GE Series 90-70 Series Service Manual

IC697MDL940

1. Description

The IC697MDL940 is a Series 90-70, relay output module. This module features a total of Sixteen (16) output contacts which are comprised of Eight (8) individually isolated Form C relay outputs and Two (2) groups of Four (4) Form A outputs. This module has a maximum load current of 2.0 amps from 5 to 265 VAC (maximum), 47-63 Hz; 2.0 amps from 5 to 30 VDC (maximum);

2. Specifications

Specification	Value
Brand	**GE Fanuc**
Series	**Series 90-70**
Manufacturer	**GE Fanuc**
Manufacturer	**GE Fanuc; Emerson Automation (Current)**
Part	**number IC697MDL940**
Product	**Description Relay output module**
Series	**Series 90-70**
Rated	**voltage 120/240 Volts AC or 5/24/125 Volts DC**
No.	**of channels Eight (8) Form C (individually isolated); Eight (8) Form A**
Product	**Description Relay Output module**
Number	**of outputs 16**
No.	**of groups Two (2) Groups of Form A**
No	**of Channels Sixteen (16) Relay outputs**
Required	**current 750 milliAmps**
No.	**of channels per group Four (4) per group**
Output	**configuration Eight (8) Form C relay outputs; Eight (8) Form A outputs**
Frequency	**47 to 63 Hertz (for AC voltage only)**
Contact	**form Normally Open (N.O.) Form A contacts; Normally Closed (N.C.) Form C contacts**
Output	**groupings Form C - Individually isolated channels; Form A - Two (2) groups of Four (4) Form A outputs**
Load	**current (maximum) 16 Amps per module, 4 Amps per group**
Contact	**Type Silver alloy**
Maximum	**output current 2.0 amps from 5 to 265 VAC (m**

3. Product Information

The IC697MDL940 is a Series 90-70, relay output module. This module features a total of Sixteen (16) output contacts which are comprised of Eight (8) individually isolated Form C relay outputs and Two (2) groups of Four (4) Form A outputs. This module has a maximum load current of 2.0 amps from 5 to 265 VAC (maximum), 47-63 Hz; 2.0 amps from 5 to 30 VDC (maximum);

Technical specifications for IC697MDL940

Brand GE Fanuc

Series Series 90-70

Manufacturer GE Fanuc

Manufacturer GE Fanuc; Emerson Automation (Current)

Part number IC697MDL940

Product Description Relay output module

Series Series 90-70

Rated voltage 120/240 Volts AC or 5/24/125 Volts DC

No. of channels Eight (8) Form C (individually isolated); Eight (8) Form A

Product Description Relay Output module

Number of outputs 16

No. of groups Two (2) Groups of Form A

No of Channels Sixteen (16) Relay outputs

Required current 750 milliAmps

No. of channels per group Four (4) per group

Output configuration Eight (8) Form C relay outputs; Eight (8) Form A outputs

Frequency 47 to 63 Hertz (for AC voltage only)

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

Output groupings Form C - Individually isolated channels; Form A - Two (2) groups of Four (4) Form A outputs

Load current (maximum) 16 Amps per module, 4 Amps per group

Contact Type Silver alloy

Maximum output current 2.0 amps from 5 to 265 VAC (maximum), 47-63 Hz 2.0 amps from 5 to 30 VDC (maximum) 0.2 amps from 31 to 125 VDC (maximum) 0.2 amps from 31 to 150 VDC (maximum, Form A only)

Output leakage (maximum) 1 milliAmp at 120 Volts AC

Switching Frequency 20 cycles/minute (inductive load)

Minimum load 10 mA

Isolation voltage 1500 Volts

Output voltage 120/240 VAC or 5/24/125 VDC

Operating voltages 120/240 VAC or 5/24/125 VDC

Response time-on 10 milliseconds (maximum)

Maximum load load current 2.0 amps from 5 to 265 VAC (maximum), 47-63 Hz; 2.0 amps from 5 to 30 VDC (maximum); 0.2 amps from 31 to 125 VDC (maximum); 0.2 amps from 31 to 150 VDC (maximum, Form A only)

Maximum Power 480 VA (AC loads) or 60 watts (DC loads)

Response time-off 10 milliseconds (maximum)

Current draw 750 mA

Module width Single slot

Switching frequency 20 Cycles per minute

Response time 10 ms

Product lifecycle Obsolete

Product Lifecycle Status Discontinued / Obsolete

The IC697MDL940 is a Series 90-70 Programmable Logic Controller (PLC) module, specifically a Relay output module with a total of Sixteen (16) relay output channels. Specifically, it has Eight (8) Form C Contact outputs and Eight (8) Form A or Normally Open (N.O.) in Two (2) groups of Four (4) Form A contacts each channel. This module has a nominal voltage rating of 120/240 VAC or 5/24/125 VDC with a maximum power consumption of 480 VA for AC loads or 60 watts for DC loads. It has maximum load current ratings of 2.0 amps from 5 to 265 VAC at 47-63 Hz; 2.0 amps from 5 to 30 VDC; 0.2 amps from 31 to 125 VDC and 0.2 amps from 31 to 150 VDC applicable for Form A contact outputs only while the module's minimum load current is 10 mA. Each output channel has a maximum response time of 10 ms for both On and Off signal transition and switching frequency of 20 Cycles per minute when used with an inductive load. The output relays of this module are fixed coil, moving armature type while the output contacts are made of silver alloy with a maximum contact resistance of 0.2 Ohm and expected contact life of 20,000,000 operations for mechanical operations and 1,000,000 electrical operations at resistive inductive load. Each output of the IC697MDL940 is installed with a 3 Ampere fuse used as built-in channel protection along a snubber circuit which consists of a 47 Ohm resistor and capacitor with 0.015 µfd capacitance value.

The IC697MDL940 output relay module is an output relay module designed and manufactured by GE Fanuc. The module is typically used with GE PLC devices from Series 90-70 and it is equipped with 3-Amp rated fuses for protection. The module has a typical contact life of 300,000 to 1,000,000 operations and it has a maximum load current of 0.1 to 2 Amps for a resistive load and 0.05 to 1 Amp for a inductive load. This particular GE Fanuc module is designed for both AC and DC operation and it includes operating voltage ratings of 120 to 240 Volts AC or 5, 24, or 125 Volts DC. The module has 16 outputs and it features an operating frequency of 47 to 63 Hertz (for AC voltage only). The configuration of the output points includes 8 points configured in Form C and same number of points configured in Form A. The output points in Form C are isolated and other points are placed in 2 groups. The isolation voltage rating of the GE Fanuc IC697MDL940 output relay module is 1500 Volts and its switching frequency is 20 cycles per minute for an inductive load. The module has a maximum

output current leakage of 1 milliAmp at 120 Volts AC and a maximum load current of 16 Amps per module or 4 Amps per group. The rated current of the IC697MDL940 module is 750 milliAmps. The module's response time is 10 milliseconds and it features a maximum power rating of 480 Volt-Amps for AC loads and 60 Watts for DC loads. The IC697MDL940 module has silver alloy contacts with a 0.2-Ohm maximum resistance rating. The module has a fixed coil relay with a moving armature.