GE Series 90-30 Series Service Manual

IC693ALG391

1. Description

The IC693ALG391 is a Series 90-30 PLC, analog output module providing 0-20 mA / 4-20 mA current output signal and 1-5VDC / 0-5 VDC voltage output signals. This module is formerly manufactured by GE Fanuc Automation, now under Emerson Automation. The module has Two (2) analog output channels with resolution of 4µA (1 LSB = 4µA); 0 to 20 mA 5µA (1 LSB = 5µA);

2. Specifications

Specification	Value
Brand	**GE Fanuc**
Series	**Series 90-30**
Manufacturer	**GE Fanuc (Formerly); Emerson Automation (Current)**
Analog	**output signal 0-20 mA / 4-20 mA; 1-5VDC / 0-5 VDC**
Part	**Number IC694ALG391**
Series	**Series 90-30**
Channel	**update rate 5 ms**
Product	**Description Analog output module**
Output	**signals 0-20 mA / 4-20 mA**
Analog	**output resolution 4 to 20 mA 4µA (1 LSB = 4µA); 0 to 20 mA 5µA (1 LSB = 5µA); 1 to 5 V 1 mV (1 LSB = 1 mV); 0 to 5 V 1.25 mV (1 LSB = 1.25 mV)**
No	**of Channels Two (2) output channels**
Digital	**Resolution 12 bits, typical**
Analog	**output accuracy: 4 to 20 mA 8µA at 25oC (77oF); 0 to 20 mA 10µA at 25oC (77oF); 1 to 5 V 50 mV at 25oC (77oF); 0 to 5 V 50 mV at 25oC (77oF)**
Range	**4-20 mA, 0-20 mA**
Analog	**resolution 4 to 20 mA 4µA (1 LSB = 4µA); 0 to 20 mA 5µA (1 LSB = 5µA); 1 to 5 V 1 mV (1 LSB = 1 mV); 0 to 5 V 1.25 mV (1 LSB = 1.25 mV)**
Current	**draw 30 mA @ 5 VDC; 215 mA @ 24 VDC (backplane or user provided)**
External	**Supply Voltage Range 20 to 30 VDC**
Supply	**Voltage (nominal) +24 VDC, from isolated**

3. Product Information

The IC693ALG391 is a Series 90-30 PLC, analog output module providing 0-20 mA / 4-20 mA current output signal and 1-5VDC / 0-5 VDC voltage output signals. This module is formerly manufactured by GE Fanuc Automation, now under Emerson Automation. The module has Two (2) analog output channels with resolution of 4µA (1 LSB = 4µA); 0 to 20 mA 5µA (1 LSB = 5µA);

Technical specifications for IC693ALG391

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Series Series 90-30

Manufacturer GE Fanuc (Formerly); Emerson Automation (Current)

Analog output signal 0-20 mA / 4-20 mA; 1-5VDC / 0-5 VDC

Part Number IC694ALG391

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Channel update rate 5 ms

Product Description Analog output module

Output signals 0-20 mA / 4-20 mA

Analog output resolution 4 to 20 mA 4µA (1 LSB = 4µA); 0 to 20 mA 5µA (1 LSB = 5µA); 1 to 5 V 1 mV (1 LSB = 1 mV); 0 to 5 V 1.25 mV (1 LSB = 1.25 mV)

No of Channels Two (2) output channels

Digital Resolution 12 bits, typical

Analog output accuracy: 4 to 20 mA 8µA at 25oC (77oF); 0 to 20 mA 10µA at 25oC (77oF); 1 to 5 V 50 mV at 25oC (77oF); 0 to 5 V 50 mV at 25oC (77oF)

Range 4-20 mA, 0-20 mA

Analog resolution 4 to 20 mA 4µA (1 LSB = 4µA); 0 to 20 mA 5µA (1 LSB = 5µA); 1 to 5 V 1 mV (1 LSB = 1 mV); 0 to 5 V 1.25 mV (1 LSB = 1.25 mV)

Current draw 30 mA @ 5 VDC; 215 mA @ 24 VDC (backplane or user provided)

External Supply Voltage Range 20 to 30 VDC

Supply Voltage (nominal) +24 VDC, from isolated +24 VDC on backplane or user supplied voltage source, and +5 VDC from backplane

External Supply Voltage Range 20 to 30 VDC (24 VDC typical)

Isolation 1500 VAC

Update Rate 5 msec

Status indicators Module OK

Update Rate 5 ms all channels

Calibration Factory Calibrated to 4µA per count

Module width 1-slot

Resolution at 4-20 mA 4 microamps

Absolute Accuracy 4 to 20 mA ±8µA at 25degrees C (77degrees F); 0 to 20 mA ±10µA at 25degrees C (77degrees F); 1 to 5 V ±50 mV at 25degrees C (77degrees F); 0 to 5 V ±50 mV at 25degrees C (77degrees F)

Isolation, Field to logic side 1500 VAC for 1 minute

Resolution at 0-20 mA 5 microamps

Bus Current draw 30 mA from +5V supply; 215 mA from Isolated +24 VDC backplane supply or user supply

Product Lifecycle Status Discontinued

Maximum Compliance Voltage 25 Volts

Product Lifecycle Status Discontinued/Obsolete

Internal Power Consumption 30 mA at 5 VDC, 215 mA at 24 VDC Isolated

Product Lifecycle Status* Discontinued/Obsolete

The IC694ALG391 is an analog output module formerly manufactured by GE Fanuc Automation, now acquired by Emerson Automation. This module is a single slot module featuring Two (2) analog output channels that generates voltage and current output signals such as 0-20 mA / 4-20 mA and 1-5VDC / 0-5 VDC electrical signals. This module comes with specific resolutions particularly 4µA (1 LSB = 4µA) at 4-20 mA; 5µA (1 LSB = 5µA) at 0-20 mA; 1 mV (1 LSB = 1 mV) at 1 to 5 VDC and 1.25 mV (1 LSB = 1.25 mV) at 0-5 VDC. This module is used particularly to actuate modulating control devices such as control valves, louvers, dampers, Variable Frequency Drive (VFD), and similar devices. It may also be used for retransmitting signals and interfacing to panel meters, data loggers, and other receiving elements. The IC694ALG391 is installed to any I/O mounting location of a 5-slot and 10-slot baseplate. It has a single Module OK status indicator depicting the operational state of the module. The module's absolute accuracy are 8µA at an operating temperature of 25oC (77oF) when configured for 4 to 20 mA; 10µA at 25oC (77oF) for 0 to 20 mA configuration; 50 mV at 25oC (77oF) for 1 to 5 V operation and 50 mV at 25oC (77oF) operating at 0 to 5 V. The IC694ALG391 has an internal power consumption of 30 mA from the +5V supply and 215 mA from the isolated +24 VDC backplane supply or user-provided power source.

The IC693ALG391 is a Series 90-30 PLC, analog output module providing 0-20 mA / 4-20 mA current output signal and 1-5VDC / 0-5 VDC voltage output signals. This module is formerly manufactured by GE Fanuc Automation, now under Emerson Automation. The module has Two (2) analog output channels with resolution of 4µA (1 LSB = 4µA) at 4-20mA; 5µA (1 LSB = 5µA) at 0 to 20 mA; 1 mV (1 LSB = 1 mV) at 1 to 5 V; 1.25 mV (1 LSB = 1.25 mV) at 0 to 5 V with backplane current draw of 30 mA from +5V supply and 215 mA from Isolated +24 VDC backplane supply or user supply.