GE Genius I-O Series Service Manual

IC660BBD110

1. Description

The IC660BBD110 is a low leakage, discrete input block weighting 4 lbs., manufactured by GE Fanuc. It comes with 16 points and is rated 115 Volt AC with an input and operating voltage range of 93-132 VAC and a frequency of 47-63 Hz. This block has a storage temperature range of -40 degrees Celsius to +100 degrees Celsius.

2. Specifications

Specification	Value
Manufacturer	GE Fanuc
Series	Genius Block I/O
Part	Number IC660BBD110
Module	type Discrete input block I/O
Input	Voltage Range 93-132 VAC
Nominal	Input voltage 115VAC
Input	Current (mA) 80mA max. block current plus 200mA max. input circuit current
Number	of points Sixteen (16)
Input	off state, input on state Programmable threshold (25% to 85%)
Input	shorted wire Fixed 10%-90% thresholds
Selectable	input filter times 10 to 100ms in 10ms increments
Input	diagnostics Open Wire, Short Circuit
Input	to ground or serial bus Isolation 1500V
Product	Type Discrete Input Block
Number	of Inputs 16
Number	of Outputs None
Voltage	Type AC
Operating	Temperature 32 to 140 degrees Fahrenheit
Storage	Temperature -40 to 212 degrees Fahrenheit
Fault	Detection Short Wire Faults and Open Wire Faults
Description	
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3. Product Information

The IC660BBD110 is a low leakage, discrete input block weighting 4 lbs., manufactured by GE Fanuc. It comes with 16 points and is rated 115 Volt AC with an input and operating voltage range of 93-132 VAC and a frequency of 47-63 Hz. This block has a storage temperature range of -40 degrees Celsius to +100 degrees Celsius.

LEDs on the IC660BBD110 input block work together with diagnostic software to prompt or alert the user if a switch fails, if temperature is above threshold levels, or if a load exceeds design parameters. Input thresholds for each block can be programmed. If an LED displays ON for an input circuit, this indicates threshold voltage. In the case of output circuits, a lit LED indicates that the specific circuit is working normally as expected via commands from the CPU. The I/O LED emits steadily when the CPU is running and communicating.

Fault reporting to the CPU can be enabled or disabled on a circuit-by-circuit basis. If fault reporting is disabled, data that would have gone to both the CPU and the handheld monitor is sent only to the handheld monitor. Distribution of IC660BBD110 block's input and output circuits can be configured as either all output, input, or a combination of the two. The user should always disconnect power first before wiring to ensure safe removal of the block. The GE Fanuc IC660BBD110 is an intelligent 16-point discrete input block. This module is a 115VAC discrete input block, with operating voltage range of 93-132VAC, 47-63 Hz. This module directly communicates to the processor or communication adapter via the Genius protocol. This module supports right side up or upside-down orientation. Technical specifications for IC660BBD110

Manufacturer GE Fanuc

Series Genius Block I/O

Part Number IC660BBD110

Module type Discrete input block I/O

Input Voltage Range 93-132 VAC

Nominal Input voltage 115VAC

Input Current (mA) 80mA max. block current plus 200mA max. input circuit current

Number of points Sixteen (16)

Input off state, input on state Programmable threshold (25% to 85%)

Input shorted wire Fixed 10%-90% thresholds

Selectable input filter times 10 to 100ms in 10ms increments

Input diagnostics Open Wire, Short Circuit

Input to ground or serial bus Isolation 1500V

Product Type Discrete Input Block

Number of Inputs 16

Number of Outputs None

Voltage Type AC

Operating Temperature 32 to 140 degrees Fahrenheit

Storage Temperature -40 to 212 degrees Fahrenheit

Fault Detection Short Wire Faults and Open Wire Faults

Description

The GE Fanuc IC660BBD110 is a stand-alone block I/O that features Sixteen (16) input points. This module supports the Genius bus communication protocol, allowing it be installed near machines without the need of a baseplate, processor or communication adapter installed along the module. This module is an intelligent input module that supports daisy-chain topology and reports directly to a controller or communication adapter connected to the same network.

The IC660BBD110 input channels are designed to receive signal voltage range of 93-132VAC with frequency of 47-63 Hz with nominal value of 115VAC. It has a programmable threshold of 25% to 85% for both ON and OFF states. This module is also equipped with internal channel diagnostics, capable of detecting open and shorted wire. Both diagnostic properties also have programmable thresholds of 25% - 85% and fixed threshold of 10-90%, respectively. This module exhibits an input processing tume of 1 ms with software configurable input filters of 10 to 100 ms, in 10 ms increments. This input filter allow rejection of noise and signal bounces.

The IC660BBD110 module measures 8.83" (22.44cm) x 3.34" (8.48cm) x 3.91" (9.93cm) (HxWxD) and weighs 4 lbs. (1.8 kg). It comes with LED indicators such as Unit OK, I/O enabled and individual input LEDs. It has internal isolation of 1500V from ground to serial bus.

The IC660BBD110 connects to the Genius Bus via the terminal block installed below the module's LED indicators. This terminal is a 3-pin terminal that may be accessed by opening the hinged door. This module may be installed in right-side up or upside-down orientation.

The IC660BBD110 discrete input block comes with advanced diagnostics and selectable thresholds. Some of the most common input connection contact closure connections with devices like switches, limit switches, and pushbuttons. It can make connections with 2-wire proximity switch inputs and 3-wire proximity switch inputs. The GE Fanuc Genius I-O IC660BBD110 discrete input block operates safely and at full power in a temperature range of 32 to 140 degrees Fahrenheit (0 to 60 degrees Celsius), and it can be stored safely in an environment with a temperature range of -40 to 212 degrees Fahrenheit (-40 to 100 degrees Celsius.) The safe ambient humidity levels for the IC660BBD110 discrete input block in operation and in storage are between 5 and 95%, non-condensing. This input block weighs 4 pounds or 1.8 kilograms. It measures 8.8 x 3.3 x 3.9 inches (22.4 x 8.4 x 9.9 centimeters). For device protection, the IC660BBD110 discrete input block can be configured by software to detect shorted wire faults and open wire faults.