GE RX3i PacSystem Series Service Manual

IC695ALG808

1. Description

The IC695ALG808 is a PACSystem RX3i Programmable Automation Controller (PAC) isolated analog output 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 universal

2. Specifications

Specification	Value
Brand	**GE Fanuc**
Series	**PACSystem RX3i**
Manufacturer	**Emerson Automation**
Part	**Number IC695ALG808**
Product	**Description 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;**
Backplane	**Power Requirements 80 milliamps (maximum) at 3.3 Volts**
Module	**resolution +/-10V: 14 bits; 0 to 10V; 0 to 20mA / 4 to 20mA : 15 bits**
Isolation	**Voltage (Field to Backplane) 2550 Volts DC for 1 second**
Data	**Format Floating point IEEE 32 bit; 16-bit integer in a 32-bit field**
Maximum	**Output oad 1350 Ohms**
HART	**Protocol Not Supported**
Update	**Rate 8 milliseconds**
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: 160 mA**
Output	**Settl**

3. Product Information

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Technical specifications for IC695ALG808

Brand GE Fanuc

Series PACSystem RX3i

Manufacturer Emerson Automation

Part Number IC695ALG808

Product Description 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;

Backplane Power Requirements 80 milliamps (maximum) at 3.3 Volts

Module resolution +/-10V: 14 bits; 0 to 10V; 0 to 20mA / 4 to 20mA : 15 bits

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

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

Maximum Output oad 1350 Ohms

HART Protocol Not Supported

Update Rate 8 milliseconds

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: 160 mA

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

Current draw 360 mA maximum at 3.3V; 17 mA @ 5.0 VDC

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 IC695ALG808 is an analog output module from Emerson Automation, formerly manufactured by GE Intelligent Platforms (GE IP). This module comes with Eight (8) individually isolated output channels that are configurable to deliver 0-20 mA / 4-20 mA current signals and +/- 10 VDC / 0-10 VDC voltage signals. The IC695ALG808 can be used to deliver output signals to modulating devices Variable Frequency Drives (VFD), Control Valves, Dampers, Louvers and other devices. It may also be used to send signals to panel meters and data loggers that directly represent a specific variable for local readout and recording. The IC695ALG808 is compatible to a variety of terminal blocks such as Box-style (IC694TBB032), Extended Box-style (IC694TBB132), Spring-style (IC694TBS032), or Extended Spring-style (IC694TBS132). This module requires an external 24 VDC directly terminated to the module's terminal block to enable the module to deliver the desired output signals. All channels of the IC695ALG808 are software configurable. Other parameters that can be configured include alarm settings such as very low, low, high and very high alarm, module fault reporting, latching of alarm, defining alarm limits as well as setting of high and low alarm limit. Additionally, this module can be set with output bias to properly trim the output to achieve the required output to the process. The IC695ALG808 has output resolution of 15 bits when configured to deliver +/- 10VDC, 0-20 mA and 4-20 mA while 14-bits is achieved when configured for 0-10 VDC output signal. Additionally, it has analog update rate of 8 milliseconds on all channels.

The IC695ALG808 output module has been designed and manufactured by GE Fanuc and it is a powerful component that comes in industrial-grade housing with indicators for the module status, the field status, and the terminal block. The module has been developed for the RX3i PACSystems series and it is installed in the universal backplane of the system. The IC695ALG808 module is powered by an external source with a nominal voltage of 24 Volts DC and current of up to 600 milliamps. The module has 8 available channels that can be used for either voltage or current operation. All of the channels are analog and isolated. The supported terminal block types are spring-type, box-style, extended box-style, and extended spring-style terminal blocks. The IC695ALG808 output module operates within the voltage range of 0 to +10 Volts or -10 to +10 Volts, and its current range is 0 to 20 milliamps or 4 to 20 milliamps. The backplane of the module requires 80 milliamps of when it is connected to a 3.3 Volts rated power source. In addition to that, the module has a maximum output load of 1350 Ohms and it dissipates a maximum power of 7.25 Watts. In addition to that, the IC695ALG808 module includes current output overvoltage protection for a voltage of -30 Volts for 60 seconds and +30 Volts for 1 hour. The output gain drift of the module for the voltage output is 20 ppm per degree Celsius and it is 35 ppm per degree Celsius for the current output. The IC695ALG808 module features 2 milliseconds of voltage/current output time.