GE Genius I-O Series Service Manual

IC660BBS100

1. Description

The IC660BBS100 is an isolated I/O Block manufactured by GE Fanuc that provides eight circuits in four isolated groups (each having two circuits). Its rated voltage is either 115 VAC or 125 VDC with a current of 2 Amps. The isolation is rated to withstand 250 VAC/VDC between any two groups.

2. Specifications

Specification	Value
Brand	**GE Fanuc**
Series	**Genius I-O**
Part	**Number IC660BBS100**
Product	**type I/O block**
Circuits	**8**
Failed	**switch diagnostic Yes**
Voltage	**rating 125 Volts DC / 115 Volts DC**
AC	**voltage range 93 to 132 Volts AC**
DC	**voltage range 105 to 132 Volts DC**
Peak	**output current 15 Amps**
Heat	**dissipation 16.8 Watts Description**
The	**GE Fanuc IC660BBS100 I/O block is a 115 Volts AC and 125 Volts DC rated isolated I/O block in the GE Genius I/O series. The IC660BBS100 I/O block has 4 isolated groups of 2 I/O circuits and each group is rated for operation at 125 Volts DC or 115 Volts AC. The IC660BBS100 I/O block reports a failed switch diagnostics message if the commanded state of an output is not the same as the state of the block's own internal switch. The isolation between a group and ground on the IC660BBS100 I/O block is rated for 250 Volts AC continuous. The transient rating is 2000 Volts peak for a duration of 10 seconds. The dimensions of the IC660BBS100 I/O block are 8.83 x 3.5 x 3.94 inches. The approxi**

3. Product Information

The IC660BBS100 is an isolated I/O Block manufactured by GE Fanuc that provides eight circuits in four isolated groups (each having two circuits). Its rated voltage is either 115 VAC or 125 VDC with a current of 2 Amps. The isolation is rated to withstand 250 VAC/VDC between any two groups.

Electronic fusing is built in for every circuit being used as an output. Should a short circuit occur, the circuit will shut down after five microseconds. However, the block can easily be restarted from the CPU or from a handheld monitor. Additional diagnostic checks performed by the block include unexpected shutdown, power overload, detection of load absence, and over temperature. An isolated block can be configured as input only, output only, or a combination of the two.

Each circuit comes with its own LED responsible for indicating threshold voltage for a circuit configured for input. For an output circuit, it indicates the mode configured by the CPU. Some of the configurable features of the IC660BBS100 block include bus switching control, presence of a dual power circuitry (i.e., both DC and AC circuitry), an input filter time that is easily selectable ranging from 10 ms to 100 ms, test capability of output pulse, and CPU redundancy type.

The block is 100% compatible with a hand-held monitor (models IC660HHM501 and IC660HHM500). IC660BBS100 is also compatible with any bus controller manufactured by GE Fanuc. During field wiring, connections are made using simple tools such as standard screws and screwdrivers. Each terminal block accepts 1 AWG size #12 or two AWG #22 wires. Also accommodated are ring terminals with a width of up to 0.27 inches with a minimum opening for screw size #6. This block has been replaced by IC660BBS102.

The IC660BBS100 Isolated I/O Block belongs to the GE Fanuc Genius I/O series of I/O modules. It comes with 4 isolated groups of 2 I/O circuits each for a total of 8 I/O. It is compatible with the IC660HHM501 hand-held monitor which can be used for the configuration of the block. This I/O block is backward compatible with the previous block versions. The IC660BBS100 Isolated I/O Block has an LED to indicate the operating status of each of its I/O circuits. Additionally, each circuit of the module has a built-in thermal sensor. The block's diagnostic facilities are made to report all the faults of the module to the hand-held programmer so that the users can take the necessary corrective actions as quickly as possible.

The IC660BBS100 Isolated I/O Block has an I/O circuit which is rated to operate at a nominal voltage of 115 Volts AC or 125 Volts DC. It can perform a variety of diagnostic checks including no-load detection, over-temperature detection, open-wire detection for the tri state inputs, and overload detection, and it can shut down to protect itself. This isolated I/O block can act as an input-only, output-only, or combination block. Once it is configured as an input-only block, all the circuits act as regular inputs and tri-state inputs. The configurable features of the IC660BBS100 Block are its output pulse test capability, CPU redundancy, bus switching module control, and selectable input filter times. It also comes with an internal electronic short circuit trip for safety. The heat dissipation rating of the module is 18.8 Watts. Its dimensions are 8.83 x 3.5 x 3.94 inches and its approximate weight is 4 pounds. It is recommended to configure the module as a combination block to have a mix of inputs and outputs. The IC660BBS100 I/O block is an 8-circuit I/O block. The IC660BBS100 I/O block reports a failed switch when when there is a mismatch between the commanded state and the internal state of a switch. Technical specifications for IC660BBS100

Brand GE Fanuc

Series Genius I-O

Part Number IC660BBS100

Product type I/O block

Circuits 8

Failed switch diagnostic Yes

Voltage rating 125 Volts DC / 115 Volts DC

AC voltage range 93 to 132 Volts AC

DC voltage range 105 to 132 Volts DC

Peak output current 15 Amps

Heat dissipation 16.8 Watts Description

The GE Fanuc IC660BBS100 I/O block is a 115 Volts AC and 125 Volts DC rated isolated I/O block in the GE Genius I/O series. The IC660BBS100 I/O block has 4 isolated groups of 2 I/O circuits and each group is rated for operation at 125 Volts DC or 115 Volts AC. The IC660BBS100 I/O block reports a failed switch diagnostics message if the commanded state of an output is not the same as the state of the block's own internal switch. The isolation between a group and ground on the IC660BBS100 I/O block is rated for 250 Volts AC continuous. The transient rating is 2000 Volts peak for a duration of 10 seconds. The dimensions of the IC660BBS100 I/O block are 8.83 x 3.5 x 3.94 inches. The approximate block weight is 4 pounds. The heat dissipated by the module during operation is 16.8 Watts.

The operating temperature range for the IC660BBS100 I/O block is 0 to 60 degrees Celsius. The power required for controlling the block is a maximum of 8 Watts. The AC operating voltage range is 93 to 132 Volts AC and the DC operating voltage range is 105 to 132 Volts DC. The frequency range for AC operation is 47 to 63 Hertz. The power supply dropout time is 10 milliseconds per cycle. The peak output current per block is 15 Amps at 35 degrees Celsius and 7.5 Amps at 60 degrees Celsius. The IC660BBS100 I/O block comes with a 100-millisecond internal electronic short circuit trip (AC) and a 10-millisecond long time trip (DC). The IC660BBS100 I/O block is compatible with the GE Fanuc IC660HHM501 handheld monitor. The IC660BBS100 I/O block can be used with any GE Fanuc bus controller.