GE Series 90-30 Series Service Manual

IC693APU301

1. Description

The IC693APU301 is an Axis Positioning Module (APM) from the Series 90-30 Programmable Logic Controller (PLC) platform. Formerly manufactured by GE Fanuc, now under Emerson Automation, this module features a single motion axis for controlling the servo motor and implementing motion or position control.

2. Specifications

Specification	Value
Brand	**GE Fanuc**
Series	**Series 90-30**
Manufacturer	**GE Fanuc (Former); Emerson Automation (Current)**
Part	**Number IC693APU301**
Series	**Series 90-30**
Product	**Description Axis Positioning Module**
Product	**Description Axis Positioning Module (APM)**
No.	**of Axes 1 Axis**
No.	**of supported Axis One (1)**
Servo	**Loop Update 1 millisecond**
Communication	**Ports One (1) Axis module; 25-pin Servo connection**
Operating	**Modes: Standard mode; Follower mode**
Module	**LED indicators EN1, EN2, STST, OK and CFG**
Connector	**Types 24-pin High Density, 25-pin D Type**
Slot	**width Single slot**
Compatibility	**Series 90-30 PLCs**
Compatible	**CPU CPU 311, CPU 313, CPU 323, CPU 331 and higher**
Product	**Lifecycle Status* Discontinued/Obsolete**
No.	**of permitted modules CPU 311, CPU 313 and CPU 323: Three (3) APM modules CPU 331 and higher: Eight (8) APM modules**
No.	**of modules per baseplate: Three (3)**
Compatible	**cables: IC693CBL311 (10 feet/3 meters); IC693CBL319 (3 feet/1 meter); IC693CBL317 (10 feet/3 meters) with an 8” external shield pigtail and**

3. Product Information

The IC693APU301 is an Axis Positioning Module (APM) from the Series 90-30 Programmable Logic Controller (PLC) platform. Formerly manufactured by GE Fanuc, now under Emerson Automation, this module features a single motion axis for controlling the servo motor and implementing motion or position control.

Technical specifications for IC693APU301

Brand GE Fanuc

Series Series 90-30

Manufacturer GE Fanuc (Former); Emerson Automation (Current)

Part Number IC693APU301

Series Series 90-30

Product Description Axis Positioning Module

Product Description Axis Positioning Module (APM)

No. of Axes 1 Axis

No. of supported Axis One (1)

Servo Loop Update 1 millisecond

Communication Ports One (1) Axis module; 25-pin Servo connection

Operating Modes: Standard mode; Follower mode

Module LED indicators EN1, EN2, STST, OK and CFG

Connector Types 24-pin High Density, 25-pin D Type

Slot width Single slot

Compatibility Series 90-30 PLCs

Compatible CPU CPU 311, CPU 313, CPU 323, CPU 331 and higher

Product Lifecycle Status* Discontinued/Obsolete

No. of permitted modules CPU 311, CPU 313 and CPU 323: Three (3) APM modules CPU 331 and higher: Eight (8) APM modules

No. of modules per baseplate: Three (3)

Compatible cables: IC693CBL311 (10 feet/3 meters); IC693CBL319 (3 feet/1 meter); IC693CBL317 (10 feet/3 meters) with an 8” external shield pigtail and IC693CBL320 (3 feet/1 meter) with an 8” external shield pigtail

Product Lifecycle Discontinued

The IC693APU301 is an Axis Positioning Module (APM) from the Series 90-30 Programmable Logic Controller (PLC) series that is formerly produced by GE Fanuc Automation, currently under Emerson Automation. This module comes with a Single Axis control for implementing motion and position control of Servo motors and is configurable for standard and follower mode. The IC693APU301 when configured in standard mode, this APM module combined PLC Logic and high-performance motion control of the IC693APU301 for creating a single integrated system. It also supports follower mode wherein the APU provides high-performance electronic gearing for continuous master and slave applications. This module comes with One (1) 9-pin D-shell axis port connector and One (1) high-density port for APM connections. It also has LED status indicators such as EN1, EN2, STST, OK, and CFG LEDs. This module is compatible for use with a variety of CPUs such as CPU 311, CPU 313 and CPU 323 wherein up to Three (3) APM modules can be installed. When used with CPU 331 and higher, up to Eight (8) APM modules can be installed with a maximum of Three (3) APM module instances per baseplate. Motion programs can be developed using the Motion Programmer software package and configured using the VersaPro software package version 1.1 or later or the Logic-Developer PLC. A variety of communication cables can be used with the IC693APU301 module and come in different lengths. These cables include IC693CBL311 (10 feet/3 meters); IC693CBL319 (3 feet/1 meter); IC693CBL317 (10 feet/3 meters) with an 8” external shield pigtail and C693CBL320 (3 feet/1 meter) with an 8” external shield pigtail.

The GE Fanuc IC693APU301 Axis Positioning Module or APM is a single-axis motion control module that is made for the Series 90-30 PLCs or programmable logic controllers. It is easy to use and it is a fully programmable module that allows the users to integrate high-performance control into their PLC systems. The IC693APU301 Axis Positioning Module can be set to operate in the follower mode or in the standard mode. The follower mode offers electronic gearing for continuous applications. When this module is used with the Series 90-30 PLCs, it operates as a combined motion control package. This APM controls the motion of the axis while the PLC it is connected to transfers data automatically between the PLC tables and the APM. The IC693APU301 Axis Positioning Module can be installed in any Series 90-30 CPU or expansion baseplate. A modular CPU which is a 331 model or higher can have up to 8 APM modules in 1 system, with a maximum of 3 APM modules per baseplate. A maximum of 10 motion programs can be generated and stored in the APM motion programmer software package. It has a high-density connector that contains a connection for Axis 1 and another connector for general-purpose connections. These high-density connectors are connected to the drive using short cables that have 24-pin I/O connectors. This APM contains logic that compares the actual position of the axis with the programmed or commanded position. The IC693APU301 Axis Positioning Module offers a real-time interface between the PLC and a servo-controlled axis. Some of the benefits of using this module include extended application capabilities, simplified troubleshooting, and efficient general-purpose input capabilities.