Series Six Plus
Programmable Controller

GFK-0174

March 1988

115 VAC Input Module
32 Inputs per Module

General Description

The 115 VAC Input module detects bipolar AC voltage supplied by, and controlled by, the user. The features and benefits of this module are summarized in Table 1.

A module contains thirty two inputs, divided into four groups (A, B, C, D), each group sharing a neutral circuit (A corn, B corn, C corn or D corn).

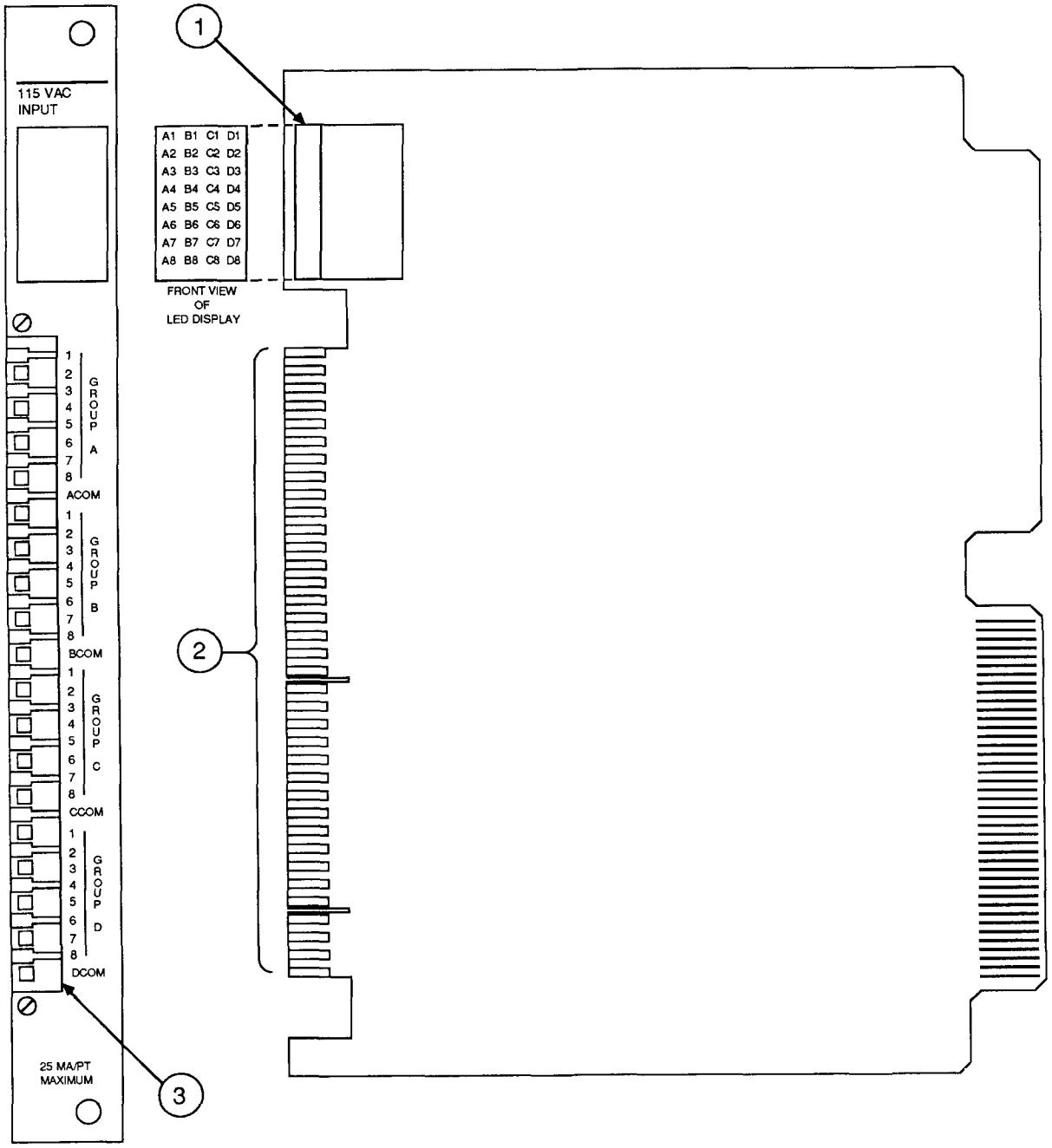
An input circuit contains an AC divider, a noise filter to reduce common mode transients, an opto-isolator, and a Schmitt trigger (one-shot), which fires **to** indicate that an AC **voltage** in a specified range has been detected. An active input circuit is indicated by a Light-Emitting Diode (LED),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

Refer to Table 2 for the I15 VAC Input module specifications.

Table 1. FEATURES AND BENEFITS

FEATURES	BENEFITS
High Density Input: 115 VAC 47 Hz.- 63 Hz.	Useful in a variety of applications.
Alpha numeric LED for each input (on logic side)/Color-coded faceplate.	Allows visual inspection of I/O operations.
Thirty two inputs per module in four isolated groups of eight.	Efficient use of I/O rack space with flexibility in multiple common applications.
Optically-coupled inputs.	Provides electrical isolation between user power supplies and Series Six Plus Programmable Controller.
APPLICATIONS *Monitor: *Limit Switches *Proximity Switches *CamSwitches *Toggle Switches *Relays	

a42381



1. LED PACKAGE CONTAINS LEDS AND ASSOCIATED CIRCUITRY.
   LED ON: THE ASSOCIATED INPUT IS IN THE ON STATE.
   LED OFF: THE ASSOCIATED LED IS IN THE OFF STATE.
   AN ON LED BACKLIGHTS THE GROUP DESIGNATION AND CIRCUIT NUMBER FOR EACH INPUT,e.g. A1 THROUGH A8. THIS ALLOWS THE CIRCUIT NUMBERS TO BE READ DIRECTLY THROUGH THE FACEPLATE LENS.

