GE Series 90-30 Series Service Manual

IC693ALG390

1. Description

The GE Fanuc IC693ALG390 is a Series 90-30 module. This module is an analog output module that features Two (2) voltage output channels, that delivers output voltage range of -10 to +10 VDC output signal with resolution of 2.5 mV (1 LSB = 2.5 mV), absolute accuracy of ± 5 mV at 25° C (77° F) and update rate of 5 msec.

2. Specifications

Specification	Value
Range	**-10 to +10 Volts**
Part	**Number IC693ALG390**
Series	**Series 90-30**
Brand	**GE Fanuc**
Product	**Lifecycle Status* Discontinued/Obsolete**
Product	**Description Analog Voltage Output**
Offset	**1 mV maximum, 0 to 60° C (32° to 140° F)**
Calibration	**Factory calibrated to 2.5 mV per count**
Product	**Description Analog Voltage Output**
No	**of Channels 2**
External	**Supply Voltage Range 18 to 30 VDC**
External	**Supply Voltage Ripple 10%**
Isolation	**1500 Volts RMS field to the logic side**
Update	**Rate 5 ms all channels**
Resolution	**2.5 mV**
Accuracy	**+/- 5 mV at 25 degrees Celsius**
Internal	**Power Consumption 32 mA at 5 VDC, 120 mA User Supplied 24 VDC**
The	**IC693ALG390 is a GE series 90-30 Programmable Logic Controller (PLC) module. This module is an analog output module that feature Two (2) output channels capable of providing -10 to +10 VDC voltage output signals. This module is ideally used for automatically and manually controlling closed loop control system as well as transmit signals to receiving and measuring instruments. I**

3. Product Information

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Technical specifications for IC693ALG390

Range -10 to +10 Volts

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Series Series 90-30

Brand GE Fanuc

Product Lifecycle Status* Discontinued/Obsolete

Product Description Analog Voltage Output

Offset 1 mV maximum, 0 to 60° C (32° to 140° F)

Calibration Factory calibrated to 2.5 mV per count

Product Description Analog Voltage Output

No of Channels 2

External Supply Voltage Range 18 to 30 VDC

External Supply Voltage Ripple 10%

Isolation 1500 Volts RMS field to the logic side

Update Rate 5 ms all channels

Resolution 2.5 mV

Accuracy +/- 5 mV at 25 degrees Celsius

Internal Power Consumption 32 mA at 5 VDC, 120 mA User Supplied 24 VDC

The IC693ALG390 is a GE series 90-30 Programmable Logic Controller (PLC) module. This module is an analog output module that feature Two (2) output channels capable of providing -10 to +10 VDC voltage output signals. This module is ideally used for automatically and manually controlling closed loop control system as well as transmit signals to receiving and measuring instruments. It may also be used with data loggers.

The IC693ALG390 module has a resolution of 2.5 mV wherein, 2.5 mV is equal to 1 LSB with absolute accuracy of ± 5 mV at 25° C (77° F) and offset of 1 mv maximum, 0 to 60° C (32° to 140° F). This module features an update rate of 5 ms on both channels which is directly affected by the I/O scan time and the structure of the user program. This module also has a built-in isolation between field side and logic side with rating of 1500 VDC.

This module may also be operated by supplying an external voltage supply range of 18 to 30 VDC with nominal supply of +24 VDC, from isolated, +24 VDC on backplane or user supplied voltage source, and +5 VDC from backplane with acceptable voltage ripple of 10%. Acceptable voltage ripple is 10%.

When CPU switches to STOP of RESET mode, this module may be configured to hold last-state value or provide 0VODC output. This configuration is set via the DEF0 jumper located on the removable terminal block. By default, the module is set to holding the last-state of the module.

The IC693ALG390 2-Channel Analog Voltage Output Module provides 2 terminal connectors to use with the user-supplied 24 Volts PLC power supply. This configuration allows the users to supply standby power and save the output values if the internal power supply is interrupted. In order to decrease the load on the PLC, the module voltage also can be supplied externally. There is an LED on the top faceplate of the module which glows when the power supply of the module is operating. The field connections must be wired with shielded instrumentation cables to minimize the capacitive load. It is recommended to connect shield to the Ground (GND) on the user terminal connector block. The IC693ALG390 2-Channel Analog Voltage Output Module also offers electrical isolation. If the CPU goes to the RESET or STOP mode, the module status becomes the default, 0 Volts, or Hold-Last-State status. The configuration jumper known as Jumper DEF0 can be used to select the desired state.