

# IC694MDL645

## RX3i 16-Point 24 VDC Digital Input Module

Emerson IC694MDL645 is a 16-point 24 VDC positive/negative-logic input module for RX3i systems. It provides a fixed 7 ms input response for standard discrete field signals.

### PRODUCT SNAPSHOT

**BRAND**  
Emerson

**FAMILY**  
PACSystems RX3i I/O

**PART**  
IC694MDL645

**DOCUMENT STATUS**  
Controlled engineering copy

### APTER POWER

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[www.apterpower.com](http://www.apterpower.com)



# PRODUCT OVERVIEW

IC694MDL645 provides standard 24 VDC positive/negative-logic signal acquisition for a matched PACSystems RX3i I/O installation.

- Exact catalog identity IC694MDL645
- RX3i 16-Point 24 VDC Digital Input Module
- Documented role: standard 24 VDC positive/negative-logic signal acquisition
- Controlled installation, diagnostics and functional verification

| RELATED APTER POWER PAGES |                                               |                                 |
|---------------------------|-----------------------------------------------|---------------------------------|
| 1                         | General Electric A06B-6096-H104               | 2                               |
| 3                         | General Electric A06B-6087-H155               | General Electric HE693ADC415    |
| 4                         | General Electric IS215VPROH1BD                | 5                               |
| 6                         | General Electric IS200VCMIH2CAA-IS215VCMIH2CA | General Electric IC200UDR005-DJ |
| 7                         | General Electric A06B-6117-H209               | 8                               |
| 9                         | General Electric PCIE-5565PIORC-100A00        | General Electric A06B-6096-H106 |

## SYSTEM COMPONENTS

| DOCUMENTED COMPONENT | ROLE IN SYSTEM          |
|----------------------|-------------------------|
| Proximity probe      | Matched extension cable |
| Proximitor Sensor    | AISI 4140 target        |

### ENGINEERING CONTEXT

The component remains matched to the documented RX3i slot or carrier, terminal assembly, field power and engineering configuration. Commissioning preserves the installed architecture and verifies controlled response.

# TECHNICAL DATA

| PARAMETER           | VALUE                      |
|---------------------|----------------------------|
| Input points        | 16                         |
| Input logic         | Positive or negative logic |
| Nominal voltage     | 24 VDC                     |
| Input voltage range | 20 to 30 VDC               |
| On-state threshold  | Greater than 11.5 VDC      |
| On response         | 7 ms                       |

| PARAMETER                | VALUE                     |
|--------------------------|---------------------------|
| Off response             | 7 ms                      |
| Backplane consumption    | 80 mA at 5 VDC            |
| Field supply consumption | 125 mA at 24 VDC          |
| Approvals                | UL and Class I Division 2 |
| CEP compatibility        | Supported                 |
|                          |                           |

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5 General Electric IS200VCMIH2CAA-IS215VCMIH2CA

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## TECHNICAL NOTE

Install IC694MDL645 only in the documented PACSystems RX3i I/O position. Preserve the as-found terminal, point and configuration records; then verify diagnostics and standard 24 VDC positive/negative-logic signal acquisition under controlled conditions.

# APPLICATIONS & PRECAUTIONS

## COMMON APPLICATIONS

### PACSystems RX3i planned maintenance

Restores standard 24 VDC positive/negative-logic signal acquisition in the documented control

### RX3i 16-Point 24 VDC Digital Input Module replacement

Uses exact IC694MDL645 identity instead of an adjacent I/O or CPU execution.

### Control-system refurbishment

Preserves the installed slot, terminal block, point map, power and engineering configuration.

### Controlled recommissioning

Confirms diagnostics and the affected signal or control function before automatic operation.

## PRODUCT PRECAUTIONS

1

Confirm the complete IC694MDL645 marking, module designation and documented RX3i installation position.

2

Place the controller, machine and connected process in the approved maintenance state.

3

Isolate controller and field power, prove the safe state and apply ESD controls before handling.

4

Record the slot, terminal block, every point assignment, common, shield and connected circuit before removal.

5

Verify the official electrical and configuration values documented for IC694MDL645; do not infer adjacent

6

Restore the approved backplane or carrier, terminal block, field power and engineering configuration.

7

Energize in the manufacturer sequence and review CPU, bus, module and channel diagnostics.

8

Complete a controlled signal, output or controller-response test before service release.

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1

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# ENGINEER FAQ

## Q1 How is IC694MDL645 distinguished from adjacent RX3i catalog numbers?

Match the complete IC694MDL645 marking, the RX3i 16-Point 24 VDC Digital Input Module designation and its recorded slot or carrier position.

## Q2 What function is assigned to IC694MDL645 in the documented system?

The module provides standard 24 VDC positive/negative-logic signal acquisition in the matched PACSystems RX3i I/O installation.

## Q3 What is the official input points for IC694MDL645?

Emerson documents input points as 16; verify that value against the installed execution before work.

## Q4 Which input logic applies to IC694MDL645?

The official value is Positive or negative logic. Preserve the corresponding power, signal or controller configuration.

## Q5 How should the documented nominal voltage be checked on IC694MDL645?

Confirm nominal voltage is 24 VDC and compare the as-found wiring or configuration with the approved record.

## Q6 What evidence is needed for the input voltage range of IC694MDL645?

Record the installed condition and verify the official value 20 to 30 VDC during controlled commissioning.

## Q7 What must be preserved before replacing IC694MDL645?

Record the slot or carrier, terminal assembly, point assignments, wiring, commons, shields, firmware or configuration state and active diagnostics.

## Q8 How is IC694MDL645 accepted after installation?

Restore the documented hardware and point map, review module and controller diagnostics, and perform a controlled test of standard 24 VDC positive/negative-logic signal acquisition.

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**SOURCE** Emerson IC694MDL645 product record and RX3i CEP Manual | Emerson official product and PACSystems documentation, accessed 24 September 2026

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