GE Series 90-30 Series Service Manual

IC693ALG223

1. Description

The GE Fanuc IC693ALG223 is a Series 90-30 module. This module is an analog current input module featuring Sixteen (16) Single-ended input channels, receiving 0-20 mA, 4-20 mA and 4-20 mA enhanced input signals. This module has a resolution of 12-bit, installed to any 5-slot or 10-slot baseplate.

2. Specifications

Specification	Value
Brand	**GE Fanuc**
Series	**Series 90-30**
Part	**Number IC693ALG223**
Range	**4-20 mA, 0-20 mA**
Accuracy	**0.25% at 25 degree Celsius**
Product	**Description Analog Current Input**
External	**Power 24 VDC**
Product	**Description Analog Current Input**
No	**of Channels 16**
Isolation	**1500 volts RMS field to the logic side**
Update	**Rate 13 ms all channels**
Resolution	**at 4-20 mA 4 microamps**
Resolution	**at 0-20 mA 5 microamps**
Input	**Impedance 250 ohms**
Input	**Filter Response 200 Hertz**
Internal	**Power Consumption 120 mA at 5 VDC, 65 mA, User Supplied 24 VDC**
The	**GE Fanuc Series 90-30 Programmable Logic Controller (PLC) module with catalog number IC693ALG223 is a Sixteen (16) channels, single ended, analog input module that is used to interface field devices and instrument that provide analog signals as representation to measurement of process variable. Specifically, each channel of the IC693ALG223 is configurable of receiving 0-20 mA, 4-20 mA and 4-20 mA enhanced signals. Some of the devices that are capable of providing these signa**

3. Product Information

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Technical specifications for IC693ALG223

Brand GE Fanuc

Series Series 90-30

Part Number IC693ALG223

Range 4-20 mA, 0-20 mA

Accuracy 0.25% at 25 degree Celsius

Product Description Analog Current Input

External Power 24 VDC

Product Description Analog Current Input

No of Channels 16

Isolation 1500 volts RMS field to the logic side

Update Rate 13 ms all channels

Resolution at 4-20 mA 4 microamps

Resolution at 0-20 mA 5 microamps

Input Impedance 250 ohms

Input Filter Response 200 Hertz

Internal Power Consumption 120 mA at 5 VDC, 65 mA, User Supplied 24 VDC

The GE Fanuc Series 90-30 Programmable Logic Controller (PLC) module with catalog number IC693ALG223 is a Sixteen (16) channels, single ended, analog input module that is used to interface field devices and instrument that provide analog signals as representation to measurement of process variable. Specifically, each channel of the IC693ALG223 is configurable of receiving 0-20 mA, 4-20 mA and 4-20 mA enhanced signals. Some of the devices that are capable of providing these signals are Transmitters, Variable Frequency Drive’s (VFD) speed feedback, data loggers, panel meters and other devices.

The IC693ALG223 is a single slot module that is installed to any slot of a Series 90-30 5-slot or 10-slot baseplate. Depending on the controller installed, the number of allowed instances of the IC693ALG223 varies. For Model 311, Model 313, and Model 323 system, up to Four (4) module instances is compatible. For Model 331 system, Eight (8) modules, Twelve (12) with Model 340 and 341 system and 51 in Model 351 and 352 systems.

The IC693ALG223 has 12-bit resolution with update rate of 13 msec for all 16 channels, absolute accuracy of ± 0.25% of full scale @ 25 Deg. Celsius (77 Deg. Fahrenheit): ± 0.5% of full scale over specified operating temperature range and linearity of < 1 LSB from 4 to 20 mA for 4 to 20 mA range and < 1 LSB from 100 µA to 20 mA for 0 to 20 mA and 4 to 20 mA Enhanced ranges. This module is designed with 1500 volts isolation capability between field side and logic side.

The IC693ALG223 16-Channel Analog Input Module comes with 200 Hertz of input filter response and 250 ohms of input impedance. The maximum number of analog current input modules that may be installed in the system is 4 with CPUs 311, 313, and 323, 8 with CPU 331 and 12 with CPUs 340 and 341. It has high levels of resolution and accuracy to deal with very sensitive analog signals. It can receive analog inputs from a variety of sensors such as level sensors, flow sensors, and temperature sensors. Each channels’ accuracy are 4 microamps of resolution in the 4 to 20 milliamps current range, 5 microamps of resolution in the 0 to 20 milliamps current range, and 5 microamps of resolution in the 4 to 20 enhanced milliamps current range. It uses an external power supply with a voltage range of 20 to 30 Volts DC and 10% supply voltage ripple. This module is designed to support a wide range of industrial signals