GE Series 90-30 Series Service Manual

IC693MDL930

1. Description

The IC693MDL930 is a Series 90-30, relay output module. This module features Eight (8) individually isolated Form A relay outputs. Each relay contact has a maximum current rating of 4 Amperes and is operable at voltage ranges of 5-30 VDC / 5-250 VAC. This module has a backplane current consumption of 6 mA with all outputs from a 5-volt bus on the backplane and 70 mA with all outputs

2. Specifications

Specification	Value
Brand	**GE Fanuc**
Series	**Series 90-30**
Manufacturer	**GE Fanuc**
Manufacturer	**GE Fanuc; Emerson Automation (Current)**
Part	**Number IC693MDL930**
Product	**Description Discrete output module**
Series	**Series 90-30**
Product	**type Digital I/O**
Eight	**(8), individually isolated Isolation:**
Part	**Number IC693MDL930**
Relay	**outputs 8**
1500	**volts between field side and logic side; 500 volts between groups Output voltage range**
Product	**Description Relay Output module**
Output	**switching capacity 4 Amps**
5	**to 30 volts DC 5 to 250 volts AC, 50/60 Hz**
No	**of Channels Eight (8)**
Fuses	**No**
Nominal	**output voltage 24 VDC; 120 VAC / 240 VAC**
Output	**groupings Individually isolated channels**
LED	**indicators Yes**
Maximum	**Load 4 amps resistive maximum per output: 2 amps pilot duty per output 20 amps maximum per module for UL installations**
Contact	**form Form A contacts (Normally Open (N.O.)**
Rated	**voltage 24 Volts DC or 120 / 240 Volts AC**
Minimum	**load 10 mA**
Maximum	**output current 4 Amperes, maximum for resistive loads per point; 2 Amperes for pil**

3. Product Information

The IC693MDL930 is a Series 90-30, relay output module. This module features Eight (8) individually isolated Form A relay outputs. Each relay contact has a maximum current rating of 4 Amperes and is operable at voltage ranges of 5-30 VDC / 5-250 VAC. This module has a backplane current consumption of 6 mA with all outputs from a 5-volt bus on the backplane and 70 mA with all outputs

Technical specifications for IC693MDL930

Brand GE Fanuc

Series Series 90-30

Manufacturer GE Fanuc

Manufacturer GE Fanuc; Emerson Automation (Current)

Part Number IC693MDL930

Product Description Discrete output module

Series Series 90-30

Product type Digital I/O

Eight (8), individually isolated Isolation:

Part Number IC693MDL930

Relay outputs 8

1500 volts between field side and logic side; 500 volts between groups Output voltage range

Product Description Relay Output module

Output switching capacity 4 Amps

5 to 30 volts DC 5 to 250 volts AC, 50/60 Hz

No of Channels Eight (8)

Fuses No

Nominal output voltage 24 VDC; 120 VAC / 240 VAC

Output groupings Individually isolated channels

LED indicators Yes

Maximum Load 4 amps resistive maximum per output: 2 amps pilot duty per output 20 amps maximum per module for UL installations

Contact form Form A contacts (Normally Open (N.O.)

Rated voltage 24 Volts DC or 120 / 240 Volts AC

Minimum load 10 mA

Maximum output current 4 Amperes, maximum for resistive loads per point; 2 Amperes for pilot duty loads per point; 20 Amperes per module for UL installations

Operating voltage 5 to 30 Volts DC or 5 to 250 Volts AC

Maximum inrush current 5 Amperes

Response time 15 ms

Operating temperature 0 to 50 degrees Celsius

Current draw 6 mA (all outputs on) from 5 volt bus on backplane; 70 mA (all outputs on) from relay 24V bus on backplane

Operating voltages 5-30 / 5-250 VAC

Product Lifecycle Status* Discontinued/Obsolete

On response time, maximum 15 ms

Switching Frequency 20 Cycles per minute

Off response time, maximum 15 ms

Module width Single slot

Product Lifecycle Status Discontinued/Obsolete

Product lifecycle Obsolete

The IC693MDL930 is a discrete output module that is part of the Series 90-30 Programmable Logic Controller (PLC) series, formerly manufactured by GE Fanuc, now under Emerson Automation. This module is a single-slot width, Eight (8) individually isolated Normally Open (N.O.) contact of Form A outputs that are compatible for use with the Series 90-30 modular and embedded Central Processing Unit (CPU) module assemblies as local and distributed I/O component. Additionally, this module also supports the modern RX3i and RX7i systems as distributed output modules. This module is compatible for use with motor starters, solenoid-actuated devices, and indicating lamps. The IC693MDL930 contact outputs have current ratings of 4 Amperes, maximum for resistive loads per point; 2 Amperes for pilot duty loads per point, and 20 Amperes per module for UL installations while the module's minimum load is 10 mA. Each contact output is operable at nominal voltages of 24 VDC and 120 / 240 VDC while operating voltage ranges are 5-30 VDC / 5-250 VAC at a frequency of 50/60 Hz. It also generates a maximum inrush current of 5 Amperes while the maximum channel response time is 15 ms for both On and Off signal transition. This module has an internal power consumption of 6 mA with all outputs from a 5-volt bus on the backplane and 70 mA with all outputs from the relay 24V bus on the backplane. With individual isolation, each output channel can operate at different voltages providing maximum operational flexibility. The module's isolation ratings are 1500 volts between the field side and logic side and 500 volts between channels.

The GE IC693MDL930 module is a digital output module. The IC693MDL930 output module can be installed in any slot of a 5-slot or 10-slot backplane in a GE Fanuc 90-30 PLC system. The IC693MDL930 module has 8 normally open relay circuits for managing user loads. The output switching capacity of the individual module outputs is 4 Amps. Each module output is isolated from the other module outputs and each module output has its own common terminal. The IC693MDL930 module does not include any fuses. The power supply for the user field devices connected to the module outputs needs to be user-supplied. The LED indicators that display status of each output point are provided on the top side of the module. The rated voltage of the IC693MDL930 module is 24 Volts DC or 120 to 240 Volts AC. The operating voltage is 5 to 30 Volts DC or 5 to 250 Volts AC (at 50 to 60 Hertz). The peak load is 4 Amps of resistive current per output, 2 Amps of pilot duty current per output, and a maximum 20 Amps per IC693MDL930 module for UL installations. The minimum load is 10 milliamps and the maximum inrush current is 5 Amps. When the PLC backplane supplies 5 Volts DC voltage, the module draws 6 milliamps and when the PLC backplane supplies 24

Volts DC, the module draws 70 milliamps. The operating temperature range for the IC693MDL930 module is 0 to 50 degrees Celsius. Above this threshold the module output derates.

For switching inductive loads, the relay contact life is typical to the resistive load contact life when suppression circuits are used.