GE RX3i PacSystem Series Service Manual

IC695ALG508

1. Description

The IC695ALG508 is a PACSystem RX3i Programmable Automation Controller (PAC) Resistance Temperature Detector (RTD) Input module formerly manufactured by GE Intelligent Platforms (GE IP) now under Emerson Automation. This module features Eight (8) isolated, differential RTD input channels. Each channel of this module supports Platinum 385, Platinum 391.6,

2. Specifications

Specification	Value
Brand	**GE Fanuc**
Series	**PACSystem RX3i**
Manufacturer	**Emerson Automation**
Part	**Number IC695ALG508**
Product	**Description Resistance Temperature Detector (RTD) Input module**
Module	**Type RTD Input Module**
No	**of Channels Eight (8), isolated, differential**
Number	**of Inputs 8 Differential Inputs**
RTD	**Input types 50, 100, 200, 500, and 1000 ohm Platinum 385 (IEC751 1983, Amend 2 1995; JISC 1604 1997); 50, 100, 200, 500, and 1000 ohm Platinum 391.6 (JISC 1604: 1981); 100 ohm, 200 ohm, 500 ohm, and 1000 ohm Nickel 618 (DIN 43760 Sept. 1987); 120 ohm Nickel 672 (MINCO Application Aid #18, 5/90 Type Ni); 10, 50, and 100 ohm Copper 426 (SAMA RC21-4-1966) and 604 ohm Nickel-Iron 518**
Internal	**Power 3.3V @ 400mA and 5.1V @ 200 mA**
RTD	**Wiring 2, 3, or 4 wire RTD types**
Range	**(Ohms) 250/500/1000/2000/3000/4000**
Resistance	**inputs 0-260, 0-525, 0-1050, 0-2100, 0-3150, 0-4200 ohms**
Power	**Dissapation 2.5W max**
Measurement	**Units Degrees C or F, or Ohms**
Operating	**Temperature 0 to 60 degrees Celsius**
Configurable	**notch filter**

3. Product Information

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Internal Power 3.3V @ 400mA and 5.1V @ 200 mA

RTD Wiring 2, 3, or 4 wire RTD types

Range (Ohms) 250/500/1000/2000/3000/4000

Resistance inputs 0-260, 0-525, 0-1050, 0-2100, 0-3150, 0-4200 ohms

Power Dissapation 2.5W max

Measurement Units Degrees C or F, or Ohms

Operating Temperature 0 to 60 degrees Celsius

Configurable notch filters 2.3 Hz to 28 Hz

Storage Temperature -40 to 85 degrees Celsius

Hot-Swap Supports Removal and Insertion Under Power (RIUP)

Humidity 5 to 95%, Non-condensing

Data Format 16-bit integer (in a 32-bit field) or 32-bit real number data for each channel

Module Fault status Watchdog, RAM Fail, Flash Fail

Current consumption 3.3V: 400mA; 5V: 200mA

The IC695ALG508 is a Resistance Temperature Detector (RTD) input module that is part of the PACSystem RX3i Programmable Automation Controller (PAC) platform. This module is manufactured by Emerson Automation, formerly by GE Intelligent Platforms (GE IP). It comes with Eight (8) isolated differential input channels and supports direct input of RTD and resistance inputs. This module supports RTD input types such as 50, 100, 200, 500, and 1000 ohm Platinum 385 (IEC751 1983, Amend 2 1995; JISC 1604 1997); 50, 100, 200, 500, and 1000 ohm Platinum 391.6 (JISC 1604: 1981); 100 ohm, 200 ohm, 500 ohm, and 1000 ohm Nickel 618 (DIN 43760 Sept. 1987); 120 ohm Nickel 672 (MINCO Application Aid #18, 5/90 Type Ni); 10, 50, and 100 ohm Copper 426 (SAMA RC21-4-1966) and 604 ohm Nickel-Iron 518. While the supported Resistance inputs are 0-260, 0-525, 0-1050, 0-2100, 0-3150, 0-4200 ohms. This module has selectable measurement units, specifically, Degrees Celsius, Degree Fahrenheit or Ohms. It also has configurable default or hold last state as a reaction to system failure and CPU change of operating mode. This module support Two-Wire, Three-Wire and Four-Wire RTD sensors. The IC695ALG508 input data format supports 16-bit integer in 32-bit field or 32-bit IEEE Floating point data. Each channel also comes with selectable notch filter settings from 2.3 Hz to 28 Hz. For termination of input wires, this module uses Box-style (IC694TBB032), Extended Boxstyle (IC694TBB132), Spring-style (IC694TBS032), or Extended Spring-style (IC694TBS132) Terminal Block. For shielded wiring, the extended terminal block types are recommended for use as these blocks provide extra shroud depth.

The GE Fanuc IC695ALG508 Resistance Temperature Detector (RTD) input module offers 8 isolated differential RTD input channels. Every channel can be separately set up as an RTD input type or a resistance input type. The RTD input types include resistance ratings of 1000, 500, 200, 100, and 50 Ohms, 1000, 500, 200, 100, and 50 Ohms, 1000, 500, 200, and 100 Ohms, 120 Ohms, 604 Ohms, or 100, 50, and 10 Ohms depending on what they are made of. The resistance input types include resistance ratings of 4000, 3000, 2000, 1000, 500, and 250 Ohms. This RTD input module can be used with terminal blocks including the spring-style IC694TBS032 terminal block, the extended spring-style IC694TBS132 terminal block, the box-style IC694TBB032 terminal block or the extended box-style IC694TBB132 terminal block. The terminal blocks usually need to be purchased separately. The GE Fanuc IC695ALG508 RTD input module has LEDs that include the OK LED that shows the status of the module while the Field Status LED shows if an external 24 Volts DC power supply is connected, whether the voltage is exceeding the minimal level, and also if any faults are present or not. The backplane power bus powers all the LEDs for the module. The IC695ALG508 module has a programmable notch filter frequency between 2.3 Hertz and 28 Hertz for every channel. Each channel has a selectable input data filter with 32-bit IEEE floating point data or 16-bit integer data. The IC695ALG508 module has RTD linearization formulated on the ITS-90. This module is found in the RX3i Universal backplane. It has an operating temperature range of 0 to 60 degrees Celsius, a storage temperature range of -40 to 85 degrees Celsius, and a non-condensing humidity range from 5 percent to 95 percent.