GE RX3i PacSystem Series Service Manual

IC694MDL940

1. Description

The IC694MDL940 is a PACSystem RX3i Discrete output module formerly manufactured by GE Fanuc, now under Emerson Automation. This module features Sixteen (16) Normally Open (N.O.) contacts grouped into Four (4) with Four (4) outputs each group. Each contact output can be operated with 5-30 VDC with nominal voltages of 24 VDC; 5 - 250VAC at frequency of 47 to 63 Hz, with nominal input voltages of 120/240VAC. Each channel is designed for maximum loads of 2 Amps pilot duty, maximum per output and 4

2. Specifications

Specification	Value
Brand	**GE Fanuc**
Series	**PACSystem RX3i**
Manufacturer	**GE Fanuc**
Part	**Number IC694MDL940**
Product	**Description Relay output module**
Description	**Relay Output Module**
No.	**of channels Eight (8)**
Operating	**Voltage 5.0 to 30 Volts DC or 5.0 to 250 Volts AC**
No.	**of groups Four (4)**
Switching	**current 2.0 Amps**
No.	**of channels per group Four (4)**
I/O	**Capacity 16 Individually isolated Normally Open (N.O) Outputs**
Contact	**form Normally Open (N.O.) Form A contacts**
Point	**to Point Isolation Yes**
Output	**voltage, range 5 - 30 VDC; 5 - 250VAC (50/60 Hz);**
Max.	**Backplane Draw 135 Milliamps**
Rated	**voltage 24 VDC; 120/240 VAC**
Inrush	**Rating 5.0 Amps**
Maximum	**load 2 Amps pilot duty per output; 4 Amps maximum per common**
Max.	**Response Time 15 Milliseconds**
Minimum	**load 10 mA**
Location	**PacSystems PLC I/O Slots**
Maximum	**inrush 5:00 AM**
LED	**Indicators 32 Individually-Numbered LEDs**
Current	**draw 7 mA (all outputs on) from 5 volt bus on backplane; 135 mA (all outputs on) from relay 24V bus on backplane**
Number	**of Groups 4 Groups of 4 Outp**

3. Product Information

The IC694MDL940 is a PACSystem RX3i Discrete output module formerly manufactured by GE Fanuc, now under Emerson Automation. This module features Sixteen (16) Normally Open (N.O.) contacts grouped into Four (4) with Four (4) outputs each group. Each contact output can be operated with 5-30 VDC with nominal voltages of 24 VDC; 5 - 250VAC at frequency of 47 to 63 Hz, with nominal input voltages of 120/240VAC. Each channel is designed for maximum loads of 2 Amps pilot duty, maximum per output and 4 Amps maximum per common. This module has current draw of 7 mA with all outputs on from 5 volt bus on backplane and 135 mA with all outputs on from relay 24V bus on backplane.

Technical specifications for IC694MDL940

Brand GE Fanuc

Series PACSystem RX3i

Manufacturer GE Fanuc

Part Number IC694MDL940

Product Description Relay output module

Description Relay Output Module

No. of channels Eight (8)

Operating Voltage 5.0 to 30 Volts DC or 5.0 to 250 Volts AC

No. of groups Four (4)

Switching current 2.0 Amps

No. of channels per group Four (4)

I/O Capacity 16 Individually isolated Normally Open (N.O) Outputs

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

Point to Point Isolation Yes

Output voltage, range 5 - 30 VDC; 5 - 250VAC (50/60 Hz);

Max. Backplane Draw 135 Milliamps

Rated voltage 24 VDC; 120/240 VAC

Inrush Rating 5.0 Amps

Maximum load 2 Amps pilot duty per output; 4 Amps maximum per common

Max. Response Time 15 Milliseconds

Minimum load 10 mA

Location PacSystems PLC I/O Slots

Maximum inrush 5:00 AM

LED Indicators 32 Individually-Numbered LEDs

Current draw 7 mA (all outputs on) from 5 volt bus on backplane; 135 mA (all outputs on) from relay 24V bus on backplane

Number of Groups 4 Groups of 4 Outputs Each

Isolation, Field to Backplane (optical) and to Frame Ground 250 VAC continuous; 1500 VAC for 1 minute

Relay Contact Life 100,000 - 1,000,000 operations, depending on voltage and load type

Response time 15 ms

Product Lifecycle Status Active

The IC694MDL940 is a Sixteen (16) point Relay output module from the PACSystem RX3i series of Emerson Automation, formerly manufactured by GE Intelligent Platforms (GE IP). This module has a single-slot width, occupying single slot of the backplane and comes with Four (4) groups of outputs with each group having Four (4) relay outputs each. The IC694MDL940 relay contacts are Normally Open (N.O.) contacts or Form A contacts. Each output contact are rated for a maximum load of 2 Amperes pilot duty, maximum per output while each output group designed to deliver maximum output current of 4 Amperes. Additionally, the module's minimum load is 10 mA and maximum inrush current of 5 Amperes. Each relay output channels has response time of 15 ms, maximum for both signal transitions and the module's power consumption is 7 mA @ 5VDC bus voltage and 135 mA from relay 24V bus on backplane. These power consumption ratings are based with all output channels energized. The IC694MDL940 comes with Sixteen (16) status LED indicators, each representing the individual channels. An energized LED represent an energized output while a de-energized LED represent otherwise. This module does not come with an internally installed fuse for channel protection therefore, users may want to install external fuses to protect the module. The IC694MDL940 comes with 250 VAC continuous and 1500 VAC for 1 minute isolation rating, from field to backplane and frame to ground while the channel to channel isolation is 250 VAC continuous; 1500 VAC for 1 minute.

The GE Fanuc IC694MDL940 Relay Output Module is a 16-channel relay output module that is designed for the RX3i PACSystems PLC system. The IC694MDL940 Output Module provides 16 individually isolated normally-open output circuits for controlling output devices such as motor starters, solenoids, and indicators. Each IC694MDL940 Output Module output point has a maximum switching capacity of 2 Amps, and they are grouped into 4 non-isolated groups of 4 output channels each. Each of the IC694MDL940 Output Module's output group has a common output terminal (4 output terminals total per module), and the power for each internal relay output points is drawn from the 24 Volts DC backplane power. An external AC/DC power source must be ordered separately and installed to power the connected output field devices. The IC694MDL940 Output Module has a nominal operating rating of 24 Volts DC or 120/240 Volts AC and an operating range of 5 to 30 Volts DC or 5 to 250 Volts AC at 50/60 Hertz. The IC694MDL940 Output Module has 1500 Volts AC of maximum point to point isolation for 1 minute and 250 Volts AC of continuous isolation between the field and backplane and to the frame ground. The minimum possible load on each of the IC694MDL940 Output Module s output circuits is 10 milliamps and the maximum load on each output point is 2.0 Amps, while it is 4.0 Amps per group common. The IC694MDL940 Output Module draws up to 7.0 milliamps of backplane current at 5.0 Volts DC and 135 milliamps at 24 Volts DC relay bus voltage on the backplane. There are 32 LEDs on the front panel of the module that indicates the on or off status of each individual output channel. The IC694MDL940 Output Module is compatible only with the RX3i PacSystems CPUs and it can be installed in any I/O slot in the RX3i PacSystems PLC backplanes.