GE RX3i PacSystem Series Service Manual

IC694MDL660

1. Description

The IC694MDL660 is a PACsystem RX3i 24 VDC Positive / Negative logic input module. This module is formerly produced by GE Intelligent Platforms, now acquired by Emerson Automation. It features Thirty (32) point discrete input channels in Four (4) groups of Eight (8) channels. Each channel accepts an input voltage range of 0-30 VDC and an input current of 7.0 mA per point at rated voltage.

2. Specifications

Specification	Value
Brand	GE Fanuc
Series	PACSystem RX3i
Manufacturer	GE Fanuc
Manufacturer	GE Intelligent Platforms (Former); Emerson Automation (Current)
Part	Number IC694MDL655
Product	Description Discrete input module
Series	PACSystem Rx3i
Type	Input module
No	of Channels Thirty-Two (32)
Part	Number IC694MDL660
Inputs	32
No.	of groups Eight (8) channels per group
No.	of output groups Four (4)
Rated	Voltage 24V DC
Wiring	configuration Positive / Negative Logic
Channels	per group Eight (8)
Input	Voltage Range 0-30 VDC
Input	signal range 0-30 VDC
Isolation:	Field to Backplane (optical) -250 VAC continuous; 1500 VAC for one minute; Group to Group - 250VAC continuous; 1500 VAC for one minute
Isolation	250V AC and 1500V AC per minute
Nominal	Input voltage 24 VDC
Nominal	input voltage 24 VDC
Input	Filter Times 0.5ms, 1.0ms, 2.0ms, 5ms, 10ms, 50ms and 100ms
Current	draw 195 mA @ 5VDC; 224 mA @ 24 VDC
Input	current 7.0 mA at rated voltage
Power	Consumption 300 mA
On	State Voltage 11.5 - 30 VDC
Maximum	inrush c

3. Product Information

The IC694MDL660 is a PACsystem RX3i 24 VDC Positive / Negative logic input module. This module is formerly produced by GE Intelligent Platforms, now acquired by Emerson Automation. It features Thirty (32) point discrete input channels in Four (4) groups of Eight (8) channels. Each channel accepts an input voltage range of 0-30 VDC and an input current of 7.0 mA per point at rated voltage.

Technical specifications for IC694MDL660

Brand GE Fanuc

Series PACSystem RX3i

Manufacturer GE Fanuc

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

Part Number IC694MDL655

Product Description Discrete input module

Series PACSystem Rx3i

Type Input module

No of Channels Thirty-Two (32)

Part Number IC694MDL660

Inputs 32

No. of groups Eight (8) channels per group

No. of output groups Four (4)

Rated Voltage 24V DC

Wiring configuration Positive / Negative Logic

Channels per group Eight (8)

Input Voltage Range 0-30 VDC

Input signal range 0-30 VDC

Isolation: Field to Backplane (optical) -250 VAC continuous; 1500 VAC for one minute; Group to Group - 250VAC continuous; 1500 VAC for one minute

Isolation 250V AC and 1500V AC per minute

Nominal Input voltage 24 VDC

Nominal input voltage 24 VDC

Input Filter Times 0.5ms, 1.0ms, 2.0ms, 5ms, 10ms, 50ms and 100ms

Current draw 195 mA @ 5VDC; 224 mA @ 24 VDC

Input current 7.0 mA at rated voltage

Power Consumption 300 mA

On State Voltage 11.5 - 30 VDC

Maximum inrush current 4.78 A For 10 ms

Diagnostic Tools Yes. Terminal block that reports to CPU

Off state voltage 0 - +5 VDC

Current draw 300 mA

Input Current 7 mA per channel

On state current 3.2 mA

Input Filter Times 0.5ms, 1.0ms, 2.0ms, 5ms, 10ms, 50ms and 100ms, selectable per module

Compatibility RX3i CPU 2.90 or greater

Off state current 1.1 mA

On response time 0.5ms, 1.0ms, 2.0ms, 5.0ms, 10.0ms, 50.0ms & 100.0ms (as per filter setting)

On response time, typical Depending on the selected filter time

Off response time 0.5ms, 1.0ms, 2.0ms, 5.0ms, 10.0ms, 50.0ms & 100.0ms (as per filter setting)

On response time, maximum Depending on the selected filter time

Product Lifecycle Status Active

The IC694MDL660 is a component module of the PACSystem RX3i Programmable Automation Controller (PAC) family This module is originally produced by GE Intelligent Platform, now currently under Emerson Automation. This module is a high-density, Thirty-Two (32) point input channel with group isolation specifically, Four (4) input groups of Eight (8) channels each. The IC694MDL660 is designed to accept input signal voltage of 0-30 VDC with nominal input of 24 VDC along with an input current of 7.0 mA per point at rated voltage. Each channel of this module has an On-state voltage range of 11.5-30 VDC while the Off-state voltage is 0-5 VDC. The maximum On-state current is 3.2 mA while the maximum Off-state current is 1.1 mA. Configurable filter times may also be selected in order to fine-tune each input channel. The selectable input filters such as 0.5ms, 1.0ms, 2.0ms, 5ms, 10ms, 50ms, and 100ms enable the module to ignore false negative and false positive detection which are normally caused by environmental and mechanical factors such as dust and debounce. The selected filter settings become the On and Off response time of the input points. This module requires the use of high-density terminal blocks particularly Box-style with catalog number IC694TBB032 or Spring-style with catalog number IC694TBS032 front Terminal Block. Each input channel has dedicated input LED indicators that depict the logic state of the device. Logic 1 is depicted when the LED is illuminated indicating that the input channel is actively receiving input current otherwise, the LED is inactive.

The IC694MDL660 input module is a logic input module that has been manufactured by GE Fanuc Automation and included in the RX3i PACSystem series. It is made to be used with the RX3i racks. This module comes with 32 inputs that can operate under positive or negative logic. These inputs are divided into different groups and each of them can operate at a maximum voltage of 30 Volts. The 4 groups of inputs each have their common connection. The isolation voltage rating between these groups goes up to 250 Volts AC continuous and up to 1500 Volts AC for 1 minute. The GE Fanuc Automation IC694MDL660 logic input module comes with a voltage of 24 Volts DC and each of the inputs operates with an input voltage range that goes from 0 to 30 Volts DC. The GE Fanuc Automation IC694MDL660 logic input module comes with selectable input filter times that go from 0.5 milliseconds to

100 milliseconds. The on and off response times will be set after the users have established a filter time. The module has a power consumption of 300 milliamps, including all the inputs. The GE Fanuc Automation IC694MDL660 logic input module includes a diagnostics tool that consists of a terminal block that reports directly to the RX3i CPU. The module has a current of 7.0 milliamps per input at the rated voltage. One of the requirements for the correct application of this module is that it needs to be attached to an RX3i CPU that is release 2.90 or later. It must not be used with a Series 30-90 CPU since it is not compatible. The resolution of the module is 48 input bits and 16 output bits.