# GE Genius I-O Series Service Manual

IC660EBA105

## 1. Description

GENIUS Electronic Assembly for BBA105 (EBA Only) 115Vac/125Vdc IC660E IC660EB IC660EBA The IC660EBA105 is a component of the Genius Block I/O module from GE Fanuc Automation now under Emerson Automation. This component is an electronic assembly that is used to form a Genius I/O module, particularly paired with IC660TBA105 terminal base and IC660BBA105 115 / 125 VAC current sourcing 6-channel analog output block. Technical specifications for IC660EBA105

## 2. Specifications

| Specification | Value |
|---|---|
| Brand | **GE Fanuc** |
| Series | **Genius I-O** |
| Manufacturer | **GE Fanuc / Emerson Automation** |
| Part | **Number IC660EBA105** |
| Series | **Block I/O** |
| Type | **Electronic Assembly** |
| Part | **Number IC660EBA105** |
| Main | **equipment Analog output block** |
| Product | **Description Electronics Assembly** |
| Power | **supply voltage 93-132V AC and 105-145V DC** |
| Compatible | **Module IC660BBA105 Six (6) channel current sourcing analog output** |
| Maximum | **current 250 mA (AC) and 140 mA (dc)** |
| Compatible | **Terminal base IC660TBA105** |
| Frequency | **47-63 Hz** |
| Nominal | **Operating voltage 115 VAC, / 125 VDC nominal; 125 VDC** |
| Ripple | **10% max.** |
| Supply | **voltage range 93-132 VAC, 47-63 Hz; 105-145 VDC with 10% ripple** |
| Accuracy | **0.15% full scale reading at 25 Â°C** |
| Block | **to Block isolation 1500 V for 1 minute** |
| Thermal | **drift 35 PPM per degrees Celsius** |
| Group | **to group isolation N/A** |
| Diagnostics | **Yes** |
| Storage | **temperature of -40 Degree Celsius to 100 Degree Celsius** |
| Operating | **temperature 0 Degree to 60 Degree Celsius** |
| 5-95% | **non-condensing Operating vibration** |
| 5-10 | **Hz, 2” or 5.088 displacement Product lifecycle** |

## 3. Product Information

GENIUS Electronic Assembly for BBA105 (EBA Only) 115Vac/125Vdc IC660E IC660EB IC660EBA The IC660EBA105 is a component of the Genius Block I/O module from GE Fanuc Automation now under Emerson Automation. This component is an electronic assembly that is used to form a Genius I/O module, particularly paired with IC660TBA105 terminal base and IC660BBA105 115 / 125 VAC current sourcing 6-channel analog output block. Technical specifications for IC660EBA105

Brand GE Fanuc

Series Genius I-O

Manufacturer GE Fanuc / Emerson Automation

Part Number IC660EBA105

Series Block I/O

Type Electronic Assembly

Part Number IC660EBA105

Main equipment Analog output block

Product Description Electronics Assembly

Power supply voltage 93-132V AC and 105-145V DC

Compatible Module IC660BBA105 Six (6) channel current sourcing analog output

Maximum current 250 mA (AC) and 140 mA (dc)

Compatible Terminal base IC660TBA105

Frequency 47-63 Hz

Nominal Operating voltage 115 VAC, / 125 VDC nominal; 125 VDC

Ripple 10% max.

Supply voltage range 93-132 VAC, 47-63 Hz; 105-145 VDC with 10% ripple

Accuracy 0.15% full scale reading at 25 Â°C

Block to Block isolation 1500 V for 1 minute

Thermal drift 35 PPM per degrees Celsius

Group to group isolation N/A

Diagnostics Yes

Storage temperature of -40 Degree Celsius to 100 Degree Celsius

Operating temperature 0 Degree to 60 Degree Celsius

5-95% non-condensing Operating vibration

5-10 Hz, 2” or 5.088 displacement Product lifecycle Description

The IC660EBA105 is a Genius I/O component that is part of the Six (6) channel, current sourcing output module. This part number refers to an electronic assembly component which is One (1) of the Two (2) components that form the analog output module. The IC660EBA105 being part of the Genius I/O series provides modularity and contributes to faster maintenance and module servicing. In case of a module failure, component replacement is simplified thus, contributing to lesser downtime. This component is formerly produced by Ge Fanuc Automation but with the recent acquisition of Emerson Automation, the Genius I/O series is now under the latter company. The IC660EBA105 is mounted without power as the electronic circuitry is highly sensitive to voltage arcing. In addition, never touch the electronic parts and work on a properly grounded workstation and touch a grounded object before touching the electronics assembly. The electronics assembly contains the Digital to Analog Converter (DAC) with 12-bit conversion resolution, filter, module isolation rated 1500 V for a 1-minute duration. The IC660EBA105 is combined with other accessories particularly the IC660TBA105 terminal base for connecting the output channels to the modulating devices. These components form the IC660BBA105 115 / 125 VAC current sourcing 6-channel analog output block which provides module personality as well as the status LED indicators. The fully formed module is capable of detecting output underrange and output overrange diagnostics as well as output feedback errors which are reported to the host CPU. The created Genius analog output module is capable of generating 0-20 mA and 4-20 mA output signals.

The IC660EBA105 electronic assembly that is an essential component of the source analog output block that belongs to the Genius I/O series made by GE Fanuc Automation. This specific block powers different circuits in a PLC system. Each of the 6 outputs present in the block provides a power level of 4 to 20 milliamps in a current loop. These outputs are BSM outputs and they have an accuracy rating of 0.15 percent at a specific temperature of 25 degrees Celsius. This output block comes with an electronics assembly and it corresponds to a dual voltage block. The GE Fanuc Automation IC660EBA105 source analog output block has a power supply voltage of 93 to 132 Volts AC or 105 to 145 Volts DC. It also comes with 2 LEDs and it provides an isolation rating of up to 1500 Volts between blocks.