GE RX3i PacSystem Series Service Manual

IC695ALG708

1. Description

The IC695ALG708 is a PACSystem RX3i Programmable Automation Controller (PAC) non-isolated analog Input module formerly manufactured by GE Intelligent Platforms (GE IP) now under Emerson Automation. This module has Eight (8) output channels configurable for 0 to 20 mA and 4 to 20mA current signals and ±10V and 0 to 10V voltage signals. This module is installed to an RX3i

2. Specifications

Specification	Value
Brand	**GE Fanuc**
Series	**PACSystem RX3i**
Manufacturer	**Emerson Automation**
Part	**Number IC695ALG708**
Product	**Description Non-isolated analog output module**
Number	**of Channels 8**
No	**of Channels Eight (8)**
Voltage	**Range 0 to +10 Volts, -10 to +10 Volts**
Output	**signals, Current 0-20 mA; 4-20 mA**
Current	**Range 0 to 20 milliamps, 4 to 20 milliamps**
Output	**signals, Voltage +/-10VDC; 0-10 VDC;**
Isolation	**Voltage (Field to Backplane) 2550 Volts DC for 1 second**
Module	**resolution +/-10V: 15.9 bits, 0 to 10V: 14.9 bits, 0 to 20mA: 15.9 bits; 4 to 20mA : 15.6 bits**
Maximum	**Output Load 850 Ohms**
Data	**Format Floating point IEEE 32 bit; 16-bit integer in a 32-bit field**
Update	**Rate 8 milliseconds**
HART	**Protocol Not Supported**
Power	**Consumption 375 milliiamps at +3.3 Volts DC, 315 milliamps at +24 Volts DC (isolated)**
Analog	**Update Rate 8 milliseconds (approximate, all eight channels)**
Maximum	**Power Dissipation Within Module 7.25 Watts**
External	**Power Supply: 19.2V to 30V (24V nominal)**
External	**Power Supply +19.2 Volts to +**

3. Product Information

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Technical specifications for IC695ALG708

Brand GE Fanuc

Series PACSystem RX3i

Manufacturer Emerson Automation

Part Number IC695ALG708

Product Description Non-isolated analog output module

Number of Channels 8

No of Channels Eight (8)

Voltage Range 0 to +10 Volts, -10 to +10 Volts

Output signals, Current 0-20 mA; 4-20 mA

Current Range 0 to 20 milliamps, 4 to 20 milliamps

Output signals, Voltage +/-10VDC; 0-10 VDC;

Isolation Voltage (Field to Backplane) 2550 Volts DC for 1 second

Module resolution +/-10V: 15.9 bits, 0 to 10V: 14.9 bits, 0 to 20mA: 15.9 bits; 4 to 20mA : 15.6 bits

Maximum Output Load 850 Ohms

Data Format Floating point IEEE 32 bit; 16-bit integer in a 32-bit field

Update Rate 8 milliseconds

HART Protocol Not Supported

Power Consumption 375 milliiamps at +3.3 Volts DC, 315 milliamps at +24 Volts DC (isolated)

Analog Update Rate 8 milliseconds (approximate, all eight channels)

Maximum Power Dissipation Within Module 7.25 Watts

External Power Supply: 19.2V to 30V (24V nominal)

External Power Supply +19.2 Volts to +30 Volts DC

External Current input: 210 mA

Output Settling Time 2 milliseconds, 0 to 95% (voltage or current output)

Current draw 330mA maximum at 3.3V

Power Dissipation 7.25 Watts maximum (Vuser=24V)

Calibrated Accuracy Accurate to within 0.15% of full scale at 25degrees C Accurate to within 0. 25% of full scale at 60degrees C

The IC695ALG708 is an Eight (8) channel analog output module from the PACsystem RX3i Programmable Automation Controller (PAC) series. It is a single slot module with channels configurable to deliver output current signals such as 0-20 mA and 4-20 mA and voltage signals such as +/- 10 VDC and 0-10 VDC. The IC695ALG708 is now under Emerson Automation as the previous manufacturer, GE Intelligent Platforms (GE IP) has been acquired by the former. This module still provides an analog output with resolution that ranges 14.9-15.9 bits, depending on the output signal configured. Each channel of this module can be se set with individual alarm settings such as very low, low, high and very high alarm. Each output may also be clamped at specific high and low points which can be useful when an output channel is linked to a Proportional + Integral + Derivative (PID) controller output. Additionally, output biases may be added to fine tune or manually adjust the output to the user desired level. The IC695ALG708 has built-in module fault reporting capability as well as hold last state or output default settings. For CPU compatibility, any RX3i CPU may be used with this analog output module however, the CPU must have a firmware version 3.5 or later and must be configured using the Machine Edition Version 5.0 SP3 Logic Developer must be used to develop user programs. The IC695ALG708 requires an external 24 VDC poser supply to operate. Supply power must be directly connected to the module's terminal block. Compatible terminal block for use with this module are Box-style (IC694TBB032), Extended Box-style (IC694TBB132), Spring-style (IC694TBS032), or Extended Spring-style (IC694TBS132) Terminal Block.

The analog module that is known as the IC695ALG708 analog module is designed and produced by GE Fanuc and it is intended for use with the GE RX3i PACSystems devices. The module can be configured for different current and voltage output ranges and it is made to be installed in the universal backplane in the RX3i system. The IC695ALG708 module has 8 available output channels that can be customized for either voltage or current output operation. The supported voltage range of the module is 0 to +10 Volts or -10 to +10 Volts and the current range is 0 to 20 milliamps or 4 to 20 milliamps. All of the outputs are non-isolated and the module can be combined with several different terminal block types. The module's backplane requires a current rating of 375 milliamps at a voltage of 3.3 Volts. The IC695ALG708 module has an isolation voltage of 2550 Volts DC for the duration of one second and a maximum output load of 850 Ohms. The power dissipation rating of the module is up to 7.25 Watts and the power consumption rating is 375 milliamps at 3.3 Volts DC and it can reach up to 315 milliamps with an isolated power source rated at 24 Volts DC. The IC695ALG708 module uses an external power source with a voltage range of 19.2 to 30 Volts DC and it has an output settling time of 2 milliseconds. The module includes a variety of features that can improve the performance of the system. Some of these features are control of the alarm systems, channel configuration, detection of different alarm levels, error reporting, default values for holding the last state, and complete automatic calibration.