GE Series 90-30 Series Service Manual

IC693ALG222

1. Description

The GE Fanuc IC693ALG222 is a Series 90-30 module. This module is an analog voltage input module featuring Sixteen (16) Single-ended input channels, receiving 0 to 10 V (unipolar) and –10 to +10 V (bipolar) input signals. This module is installed to any slot of a 5-slot and 12-slot Series 90-30 baseplate.

2. Specifications

Specification	Value
Range	**-10 to +10 V, 0 to 10 V**
Part	**Number IC693ALG222**
Series	**Series 90-30**
Brand	**GE Fanuc**
Isolation	**1500 Volts RMS field to the logic side**
Input	**Types Unipolar and bipolar**
LEDs	**2 green LEDs ("Module OK" and "Power Supply OK"**
Product	**Lifecycle Status* Discontinued/Obsolete**
Product	**Description Analog Voltage Input**
Resolution	**at 0V to +10V 2.5 mV (1 LSB = 2.5 mV)**
Resolution	**at –10V to +10V 5 mV (1 LSB = 5 mV)**
Linearity	**< 1 LSB**
Input	**Filter Response 41 Hz (single-ended mode) 82 Hz (differential mode)**
Product	**Description Analog Voltage Input**
No	**of Channels 16**
Update	**Rate 13 ms for all channels**
The	**IC693ALG222 is a GE Fanuc Series 90-30 PLC module. This module is an analog voltage input module that is designed to accept up to Sixteen (16) single-ended or up to Eight (8) differential Voltage signals, particularly, 0-10VDC (unipolar) and -10VDC - +10VDC (bipolar) signals.**

3. Product Information

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Technical specifications for IC693ALG222

Range -10 to +10 V, 0 to 10 V

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Update Rate 13 ms for all channels

The IC693ALG222 is a GE Fanuc Series 90-30 PLC module. This module is an analog voltage input module that is designed to accept up to Sixteen (16) single-ended or up to Eight (8) differential Voltage signals, particularly, 0-10VDC (unipolar) and -10VDC - +10VDC (bipolar) signals.

The IC693ALG222 channels are individually configurable. For single ended configuration, each channel has an update rate of 6 msec while 3 msec for differential configuration. AT 0-10VDC, the module’s resolution is 2.5 mV (1 LSB = 2.5 mV) while at -10VDC - +10VDC, the module’s resolution is 5 mV (1 LSB = 5 mV). Regardless of the configured input type and wiring method, the module exhibits an absolute accuracy of ± 0.25% of full scale @ 25 Deg. Celsius or 77 Deg. Fahrenheit and ± 0.5% of full scale over specified operating temperature range with linearity of +/- LSB. For single ended configuration, the input filter response is 41 Hz while 82 Hz when operating in differential mode. This module has an internal maximum power consumption of 112 mA from the backplane +5 VDC bus and 41 mA from the backplane Isolated +24 VDC supply.

This module installed to any available slot of a 5-slot or 12-slot baseplate. Depending on the Series 90-30 CPU, the number of IC693ALG222 installation is limited to 4 in a system using CPUs 311, 313, or 323, 8 in a system using CPU331, 12 in a system using CPUs 340 or 341 and 51 in a system using CPUs 350 – 364. This includes remote I/O racks supported by the each of the specified CPU.

The IC693ALG222 analog voltage input module consumes 112 milliamps of current from the 5 Volts Bus which is located on the PLC. It also requires 41 milliamps of current to power up the on-board power converter which supplies the power to the user-side circuitry. The maximum number of 16-channel analog voltage input modules that can be installed in the system is 8 with GE CPUs 331 to 351. It can be installed in any I/O slot in a PLC baseplate. The IC693ALG222 analog voltage input module has 2 green LEDs that indicate the status of the module and the status of the power which is supplied by the users. They are the Module OK and Power Supply OK LEDs which flash to inform the users the status of the system. If the module is installed in the system, the configuration software of the module provides the facilities to read the module and configure it into the system.