GE RX3i PacSystem Series Service Manual

IC694MDL250

1. Description

The IC694MDL250 is a PACsystem RX3i 120 VAC discrete input module. This module is formerly produced by GE Intelligent Platforms, now acquired by Emerson Automation. It features Sixteen (16) individually isolated discrete input channels in a single group. Each channel accepts an input voltage range of 0-132 VAC with a nominal rated voltage of 120 VAC. This module has a current consumption of 60 mA at 5 VDC.

2. Specifications

Specification	Value
Brand	**GE Fanuc**
Series	**PACSystem RX3i**
Manufacturer	**GE Fanuc**
Manufacturer	**GE Intelligent Platforms (Former); Emerson Automation (Current)**
Part	**Number IC694MDL250**
Product	**Description Discrete input module**
Series	**PACSystem Rx3i**
Description	**Input module**
No	**of Channels Sixteen (16)**
Part	**Number IC694MDL250**
Points	**16**
Input	**signal range 0-132 VAC**
Product	**Description Discrete input module**
Voltage	**120 Volts AC**
Nominal	**Input voltage 120 VAC**
No	**of groups Individually isolated**
Input	**Frequency 47-63 Hz**
Isolation,	**Optical and channel 250 volts, continuous; 1500 VAC for 1 minute**
Mounting	**Panel/DIN Rail**
Input	**current 7 mA per channel**
Input	**voltage range 0-132 VAC (47 to 63 Hz)**
Communication	**RS 485**
Current	**draw 60 mA (all outputs active)**
Input	**current 14.5 mA**
Environment	**Class 1, Division 2**
On	**State Voltage 70 VAC to 132 VAC**
On	**response time, maximum 30 ms**
Off	**state voltage 0 VAC - 20 VAC**
Off	**response time, maximum 45ms**
On	**state current 6 mA**
Product	**lifecycle Active**
Off	**state current 2.5 mA**
Connectors	**IC**

3. Product Information

The IC694MDL250 is a PACsystem RX3i 120 VAC discrete input module. This module is formerly produced by GE Intelligent Platforms, now acquired by Emerson Automation. It features Sixteen (16) individually isolated discrete input channels in a single group. Each channel accepts an input voltage range of 0-132 VAC with a nominal rated voltage of 120 VAC. This module has a current consumption of 60 mA at 5 VDC.

Technical specifications for IC694MDL250

Brand GE Fanuc

Series PACSystem RX3i

Manufacturer GE Fanuc

Manufacturer GE Intelligent Platforms (Former); Emerson Automation (Current)

Part Number IC694MDL250

Product Description Discrete input module

Series PACSystem Rx3i

Description Input module

No of Channels Sixteen (16)

Part Number IC694MDL250

Points 16

Input signal range 0-132 VAC

Product Description Discrete input module

Voltage 120 Volts AC

Nominal Input voltage 120 VAC

No of groups Individually isolated

Input Frequency 47-63 Hz

Isolation, Optical and channel 250 volts, continuous; 1500 VAC for 1 minute

Mounting Panel/DIN Rail

Input current 7 mA per channel

Input voltage range 0-132 VAC (47 to 63 Hz)

Communication RS 485

Current draw 60 mA (all outputs active)

Input current 14.5 mA

Environment Class 1, Division 2

On State Voltage 70 VAC to 132 VAC

On response time, maximum 30 ms

Off state voltage 0 VAC - 20 VAC

Off response time, maximum 45ms

On state current 6 mA

Product lifecycle Active

Off state current 2.5 mA

Connectors IC694TBBx32 or IC694TBSx32

Input Filter Times 20 msec – 2540 msec in 20 msec increments. Sent from CPU

Diagnostics Field side terminal block reported to RX3i CPU

Product Lifecycle Status Active

The IC694MDL250 is a digital input module that belongs to the PACSYstem RX3i product platform of Programmable Automation Controllers (PAC). This module mainly features Sixteen (16) individually isolated input channels that are rated 120 VAC and accept an input voltage range of 0-132 VAC. Within the PACSYstem RX3i family, this module is categorized as a high-voltage module. This module supports Hot-swap feature with improved backplane communication for enhanced input data exchange. The IC694MDL250 is a single slot module that can be installed to any available slot of the PACSystem RX3i and can be used as a local output module, residing along with the CPU rack or as part of a distributed I/O node, installed along with communication adapters. The IC694MDL250 is designed to accept an input current of 14.5 mA with an on the response time of 30 ms and Off response time of 45 ms. The module’s on-state signal range is 74-132 VAC with each channel provided with individual common for input isolation. To terminate input signals to the IC694MDL250, compatible connectors include IC694TBBx32 or IC694TBSx32. It has an internal power consumption of 60 mA at 5 VDC voltage from the backplane. Typically supported devices by the IC694MDL250 are push-button devices, auxiliary contacts, proximity sensors, thumbwheel switches, and similar binary operating devices. With individual channel isolation, this module may continue to operate even with a failed input channel. This module carries certification from UL 508, equivalent to CSA C22.2 No 142M1987 standard and approved for installation in Class I, Div. 2, Groups A, B, C, D application areas.

The IC694MDL250 is a 16-point input module that has been designed and manufactured by GE Fanuc. The module is backed with a high-speed serial bus that is capable of high-speed data transfers. The input module runs with an input voltage rating of 120 Volts AC and it requires CPU firmware version of 3.5 or later for normal operation. All of the 16 points are located on the front panel of the module and they are each equipped with an LED that illuminates when a connection is made to that specific point. The IC694MDL250 16-point input module is compatible with the RX3i PACSystems PLC system and a serial bus with both a normal base and an expansion base. This 16-point input module has a frequency rating of 50 to 60 Hertz. The IC694MDL250 input module can be easily mounted by using a DIN Rail or a panel mounting base. It has been certified to operate safely in a Class 1, Division 2 environment. Since it has an open type of architecture, the module should be used in a clean environment with no EMC noise. The RX3i PLC system is an efficient control system that offers high performance and backs the PAC engine. This system is equipped with PROFINET, which offers real-time distributed I/O. The IC694MDL250 input module features hot swap capability and it supports different application demands. The module is also equipped with a terminal block LED that illuminates green or red. To protect the module from transient electrical noise, an RC snubber is included. The module can be connected to a programming terminal or a personal computer by using the RS-485 port on the input module.