# GE Series 90-30 Series Service Manual

IC693CMM302

## 1. Description

The IC693CMM302 is a Genius communication module that is part of the Series 90-30 Programmable Logic Controller (PAC) series formerly manufactured by GE Fanuc Automation, now under Emerson Automation. This module supports data exchange up to 31 devices with a global data length size of 128 bytes (Transmit) and 128 Bytes (receive) from up to 31 other devices. Supported register addresses are %G, %I, %Q, %AI, %AQ, and %R. This module is typically used for implementing distributed I/O architecture.

## 2. Specifications

| Specification | Value |
|---|---|
| Manufacturer | **GE Fanuc** |
| Series | **Series 90-30** |
| Manufacturer | **GE Fanuc / Emerson Automation** |
| Part | **Number IC693CMM302** |
| Series | **Series 90-30** |
| Product | **Type Enhanced Genius Communications Module** |
| Product | **Description Genius communication module** |
| Number | **of Bus Devices Supported 31** |
| Slot | **width Single slot** |
| Compatible | **Host Device GE Series 90-30 PLC** |
| Slot | **assignment Any slot except CPU slot** |
| Compatible | **Baseplates CPU, Expansion, and Remote Baseplates** |
| Mounting | **location Series 90-30 baseplate** |
| LEDs | **2 (OK LED and COM LED)** |
| Number | **of supported devices 31** |
| Data | **Monitoring By an Industrial or Personal Computer** |
| Global | **Data length (Transmit) 128 Bytes** |
| Compatible | **with GCMs Not Compatible** |
| Global | **Data Length (Received) 128 bytes** |
| Product | **Lifecycle Status* Discontinued/Obsolete** |
| Supported | **Registers %G, %I, %Q, %AI, %AQ, and %R** |
| Status | **LED indicators Module OK; COMM** |
| No. | **of modules per PLC Up to 2 devices** |
| Backplane | **current draw < 300 mA at 5VDC** |
| The | **IC693CMM302 is a Genius Communication module belonging to the Series 90-30 Program** |

## 3. Product Information

The IC693CMM302 is a Genius communication module that is part of the Series 90-30 Programmable Logic Controller (PAC) series formerly manufactured by GE Fanuc Automation, now under Emerson Automation. This module supports data exchange up to 31 devices with a global data length size of 128 bytes (Transmit) and 128 Bytes (receive) from up to 31 other devices. Supported register addresses are %G, %I, %Q, %AI, %AQ, and %R. This module is typically used for implementing distributed I/O architecture.

Technical specifications for IC693CMM302

Manufacturer GE Fanuc

Series Series 90-30

Manufacturer GE Fanuc / Emerson Automation

Part Number IC693CMM302

Series Series 90-30

Product Type Enhanced Genius Communications Module

Product Description Genius communication module

Number of Bus Devices Supported 31

Slot width Single slot

Compatible Host Device GE Series 90-30 PLC

Slot assignment Any slot except CPU slot

Compatible Baseplates CPU, Expansion, and Remote Baseplates

Mounting location Series 90-30 baseplate

LEDs 2 (OK LED and COM LED)

Number of supported devices 31

Data Monitoring By an Industrial or Personal Computer

Global Data length (Transmit) 128 Bytes

Compatible with GCMs Not Compatible

Global Data Length (Received) 128 bytes

Product Lifecycle Status* Discontinued/Obsolete

Supported Registers %G, %I, %Q, %AI, %AQ, and %R

Status LED indicators Module OK; COMM

No. of modules per PLC Up to 2 devices

Backplane current draw < 300 mA at 5VDC

The IC693CMM302 is a Genius Communication module belonging to the Series 90-30 Programmable Logic Controller (PLC) series of Emerson Automation, formerly by GE Fanuc automation. This module is a single-slot width module, providing Genius protocol connectivity, enabling communicating with up to 31 devices and a maximum of 62 devices per controller as the Series 90-30 systems permit configuration of up to Two (2) IC693CMM302 per controller. The IC693CMM302 allows 128 bytes of transmitted and 128 bytes of received Global data per IC693CMM302 and supports PLC registers such as Global register (%G), Discrete Input (%I), Discrete output (%Q), Analog input (%AI), Analog output (%AQ), and Register memory (%R). It supports software-based diagnostics such as status bits, fault reporting to series 90-70 PLC. Environmental ratings of this module include 0 oC to +60 oC (+32 oF to +140 oF) operating temperature; Storage temperature of –25 oC to +70 oC (– 13 oF to +158 oF); Humidity of 5% to 95% (non–condensing) while the mechanical ratings include 0.2-inch displacement 5Hz to 10Hz and 1 G 10Hz to 200Hz operating vibration and operating shock of 5 G 10Ms duration. Aside from Global data exchange, the IC693CMM302 allows data monitoring through a personal or industrial computer, monitoring data with the use of I/O blocks, device communication over the Genius bus, and I/O emulation. The IC693CMM302 has a backplane power consumption of <300 mA at 5VDC. Aside from Series 90-30 PLC, it can be used with Series 90-70, Series Six PLCs as well as the Genius Hand-Held Monitor (HHM) for local configuration.

The Series 90-30 IC693CMM302 communication module was designed and manufactured by GE Fanuc to be a GCM+ device, also known as an enhanced Genius communications module. The IC693CMM302 enhanced Genius communications module can communicate with global data between up to 32 devices. These devices are a GE Series 90-30 PLC and 31 other devices that are connected to a genius bus. It is recommended to install the IC693CMM302 enhanced Genius communications module on the CPU baseplate of the host PLC system for the most efficient operation, but it can also be installed on the remote baseplates or the expansion baseplates in the same system. However, enhanced Genius communications modules cannot be installed in PLCs that have regular Genius communications modules or GCMs in them. Multiple enhanced Genius communications modules like the IC693CMM302 module can be installed in a single PLC system, and each enhanced Genius communication module has its own genius bus, which means that each of these modules can connect to and communicate with up to 31 additional devices at a time. For example, a Series 90-30 GE PLC that has 2 enhanced Genius communications modules in it can communicate with as many as 62 additional devices at a time. The IC693CMM302 enhanced Genius communications module is primarily used to exchange global data, but it can also handle data monitoring with an industrial or personal computer, peer-to-peer communication and master-slave communication between the bus devices, and data monitoring from the genius I/O blocks (note that the communications module cannot control these I/O blocks.)