GE Versamax Series Service Manual

IC200ALG264

1. Description

The IC200ALG264 is a 15-Point Analog current input module from VersaMax I/O series formerly produced by GE Intelligent Platforms, now under Emerson Automation. This module has Fifteen (15) single-ended input channels that accept 4-20 mA and 0-20 mA input signals with resolution of 15 bits and maximum update rate of 7.5 ms. This module has a maximum backplane

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 IC200ALG264**
Series	**VersaMAx**
Series	**VersaMax**
Type	**Input Module**
Product	**Description 15-Point Analog current input module**
Part	**Number IC200ALG264**
Channels	**15 single ended, one group**
No	**of Channels 15, single-ended inputs**
Wiring	**configuration Single-ended**
Isolation	**250VAC continuous; 1500VAC for 1 minute**
No.	**of groups 1 group**
Input	**signal, nominal 0-20 mA; 4-20 mA**
LED	**Indicators Yes OK LED**
Compatible	**signals 4 to 20 mA / 0 to 20 mA**
Analog	**resolution 15 bits**
Backplane	**Current Consumption 5V: 100 mA maximum**
Resolution	**15 bit**
Digital	**resolution 0.5 µA for 4-20 mA; 0.625 µA for 0-20 mA**
Diagnostics	**Yes**
External	**Supply Voltage Range None**
Input	**impedance 100 Ohms**
Input	**Currents 1 to 20 mA**
Internal	**Supply Voltage 5 VDC from PLC backplane**
Filter	**response (3dB Corner Freq) 24 Hz +/-20%**
Input	**Impedance 100 ohms**
Backplane	**current 10**

3. Product Information

The IC200ALG264 is a 15-Point Analog current input module from VersaMax I/O series formerly produced by GE Intelligent Platforms, now under Emerson Automation. This module has Fifteen (15) single-ended input channels that accept 4-20 mA and 0-20 mA input signals with resolution of 15 bits and maximum update rate of 7.5 ms. This module has a maximum backplane

Technical specifications for IC200ALG264

Brand GE Fanuc

Series Versamax

Manufacturer Emerson Automation / GE Fanuc (former)

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

Part Number IC200ALG264

Series VersaMAx

Series VersaMax

Type Input Module

Product Description 15-Point Analog current input module

Part Number IC200ALG264

Channels 15 single ended, one group

No of Channels 15, single-ended inputs

Wiring configuration Single-ended

Isolation 250VAC continuous; 1500VAC for 1 minute

No. of groups 1 group

Input signal, nominal 0-20 mA; 4-20 mA

LED Indicators Yes OK LED

Compatible signals 4 to 20 mA / 0 to 20 mA

Analog resolution 15 bits

Backplane Current Consumption 5V: 100 mA maximum

Resolution 15 bit

Digital resolution 0.5 µA for 4-20 mA; 0.625 µA for 0-20 mA

Diagnostics Yes

External Supply Voltage Range None

Input impedance 100 Ohms

Input Currents 1 to 20 mA

Internal Supply Voltage 5 VDC from PLC backplane

Filter response (3dB Corner Freq) 24 Hz +/-20%

Input Impedance 100 ohms

Backplane current 100 mA

Update rate 7.5 ms, maximum

Accuracy 0.3% typical, 1% maximum

Update Rate 7.5 ms all channels

Input signal selection No terminal jumper installed: 4-20 mA With Jumper installed: 0-20 mA

Resolution 15 Bits

Resolution at 4-20 mA 0.5µA

Current Draw 100 mA, maximum

Resolution at 0-20 mA 0.625µA

Input grouping Single group

Module width Single slot

Diagnostics Loss of user side power; Open wire detection for 4-20 mA

The IC200ALG264 is an analog input module from the VersaMax I/O product family of distributed I/O modules and components. The IC200ALG264 is a compact and versatile input module that is designed to be installed in a remote location and communicates I/O data over an industrial communication protocol. This module mainly features Fifteen (15) analog input channels that are designed to accept 0-20 mA and 4-20 mA input signals. These input channels are provided with individual Analog to Digital Converter (ADC) circuit with digital conversion resolution of 15-bits and analog resolution of 0.5µA = 1 counts for 4-20mA range and 0.625µA = 1 counts for 0-20mA range. This module has input accuracy +/-0.3% typical of full scale and +/-0.5% maximum of full scale at an ambient temperature of 0-25 Degree Celsius and +/-1% maximum of full scale at ambient temperature of 0-60 Degree Celsius. The IC200ALG264 is capable of detecting error conditions such as loss of internal power for both operating modes and open wire detection when operating at 4-20 mA mode only. These diagnostic status are reported to the CPU for error indication and proper display to Human Machine Interface (HMI) and Supervisory Control and Data Acquisition (SCADA) systems. The module’s operating mode or range selection is set with the use of terminal jumpers. To configuration 4-20 mA, the terminal jumper must be uninstalled which is the default configuration. Otherwise, install the jumper for 0-20 mA operation. The IC200ALG264 has built-in module OK LED status indicator. Tis LED indicates successful module power up and downloaded with a valid configuration. It has maximum backplane current consumption of 100 mA.

The IC200ALG264 module is an analog input module that has been designed and distributed by GE Fanuc Automation. This specific module is part of the Versamax series of I/O modules. It provides an interface to 15 different current inputs, enabling different equipment to be connected to the main processor. This module can operate perfectly when using the backplane power supply. The user’s transceiver that is connected to the module requires an external source of power. The GE Fanuc Automation IC200ALG264 analog input module provides different diagnosis features that can detect the loss of the internal power that is used for field-side circuits and that can also report an open wire fault for each of its channels.

These diagnosis modes are available when used in the 4-channel 20-milliamp mode. The GE Fanuc Automation IC200ALG264 analog input module comes with a single group of 15 single-ended channels. This module comes with an isolation rating of 350 Volts AC continuous and 1500 Volts AC for one minute. It does not have isolation between channels and since the channels are in a single group. The GE Fanuc Automation IC200ALG264 analog input module has a resolution of 15 bits and an accuracy of +/- 0.3 percent typical at 25 degrees Celsius and +/- 1 percent maximum of full scale. The module has a backplane current consumption rating of 100 milliamperes maximum at 5 Volts. The update time rating is of 7.5 milliseconds. The module comes with an LED indicator that shows when the backplane power is present and the module has been both configured and recognized on the backplane.