GE Series 90-30 Series Service Manual

IC693MDL753

1. Description

The IC693MDL753 is a Series 90-30 positive logic discrete output module. This module is formerly produced by GE Fanuc, now acquired by Emerson Automation. It features Thirty-Two (32) discrete output channels in Four (4) groups of Eight (8) channels. Each channel is configurable to deliver an output voltage range of 12-24 VDC with an output current of 0.5 Amperes per point

2. Specifications

Specification	Value
Brand	**GE Fanuc**
Series	**Series 90-30**
Manufacturer	**GE Fanuc; Emerson Automation (Current)**
Series	**Series 90-30**
Part	**Number IC693MDL753**
Product	**Description Discrete output module**
Product	**Description Discrete output module**
Product	**type Digital I/O**
No	**of Channels Thirty-Two (32)**
No.	**of output groups Four (4)**
Compatibility	**GE Fanuc 90-30 PLCs**
No.	**of groups Four (4)**
Channels	**per group Eight (8)**
Output	**points 32**
No.	**of channels per group Eight (8)**
Output	**voltage range 10.2-28.8 VDC**
Module	**current draw 260 milliamps**
Isolation:	**1500 volts between field side and logic side; 250 Volts between groups**
Nominal	**output voltage 12-24 VDC**
Module	**voltage input 5 Volts DC**
Output	**signal range 12 to 24 volts DC (+20%, -15%)**
Maximum	**inrush current 5.4 A for 20 ms**
Output	**point current draw 16 milliamps**
Nominal	**Input voltage 12 / 24 VDC**
Off	**response time, maximum 0.5 ms**
LED	**current draw 4.7 milliamps**
Output	**current 0.5 Amperes per point; 4 Amperes per module; 3 Amperes per group common pin**
Output	**Voltage Drop 0.3**

3. Product Information

The IC693MDL753 is a Series 90-30 positive logic discrete output module. This module is formerly produced by GE Fanuc, now acquired by Emerson Automation. It features Thirty-Two (32) discrete output channels in Four (4) groups of Eight (8) channels. Each channel is configurable to deliver an output voltage range of 12-24 VDC with an output current of 0.5 Amperes per point

Technical specifications for IC693MDL753

Brand GE Fanuc

Series Series 90-30

Manufacturer GE Fanuc; Emerson Automation (Current)

Series Series 90-30

Part Number IC693MDL753

Product Description Discrete output module

Product Description Discrete output module

Product type Digital I/O

No of Channels Thirty-Two (32)

No. of output groups Four (4)

Compatibility GE Fanuc 90-30 PLCs

No. of groups Four (4)

Channels per group Eight (8)

Output points 32

No. of channels per group Eight (8)

Output voltage range 10.2-28.8 VDC

Module current draw 260 milliamps

Isolation: 1500 volts between field side and logic side; 250 Volts between groups

Nominal output voltage 12-24 VDC

Module voltage input 5 Volts DC

Output signal range 12 to 24 volts DC (+20%, –15%)

Maximum inrush current 5.4 A for 20 ms

Output point current draw 16 milliamps

Nominal Input voltage 12 / 24 VDC

Off response time, maximum 0.5 ms

LED current draw 4.7 milliamps

Output current 0.5 Amperes per point; 4 Amperes per module; 3 Amperes per group common pin

Output Voltage Drop 0.3 volt, maximum

Inrush current 5.4 Amps

Current draw 260 mA

Off-state Leakage 1 mA maximum

Product Lifecycle Status* Discontinued/Obsolete

On response time, maximum 0.5 ms

Off response time, maximums 2 ms

Product Lifecycle Status Discontinued/Obsolete

The IC693MDL753 is a digital output module from the Series 90-30 Programmable Logic Controller (PLC) family. This module has Thirty-Two (32) positive logic output channels, generating 102 - 28.8 output voltage range with nominal voltages of 12 - 24 VDC. The IC693MDL753 is formerly manufactured by GE Fanuc Automation, now acquired by Emerson Automation. This module comes with output groupings specifically, Four (4) groups of Eight (8) outputs each. Each output group has 250 Volts isolation and 100 Volts between field side and logic side or optical isolation. The output current ratings of the IC693MDL753 are 0.5 Amperes per point with a maximum of 4 Amperes per group and a maximum of 3 Amperes per group common pin. It generates an inrush current of 5.4 Amperes for 10 ms while the On-state voltage drop of 0.3 VDC. The Off-state leakage current is 0.1 mA while the On and Off response time is typical for both signal transitions which is 0.5 ms. The internal power consumption of the IC693MDL753 is 260 mA source from the 5 VDC backplane. The IC693MDL753 is compatible with being used as a local I/O and distributed I/O module. It can be installed in any available slot of the chassis except the designated CPU, communication adapter, and specialty module slots. The IC693MDL753 occupies a single slot and can be installed as many as needed, limited by the I/O capacity and memory of the host controller. For wiring electrical loads to this discrete output module, recommended manufacturer cable assembly is IC693CBL315.

The IC693MDL753 I/O module is a 32-point digital I/O module. The IC693MDL753 I/O module has been developed by GE Fanuc for Series 90-30 of the GE programmable logic controllers or PLCs. The peak current consumption rating of the module is 260 milliamps when it is using 5 Volts DC voltage that is supplied from the PLC backplane. Each output point consumes 16 milliamps of current when it is in the ON state and the indicator LED for each output point consumes 4.7 milliamps of current. The 32 points are arranged into 4 groups of 8 outputs. When running on 24 Volts DC voltage, each group of points consumes 16.5 milliamps of current when all 8 outputs in the group are in the ON state. When running on 12 Volts DC voltage, each group consumes 9.6 milliamps of current when all 8 outputs in the group are in the ON-state. The inrush current for the IC693MDL753 I/O module is 5.4 Amps. The on-response time and off-response time are both 0.5 milliseconds maximum. The maximum output current per point is 0.5 Amps and the maximum output current per group is 4 Amps. The output voltage range for the IC693MDL753 I/O module is 10.2 to 28.8 Volts DC. The outputs on the module are positive logic outputs. The outputs switch loads on the positive side of the power supply and they supply current to the load. Each group of output points can be used for a different load. Opto-couplers provide isolation between the logic side and the field side of the IC693MDL753 I/O module. When the PLC’s CPU stops, all the module outputs are forced into the OFF state. Connections to output circuits are made with the 2 male 24-pin connectors on the front of the module.