2. CIRCUIT BOARD CONNECTIONS MATE WITH USER TERMINAL BLOCK.

3. USER TERMINAL BLOCK:
   ACCEPTS CONNECTIONS FROM USER INPUT DEVICES. SEE THE INSTALLATION SECTION OF THIS DATA SHEET.

Figure 1. USER ITEMS

InstalIation

The 115 VAC Input module can be installed in an I/O rack or the I/O rack section of the Series Six Plus 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 first group of 8 input terminals on this module and the first of four consecutive groups of eight input numbers in the user program. For further information on I/O DIP-switch settings, refer to the Installation Section **of** the Series *Six Plus Programmable Controller User's Manual* (GEK-96602).
2. Use the extraction/insertion tool furnished with the Series Six Plus 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 thumbscrews at the top and bottom.
4. Refer to Figure 2. Connect one side of the user circuit to the appropriate input terminal (1 through 8). Circuits connected to inputs 1 through 8 of a group must have their opposite sides connected to the common for that group.

Each input terminal can accommodate one No. 12 AWG wire.

WARNING

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.**

a42382

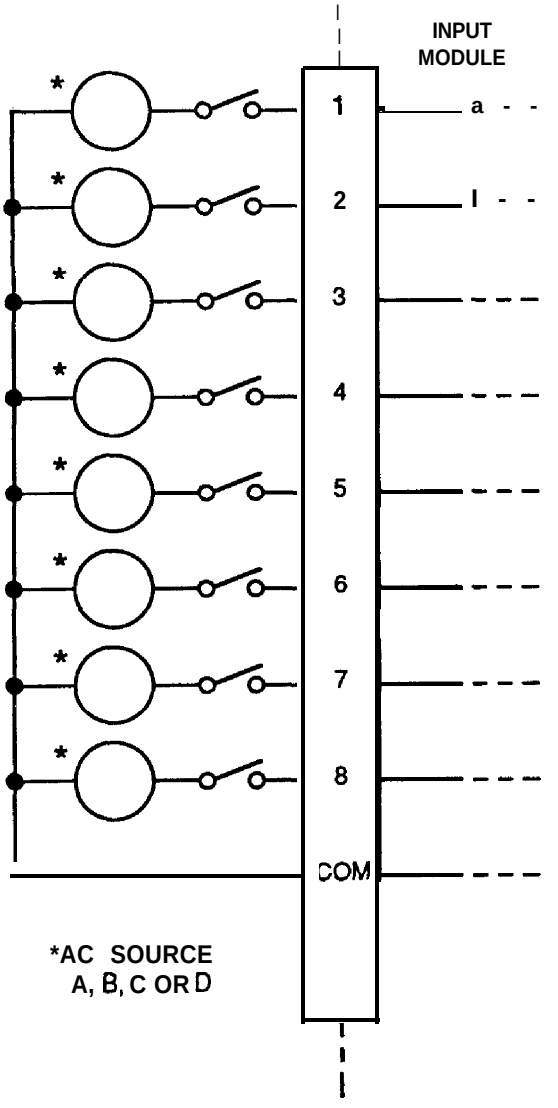


Figure 2. TYPICAL USER INPUT CONNEC TIONS

Table 2. SPECIFICATIONS

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:	5V DC, 104 ma maximum
Supplied by I/C power supply. The user must supply power for the input devices.	
Number of Inputs:	Thirty-two (32) in four groups (A, B, C, D) of 8 inputs (l-8) with independent common, neutral connections.
Operating Temperature:	0° to 60° (At the outside of rack)
Storage Temperature:	-20 to +80°C
Humidity:	5 to 95% (non-condensing)
On Range:	80-132VAC
Off Range:	0-30VAC
Input Current:	9.8 ma @ 115 VAC, 50 Hz.
(Typical)	11.7 ma @ 115 VAC, 60 Hz.
ON Delay:	l0-20 ms
OFF Delay:	20-40 ms
Isolation (any group common to Series Six Plus common - also between input groups when two or more independent user power supplies are used for one module):	
Continuous:	240 VDC or 50/60 Hz. AC
Transient:	1,500 V peak, non-repetitive
Noise Immunity to:	Showering arcs per NEMA ICS 2.230.40 Surges per ANSI C37.90.9 5W transmitter, 27-450 MHz
Radiated Interference:	**Complies** with FCC Rule 15 for Class A computing devices

Table 3, ORDERING INFORMATION

DESCRIPTION	CATALOG NUMBER
Circuit Board **and** Faceplate	IC600BF832K
Faceplate	IC600FP832K

The equipment listed above having the catalog number shown is designed for listing **by** UL for **use** as an auxiliary control device.

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.)

For further information, contact your local GE Fanuc North America Distributor or sales office.