GE Versamax Series Service Manual

IC200ALG430

1. Description

The IC200ALG430 is a 6-Point Analog combination module from VersaMax I/O series formerly produced by GE Intelligent Platforms, now under Emerson Automation. This module has Four (4) differential inputs in a single group that accepts 4-20 mA signals and Two (2) single-ended outputs in one group that generates 4-20 mA output signal.

2. Specifications

Specification	Value
Brand	**GE Fanuc**
Series	**VersaMax**
Manufacturer	**Emerson Automation / GE Fanuc (former)**
Manufacturer	**GE Intelligent Platforms (Former); Emerson Automation (Current)**
Part	**Number IC200ALG430**
Series	**VersaMAx**
Part	**Number IC200ALG430**
Description	**Analog mixed module**
Product	**Description Analog combination module**
Product	**Description 6-point combination I/O module**
Channel	**to Channel Crosstalk Rejection 30 dB**
No	**of analog input Channels Four (4)**
Wiring	**configuration Input: Differential Output: Single Ended**
Current	**4-20 milliamperes**
No	**of analog output channels Two (2)**
Input	**signal, nominal 4-20 mA**
Update	**Rate 0.4 milliseconds**
Supported	**signals: 4-20 mA**
Output	**signal, nominal 4-20 mA**
Input	**Filter Response Time 5 milliseconds**
Resolution	**12 bit**
Module	**resolution 12 bits**
Voltage	**250 Volts AC**
Accuracy	**+/-0.3% typ. of full scale, +/-0.5% max. of full scale at 25 Degree Celsius; +/- 0.1% maximum of full scale at 0-60 Degrees Celsius**
Module	**Accuracy +/- 0.3% typ. of full scale, +/- 0.5% max. of full scale at**

3. Product Information

The IC200ALG430 is a 6-Point Analog combination module from VersaMax I/O series formerly produced by GE Intelligent Platforms, now under Emerson Automation. This module has Four (4) differential inputs in a single group that accepts 4-20 mA signals and Two (2) single-ended outputs in one group that generates 4-20 mA output signal.

Technical specifications for IC200ALG430

Brand GE Fanuc

Series VersaMax

Manufacturer Emerson Automation / GE Fanuc (former)

Manufacturer GE Intelligent Platforms (Former); Emerson Automation (Current)

Part Number IC200ALG430

Series VersaMAx

Part Number IC200ALG430

Description Analog mixed module

Product Description Analog combination module

Product Description 6-point combination I/O module

Channel to Channel Crosstalk Rejection 30 dB

No of analog input Channels Four (4)

Wiring configuration Input: Differential Output: Single Ended

Current 4-20 milliamperes

No of analog output channels Two (2)

Input signal, nominal 4-20 mA

Update Rate 0.4 milliseconds

Supported signals: 4-20 mA

Output signal, nominal 4-20 mA

Input Filter Response Time 5 milliseconds

Resolution 12 bit

Module resolution 12 bits

Voltage 250 Volts AC

Accuracy +/-0.3% typ. of full scale, +/-0.5% max. of full scale at 25 Degree Celsius; +/- 0.1% maximum of full scale at 0-60 Degrees Celsius

Module Accuracy +/- 0.3% typ. of full scale, +/- 0.5% max. of full scale at 25 Degree Celsius; +/-1% maximum of full scale at 0-60 Degree Celsius

Isolation 250/1500 Volts AC

External Supply Voltage Range 9.6 to 15VDC, 12VDC nominal (including ripple)

Module update rate Input: 0.4 ms, maximum Output: 0.3 ms, maximum

Current consumption 215 mA maximum plus load currents

Input filter response 5.0 ms

Backplane current 50 mA @ 5VDC

External power supply Input: None Output: +18 to +30VDC (including ripple); 9.6 to 15VDC, 12VDC nominal (including ripple)

Update rate, Input 0.4 ms

Module Diagnostics Loss of User Side Power

Update rate, Output 0.3 ms

LED Indicators FLD POWER; MODULE OK

Module width Single slot

Optical isolation 250VAC continuous; 1500VAC for 1 minute

Optical Isolation rating 250VAC continuous; 1500VAC for 1 minute

The IC200ALG430 is a VersaMax combination analog module. This module is equipped with Four (4) differential inputs, arranged in a single group that accepts 4-20 mA signals with Analog to Digital Converter (ADC) on each input channel with resolution of 12-bits. Similarly, it also has Two (2) single-ended outputs in one group that generates 4-20 mA output signal with similar resolution of 12 bits. This module is ideally used in applications with limited panel space or maximized expansion channels. The IC200ALG430 analog input circuits operate without an external power supply however, the output circuits should be provided with external 24 VDC supply voltage to generate the output current signal. This module is provided with a FLD PWR LED for reporting of the presence of field power and on OK LED for reporting active supply of power from the backplane. The input channel characteristics includes input impledance of 200 Ohms, maximum, update rate of 0.4 ms, filter response of 5.0 ms and accuracy of +/-0.3% typ. of full scale, +/-0.5% max. of full scale at 25 Degress Celsius and +/-1% maximum of full scale at 0-60 Degree Celsius. Conversely, the output channels have 0.3 ms update rate and similar accuracy as to the input channels. The output channels though have configurable hold state or provide a selectable constant value. For input hold state features, if the module is used with CPU or NIU version 2.x or later, the input defaults to 0 in reaction to CPU stoppage or module error however, with higher CPU or NIU version such as version 1.5 or later, the input default matches the jumper defined output default.

The IC200ALG430 module is a Versamax analog mixed module that is manufactured by GE Fanuc. It offers 4 analog current inputs and 2 analog current outputs to the users. It is an industrial device with resolution of 12 bits. The input and output current range of the module is between 4 and 20 milliamps, and the module consumes 50 milliamps from the 5 Volts bus. The analog module has an update rate of 0.4 milliseconds and the input filter response is 5 milliseconds. The IC200ALG430 module is able to provide 4 words of input data and 2 words of analog output data. This mixed module runs with an input supply voltage of 250 Volts AC. The IC200ALG430 module is easy to set up and use. It is fully compatible with a wide range of modules and communication devices. The module is equipped with a CPU that handles the processing functions. The front part of the module is equipped with LED indicators. The green FLD PWR LED shows the flow of power for the circuit. Another green LED that is the OK LED illuminates when power is present in the module. The user input to logic isolation and to the frame ground is 250 Volts AC, and it is 1500 Volts AC for 60 seconds. A diagnostics feature is present in the IC200ALG430 module that checks for the loss of

the power. The channel to channel crosstalk rejection in the module is 30 dB minimum.