GE Field Control Series Service Manual

IC670GBI002

1. Description

The GE Fanuc IC670GBI002 module is a Field Control bus interface unit. It is used for interfacing of host PLC or computer with GE Field Control I/O. During each scan, the bus interface unit can exchange a maximum of 128 KB of input and 128 KB of output. The IC670GBI002 module is also capable of handling Genius datagram communications. The unit is capable of carrying out diagnostic tests on connected I/O modules and also on itself. The diagnostic information is relayed to a host device or to a ha

2. Specifications

Specification	Value
Brand	**GE Fanuc**
Series	**Field Control**
Manufacturer	**GE Fanuc**
Part	**Number IC670GBI002**
Series	**Field I/O control**
Type	**Bus interface unit**
Part	**Number IC670GBI002**
Compatibility	**Field control IC670G / IC670GBI**
Product	**Description Bus Interface Unit (BUI)**
Nominal	**Rated Voltage 115 Volts AC, 125 Volts DC**
Supply	**Voltage range 18-30 VDC**
Voltage	**Range 90 to 135 Volts AC / 105 to 150 Volts DC**
Nominal	**supply voltage 24 VDC**
Frequency	**47 to 63 Hertz**
Power	**consumption 16.8 Watts**
Power	**at 115 Volts AC 48 Volt-Amps (maximum) at full load**
Inrush	**Current 15-50 Amps peak, 3 mS maximum**
Power	**at 125 Volts AC 24 Watts (maximum) at full load**
Power	**Supply Output 6.5 VDC ±5%**
Inrush	**Current 20 Amps (peak), 3 milliseconds (maximum)**
Current	**output to modules 1.4 A**
Power	**Supply Output 6.5 Volts DC**
Holdup	**time 10 ms**
Holdup	**Time 20 milliseconds (maximum)**
Supported	**protocols Genius Bus**
Reliability	**More than 183,000 hours operation MTBF**
Product	**Lifecycle Status Discontinued/Obsolete**
CPU	**Redundancy Supported**
Hot	**Insertion a**

3. Product Information

The GE Fanuc IC670GBI002 module is a Field Control bus interface unit. It is used for interfacing of host PLC or computer with GE Field Control I/O. During each scan, the bus interface unit can exchange a maximum of 128 KB of input and 128 KB of output. The IC670GBI002 module is also capable of handling Genius datagram communications. The unit is capable of carrying out diagnostic tests on connected I/O modules and also on itself. The diagnostic information is relayed to a host device or to a handheld monitor. The IC670GBI002 module mounts on a terminal block for bus interface units. The wiring for power connections and single/dual communications cables terminates on the compatible terminal block.

The IC670GBI002 module can be replaced without needing to reconfigure the I/O wiring. This interface unit also supports hot insertion and removal. When installed according to all of the recommended guidelines, the IC670GBI002 module is resistant to the noise levels that are typically present in industrial applications. The working temperature range for the module is from 0 to 55 degrees Celsius and the storage temperature range is from -40 to 85 degrees Celsius. The non-condensing relative humidity range is from 5 to 95% for operation and stroage. The IC670GBI002 module is rated for a minimum mean time before failure of 183,000 hours. The nominal DC input voltage is 24 Volts DC and the maximum power at a full load is 16.8 Watts. The holdup time for the unit is 10 milliseconds. The nominal AC input voltage is 115 Volts AC. The terminal block for the bus interface unit requires a maximum of 16 milliamps of current and it is rated for minimum mean time before failure of 600,000 hours. The IC670GBI002 is a Bus Interface Unit that is part of the Field control system. It functions as the header module of each Field I/O system, which manages interface between the master PLC or computer over Genius Bus. It is capable of exchanging 128 bytes of input and 128 Bytes of output data and supports up to Eight (8) Field Control I/O modules. This module supports Hot Standby CPU Technical specifications for IC670GBI002

Brand GE Fanuc

Series Field Control

Manufacturer GE Fanuc

Part Number IC670GBI002

Series Field I/O control

Type Bus interface unit

Part Number IC670GBI002

Compatibility Field control IC670G / IC670GBI

Product Description Bus Interface Unit (BUI)

