GE Field Control Series Service Manual

IC670ALG240

1. Description

The IC670ALG240 is an 16-Point Analog Current source input module from the Field control series of GE Fanuc. This module has Sixteen (16) single-ended input channels configurable for 0-20 mA / 4-20 mA with digital resolution of 16 bits. This module supports ANSI Type 2 2-wire and 3-Wire transmitter wiring. Technical specifications for IC670ALG240

2. Specifications

Specification	Value
Brand	**GE Fanuc**
Series	**Field Control**
Manufacturer	**GE Fanuc**
Part	**Number IC670ALG240**
Part	**Number IC670ALG240**
Description	**Analog input module**
Product	**Description Analog Current / Voltage Source Input Module**
Channels	**16**
No.	**of channels Eight (8)**
Input	**Current 0-25 milliamperes**
Wiring	**configuration Single-ended**
Frequency	**50/60 Hertz**
Input	**signal, nominal 0-20 mA**
Resolution	**16 bits**
Input	**signal, range 0.0-20.48 mA**
Ripple	**10% max.**
Maximum	**current input 35 mA**
Common	**Mode Rejection 86 dB**
ADC	**Conversion resolution 16 bits**
Hardware	**Filter RC 2nd order**
External	**Power supply 20-28 VDC**
Nominal	**Supply voltage 24 VDC**
Current	**Drawn from BIU power supply 251 mA, maximum**
Ground	**to Logic Isolation 1500 VAC for 1 minute; 250 VAC, continuous**
Input	**grouping Single group**
Loop	**wiring ANSI Type 2 2-Wire transmitter; ANSI Type 3 2-Wire transmitter;**
Description	
The	**IC670ALG240 is an analog input module from GE Fanuc. This module is specifically part of the Field I/O control series that is designed for installation**

3. Product Information

The IC670ALG240 is an 16-Point Analog Current source input module from the Field control series of GE Fanuc. This module has Sixteen (16) single-ended input channels configurable for 0-20 mA / 4-20 mA with digital resolution of 16 bits. This module supports ANSI Type 2 2-wire and 3-Wire transmitter wiring. Technical specifications for IC670ALG240

Brand GE Fanuc

Series Field Control

Manufacturer GE Fanuc

Part Number IC670ALG240

Part Number IC670ALG240

Description Analog input module

Product Description Analog Current / Voltage Source Input Module

Channels 16

No. of channels Eight (8)

Input Current 0-25 milliamperes

Wiring configuration Single-ended

Frequency 50/60 Hertz

Input signal, nominal 0-20 mA

Resolution 16 bits

Input signal, range 0.0-20.48 mA

Ripple 10% max.

Maximum current input 35 mA

Common Mode Rejection 86 dB

ADC Conversion resolution 16 bits

Hardware Filter RC 2nd order

External Power supply 20-28 VDC

Nominal Supply voltage 24 VDC

Current Drawn from BIU power supply 251 mA, maximum

Ground to Logic Isolation 1500 VAC for 1 minute; 250 VAC, continuous

Input grouping Single group

Loop wiring ANSI Type 2 2-Wire transmitter; ANSI Type 3 2-Wire transmitter;

Description

The IC670ALG240 is an analog input module from GE Fanuc. This module is specifically part of the Field I/O control series that is designed for installation along a Bus Interface Unit (BIU) and an expansion rack. This module provides Sixteen (16) analog input channels in a single group, accepting current input signals in the form of 0-20 mA and 420 mA and may be operated at an input signal range of 0-25 mA. The IC670ALG240 can be used to interface field transmitters such as Pressure, Level, Flow, Temperature, Turbidity and similar types. It may also be used to interface output signals of panel meters, data loggers, single-loop controllers, Variable Frequency Drives (VFD), signal splitters, signal isolators and other devices. This module comes with a built-in Analog to Digital Converter (ADC) available to each input channels that converts the analog data to digital format with resolution of 16-bits. The IC670ALG240 has a maximum current draw of 251 mA from the BIU power supply. It has an operating temperature range of 0-55 Degree Celsius and requires a current loop power supply 20-28 VDC, nominal with 10% ripple voltage. It has temperature coefficient of +/-.002% of value per degree C, typical, and +/-.005% of value per degree C, maximum. This module supports ANSI Type 2 2-wire transmitter and Type 3 3-Wire transmitter wiring configuration. The IC670ALG240 is capable of performing internal diagnostics such as module not calibrated, calibration data out of range, calibration write failure, ready to calibrate, invalid command, A/D conversion incomplete, Factory calibration not available, individual channel high and low alarm, underrange and overrange conditions.

The GE IC670ALG240 input module is a 16-channel analog current input module. At a single time, the module is able to take in 16 loop inputs by using a common power supply. The module is able to accept 2-wire or 3-wire current transmissions and then change them into digital input values. The input current to the module ranges between 0 and 25 milliamps. The module supports both the word and bit data types. The IC670ALG240 input module can be easily calibrated and the calibration data can be stored in the flash memory. The module uses 50 Hertz and 60 Hertz frequencies for data acquisition. The module is intelligent and it comes with diagnostics and alarm features that can report over range and open wire alarms. The alarms in the module can be configured by the operators. The GE Fanuc IC670ALG240 input module has a resolution of 16 bits. The input current span for 16 bits ranges between 0 and 25 milliamps. The current loop power supply of the module is between 20 and 28 Volts, and it has a maximum ripple of 10%. For operation, the temperature should be set between 0 and 55 degrees Celsius. The IC670ALG240 input module uses an active RC filter 2nd order as the hardware filter. The common mode rejection from the channel to the ground is 86 dB. The input module has several useful features. It comes with the Channel Active mode that helps to set a specific channel as active or inactive. It has advanced filtering options like the input filter, line filter, and averaging filter.