GE RX3i PacSystem Series Service Manual

IC695ALG106

1. Description

The IC695ALG106 is a PACSYstem RX3i Programmable Automation Controller (PAC), analog input module. This module is formerly manufactured by GE Intelligent Platforms (GE IP), now under Emerson Automation. This module features Six (6) isolated inputs individually configurable to receive voltage and current signals specifically, +/- 10V, 0 to 10V, +/- 5V, 0 to 5V, 1 to 5V and 0-20 mA, 4-

2. Specifications

Specification	Value
Manufacturer	**Emerson Automation**
Series	**PACSystem RX3i**
Product	**Description Analog input module**
Manufacturer	**GE Intelligent Platform (GE IP); Emerson Automation (Current)**
Part	**Number IC695ALG106**
No	**of Channels Six (6) individually isolated channels**
Part	**Number IC695ALG106**
Product	**Type Analog Input Module**
Product	**Description Analog input module**
Number	**of Inputs 6**
0-20	**mA; 4-20 mA; +/-20 mA; +/-10VDC; 0-10 VDC; +/-5VDC; 0-5 VDC and 1 - 5 VDC Input Data Format**
Analog	**input signal Voltage: +/- 10V, 0 to 10V, +/- 5V, 0 to 5V, 1 to 5V Current: 0-20 mA, 4-20 mA and +/-20 mA**
Input	**Type Current or Voltage**
Configurable	**as floating point IEEE 32 bit or 16-bit integer in a 32-bit field Channel update rate**
Analog	**input resolution 16-bits**
Power	**24 Volts DC Isolated Voltage from an External Source**
1	**ms Digital Resolution**
Data	**Format: Floating point IEEE 32 bit or 16-bit integer in a 32-bit field**
16	**bit Filter options**
Filter	**Options 8Hz, 12Hz, 16Hz, 40Hz, 250Hz, 1000Hz**
Flash	**Memory Supported**
8Hz,	**12Hz,**

3. Product Information

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Technical specifications for IC695ALG106

Manufacturer Emerson Automation

Series PACSystem RX3i

Product Description Analog input module

Manufacturer GE Intelligent Platform (GE IP); Emerson Automation (Current)

Part Number IC695ALG106

No of Channels Six (6) individually isolated channels

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Product Type Analog Input Module

Product Description Analog input module

Number of Inputs 6

0-20 mA; 4-20 mA; +/-20 mA; +/-10VDC; 0-10 VDC; +/-5VDC; 0-5 VDC and 1 - 5 VDC Input Data Format

Analog input signal Voltage: +/- 10V, 0 to 10V, +/- 5V, 0 to 5V, 1 to 5V Current: 0-20 mA, 4-20 mA and +/-20 mA

Input Type Current or Voltage

Configurable as floating point IEEE 32 bit or 16-bit integer in a 32-bit field Channel update rate

Analog input resolution 16-bits

Power 24 Volts DC Isolated Voltage from an External Source

1 ms Digital Resolution

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

16 bit Filter options

Filter Options 8Hz, 12Hz, 16Hz, 40Hz, 250Hz, 1000Hz

Flash Memory Supported

8Hz, 12Hz, 16Hz, 40Hz, 250Hz, 1000Hz Open Circuit Detection time

Response times 2 milliseconds (all four channels)

1 Sec. Overvoltage

Open Circuit Detection time 1 second maximum

+/-35 VDC continuous, maximum Overcurrent

Overvoltage +/-35 VDC continuous, maximum

+/-35mA continuous, maximum Calibration Interval

Overcurrent +/-35mA continuous, maximum

12 months Current draw

Current consumption 230 mA maximum @ 5.0V +5% / -2.5%, 320 mA maximum @ 3.3V +5% / -3%

230 mA maximum @ 5.0V +5% / -2.5%; 320 mA maximum @ 3.3V +5% / -3%

Product Lifecycle Status Active

Description

The IC695ALG106 is a PACSystem RX3i analog input module. This module features Six (6) isolated analog input channels that accept of variety of voltage and current standard signals such as +/- 10V, 0 to 10V, +/- 5V, 0 to 5V, 1 to 5V, and 0-20 mA, 4-20 mA and +/-20 mA, Voltage and Current signals, respectively. The IC695ALG106 has backplane current draw of 230 mA maximum @ 5.0V +5% / -2.5% and 320 mA maximum @ 3.3V +5% / -3%. From the isolated power supply, it has a current draw of 500 mA @ 19.2 V to 30 VDC. It can operate with PACSystem RX3i module with Central Processing Unit (CPU) version 5.0 or later. For configuration and programming of the module, applicable programming software is Proficy Machine Edition version 5.6 SP11 and later. The Machine Edition version 5.6 SP11 and later has a built-in analog to digital converter (ADC) with a conversion resolution of 16 bits with data converted to Floating-Point IEEE 32 bit or 16-bit integer in a 32-bit field register. Each input channel has configurable filter options specifically 8Hz, 12Hz, 16Hz, 40Hz, 250Hz, and 1000Hz. The module’s scan time is 1ms, regardless of the filter setting with varying settling times based on the configured filter options. Settling times include 127 mS at 8 Hz Filter; 67 ms at 12 Hz Filter; 56 mS at 16 Hz filter; 21 mS at 40 Hz filter; 3.1 mS at 250 Hz filter and 0 mS at 1000 Hz filter. The module’s calibrate accuracy is 0.1% of range at 25°C and 0.2% of the range over the entire temperature span.

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