Nominal Rated Voltage 115 Volts AC, 125 Volts DC

Supply Voltage range 18-30 VDC

Voltage Range 90 to 135 Volts AC / 105 to 150 Volts DC

Nominal supply voltage 24 VDC

Frequency 47 to 63 Hertz

Power consumption 16.8 Watts

Power at 115 Volts AC 48 Volt-Amps (maximum) at full load

Inrush Current 15-50 Amps peak, 3 mS maximum

Power at 125 Volts AC 24 Watts (maximum) at full load

Power Supply Output 6.5 VDC ±5%

Inrush Current 20 Amps (peak), 3 milliseconds (maximum)

Current output to modules 1.4 A

Power Supply Output 6.5 Volts DC

Holdup time 10 ms

Holdup Time 20 milliseconds (maximum)

Supported protocols Genius Bus

Reliability More than 183,000 hours operation MTBF

Product Lifecycle Status Discontinued/Obsolete

CPU Redundancy Supported

Hot Insertion and Removal of Modules Supported Description

The IC670GBI002 is a Bus Interface Unit (BUI) from the Field control system series. This BUI supports Genius Bus protocol and supports hosting of up to Eight (8) Field I/O modules. The BUI manages data exchanges between the Field I/O modules to the host computer of the master controller residing in the Genius Bus. Up to 128 Bytes of input data and 128 Bytes of output data can be accommodated by the IC670GBI002 Bus Interface Unit. The IC670GBI002 is installed to an appropriate terminal base. It is designed to be mounted to a DIN rail with the DIN rail component connected to the grounding system. With this, ensure that the DIN rail material is made of good or excellent conductor and not easily affected by oxidation and corrosion. The IC670GBI002 is powered by an external supply voltage range of 18-30 VDC with nominal value of 24 VDC. It has power consumption of 16.8 Watts with Inrush current of 15-50 A (peak) with maximum duration of 3 ms. It has power supply output of 6.5 VDC and maximum current of 1.4 Amperes with holdup time of 10 mS. The output voltage and current is delivered to the hosted modules through the BUI backplane. The IC670GBI002 has reliability 183, 000 hours operation Mean Time Before failure (MTBF). It comes with terminal strip for Power and communication connection and I/O terminals for establishing connection to the next terminal block. Aside from redundant CPU assembly, it may also be used in Hot removal and insertion requirements, provided the appropriate Field I/O module versions are installed.

The IC670GBI002 interface is a Field Control bus interface unit manufactured by GE Fanuc. The unit is available through the Field Control product series and it complies with standards like the UL and CE standards. Generally, the unit is intended for non-hazardous locations and it must be sufficiently protected if it is used in hazardous areas. This part also complies with the FCC rules and it operates in locations with operating temperatures not lower than 0 degrees Celsius (32 degrees Fahrenheit) and not higher than 55 degrees Celsius (131 degrees Fahrenheit). The IC670GBI002 bus interface unit features specifications like a hold-up time of 20 milliseconds (maximum), an inrush current of 20 Amps (peak) for 3 milliseconds maximum, and a power consumption rating of 48 Volts-Amps for 115 Volts AC and one of 24 Watts for 125 Volts AC. The Field Control IC670GBI002 bus interface unit is compatible with Genius hand-held monitors that are version 4.6 or later and with various host system equipment. The unit also operates perfectly with programmable logic controllers from Series 90-30, Series 90-70, Series Six, or Series Five. The unit has an operating frequency of 47 to 63 Hertz and an input voltage of 90 to 135 Volts AC or 105 to 150 Volts DC. The typical power which is required for the associated terminal block is 16 milliamps. The IC670GBI002 bus interface unit mounts on a standard DIN rail which has a size of at least 108 millimeters (4.25 inches) and the removal of the unit is simplified due to great design features. The bus interface unit accepts a wire gauge of AWG #14 and it supports the usage

of a communications bus if necessary.