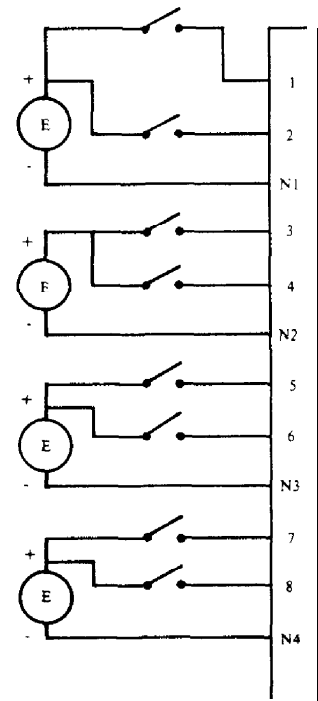
For the purpose of electrical isolation, as few as two inputs can be connected to a single 10 → 30V DC supply. Otherwise, up to eight inputs can be connected to a single 10 → 30V DC supply.

NOTE

We recommend that you power-down your Series Six Programmable Controller before installing or removing the Interrupt Input module. A parity error could result at any address in the I/O structure if you do not power-down as recommended.



NOTE
No Isolation: All inputs on one 10 – 30V DC supply



NOTE
Maximum Isolation: Two inputs on each 10 → 30V DC supply

FIGURE 3. TYPICAL USER CONNECTIONS

ORDERING INFORMATION

Circuit Board & Faceplate

IC600BF808B

Circuit Board

IC600YB808B

Faceplate

IC600FP808A

CATALOG NUMBER REVISION SUFFIX

The equipment listed above having the catalog numbers shown and the same equipment having a higher alpha suffix is designed for listing by UL for use as auxiliary control devices. The equipment is a direct replacement for equipment having the same catalog number but a lower alpha suffix.



This 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.)

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

GE FANUC AUTOMATION NORTH AMERICA, INC., CHARLOTTESVILLE, VIRGINIA

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