GE RX3i PacSystem Series Service Manual

IC694MDL916

1. Description

The IC694MDL916 is a relay output module that is part of the PACSystem RX3i platform, currently under Emerson Automation, formerly produced by GE Intelligent Platforms (GE IP). This module has Sixteen (16) individually isolated Form A or Normally Open (N.O.) outputs. Each relay output is rated 0-125VDC (5/24/125 VDC nominal) and 0-250VAC (120-240VAC nominal) voltages with maximum current capacity of 4 Amperes.

2. Specifications

Specification	Value
Brand	**GE Fanuc**
Series	**PACSystem RX3i**
Manufacturer	**GE Intelligent Platforms (Former); Emerson Automation (Current)**
Part	**Number IC694MDL916**
Part	**Number IC694MDL916**
Product	**Description Relay Output module**
No	**of Channels Sixteen (16), individually isolated**
Description	**16-Point Relay Output Modul**
No.	**of channels Sixteen (16), individually isolated**
Output	**contact form Form A (Normally Open, N.O.)**
Operating	**Voltage 0 to 125 Volts DC/ 5 to 250 Volts AC**
Contact	**form Normally Open (N.O.) Form A contacts**
Output	**voltage range 5-250VAC / 0-125 VDC**
Switching	**current 4.0 Amps**
Output	**voltage, range 5 - 125VDC; 5 - 250VAC (47 to 63 Hz);**
Nominal	**output voltage 120-240 VAC; 5 / 24 / 125 VDC**
I/O	**Capacity 16 Isolated Form A Relay Outputs**
Output	**voltage, nominal 5/24/125 VDC; 120-240 VAC**
Minimum	**Output current 10 mA per point**
Point	**to Point Isolation Yes**
Output	**current per channel 10mA per point minimum; 4A for 5-250VAC maximum (resistive or general purpose); 4A for 5-30VDC maximum (resistive); 200mA for 12**

3. Product Information

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Technical specifications for IC694MDL916

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Series PACSystem RX3i

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Part Number IC694MDL916

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Product Description Relay Output module

No of Channels Sixteen (16), individually isolated

Description 16-Point Relay Output Modul

No. of channels Sixteen (16), individually isolated

Output contact form Form A (Normally Open, N.O.)

Operating Voltage 0 to 125 Volts DC/ 5 to 250 Volts AC

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

Output voltage range 5-250VAC / 0-125 VDC

Switching current 4.0 Amps

Output voltage, range 5 - 125VDC; 5 - 250VAC (47 to 63 Hz);

Nominal output voltage 120-240 VAC; 5 / 24 / 125 VDC

I/O Capacity 16 Isolated Form A Relay Outputs

Output voltage, nominal 5/24/125 VDC; 120-240 VAC

Minimum Output current 10 mA per point

Point to Point Isolation Yes

Output current per channel 10mA per point minimum; 4A for 5-250VAC maximum (resistive or general purpose); 4A for 5-30VDC maximum (resistive); 200mA for 125VDC (maximum resistive); 2A pilot duty per output (5 to 30VDC, 5 to 250VAC); 2A lamp load per output (5 to 30VDC, 5 to 250VAC

Maximum output current 200mA for 125VDC (maximum resistive); 2A pilot duty per output (5 to 30VDC, 5 to 250VAC); 2A lamp load per output (5 to 30VDC, 5 to 250VAC); 4A for 5-30VDC maximum (resistive); 4A for 5-250VAC maximum (resistive or general purpose) loads

Max. Backplane Draw 300 mill-Amps

Current draw 300mA at 5VDC from backplane maximum (all outputs ON); 150mA at 24VDC from backplane relay power (all outputs ON)

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Switching frequency 20 cycles per minute maximum

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Max. Response Time 10 Milliseconds

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

Relay contact life 200,000 -1,000,000 operations

Terminal blocks Box-style (IC694TBB032); Extended Box-style (IC694TBB132); Spring-style (IC694TBS032); Extended Spring-style (IC694TBS132)

External supply voltage 5-250VAC / 0-125 VDC

Installation RX3i PLC I/O Slots

Relay Contact Life 200,000 - 1,000,000 operations, depending on voltage and load type

Product Lifecycle Status Active

Configuration Proficy Machine Edition version 5.5 or the Service Pack 2 or later

The IC694MDL916 is a Sixteen (16) channel Relay output module that belongs to the PACSystem RX3i product family. This module is a single-slot module that is formerly manufactured by GE Intelligent Platforms, now under Emerson Automation. It comes with individually isolated Form A or Normally Open (N.O.) contact outputs. The output contacts of this module are dry contacts, allowing any combination of AC and DC voltage to be conducted per channel. It supports conductions of 5-250VAC range with nominal values of 120-240 VAC along frequency range of 47-63 Hz. It is also compatible with 0-125 VDC voltage with nominal voltage levels of 5 / 24 / 125 VDC. Each output contact has minimum current capacity of 10 mA per point while the maximum ratings are 200mA for 125VDC (maximum resistive); 2A pilot duty per output (5 to 30VDC, 5 to 250VAC); 2A lamp load per output (5 to 30VDC, 5 to 250VAC); 4A for 5-30VDC maximum (resistive) and 4A for 5-250VAC maximum (resistive or general purpose) loads. The individual output channels are designed to a maximum of 20 cycles switching frequency per minute with relay contact life of 20000 operations at 5-250 VAC / 5-30 VDC when used with resistive (4 A), lamp or solenoid (2 A); 700000 operations when used with resistive (1 A), lamp or solenoid (0.5A) and 1,000,000 when used with resistive (0.1 A), lamp or solenoid (0.05 A); To further increase individual relay output contact protection, external snubber circuits may be applied. This module is functionally compatible with Proficy Machine Edition version 5.5, Service Pack 2 or later and PACSystems RX3i CPU Firmware version 3.81.

The GE Fanuc IC694MDL916 Relay Output Module is a 16-point relay output module for the RX3i PACSystems controller system. The IC694MDL916 Output Module has 16 Form A relay output points for controlling output loads, and each output point is completely isolated from the other. Each of the IC694MDL916 Output Module’s outputs has built-in noise immunity capability, and this module is suitable for a wide range of industrial output devices including, solenoids, motor starters, and indicators. The IC694MDL916 Output Module requires the use of either the spring-style IC694TBS032 terminal block, the box-style IC694TBB032 terminal block, or the extended spring-style/box-style IC694TBS132 of IC694TBB132 terminal blocks which offer additional shroud depth for accommodating shielded wires. The IC694MDL916 Output Module can generate and send reports such over-temperature and terminal block loss error messages, and it can be configured with the Proficy Machine Edition software version 5.5 or later or the Service Pack software version 2 or later. The GE Fanuc IC694MDL916 Output Module requires a 0 to 125 Volts DC/0 to 250 Volts AC rated external power supply for operation, and it has a backplane current rating of 300 milliamps 5 Volts

DC. The IC694MDL916 Output Module has an output voltage range of 0 to 125 Volts DC/5 to 250 Volts AC at 47 to 63 Hertz and a lowest output load rating of 10 milliamps per point. The IC694MDL916 Output Module has a maximum output voltage drop of 0.3 Volts DC and a typical response time of 10 milliseconds (on/off). The IC694MDL916 Output Module has 16 individually isolated output channels with a common power output terminals per point. The IC694MDL916 Output Module comes with a back-panel DIP switch for selecting the module’s output default mode, and it also has LEDs for each individual output channel.