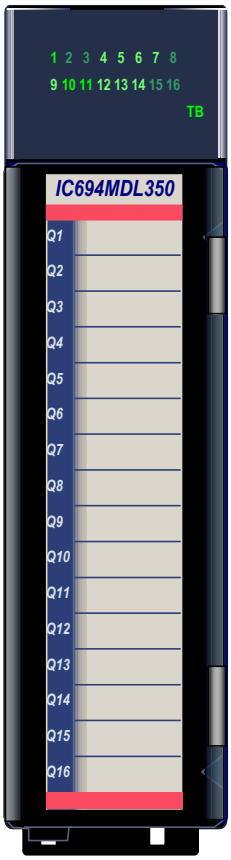
IMPORTANT PRODUCT INFORMATION

GFK-2303D

Sep 2019

PACSystems™ RX3i

120/240VAC, 16-POINT ISOLATED OUTPUT MODULE (IC694MDL350)



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Warning Notes as Used in this Publication

Warning

Warning notices are used in this publication to emphasize that hazardous voltages, currents, temperatures, or other conditions that could cause personal injury exist in this equipment or may be associated with its use.
In situations where inattention could cause either personal injury or damage to equipment, a Warning notice is used.

Notes: Notes merely call attention to information that is especially significant to understanding and operating the equipment.

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Introduction

The **120/240VAC 16-Point Isolated Output** module, IC694MDL350, provides 16 individually-isolated output points. A high level of noise immunity minimizes the need for external snubbers to protect the outputs against transient electrical noise on the power line. The outputs can control a wide range of inductive and incandescent loads. Power to operate the output loads must be provided with an external AC power supply.

A DIP switch on back of the module is used to select the outputs' default mode: Force Off or Hold Last State. The module must be removed from the backplane to set this switch.

This module can be used with a Box-style (IC694TBB032), Extended Box-style (IC694TBB132), Spring-style (IC694TBS032), or Extended Spring-style (IC694TBS132) Terminal Block. Extended terminal blocks provide the extra shroud depth typically needed for field wiring to AC devices. See the *PACSystems RX3i System Manual*, GFK-2314 revision B or later for more information on Terminal Blocks. Terminal Blocks are ordered separately.

Individually-numbered LEDs show the ON/OFF status of each output point. The TB LED indicates presence of the removable Terminal Block. The TB LED is green when the Terminal Block is present or red when the Terminal Block is not present. The red bands on the door card indicate the MDL350 is a high-voltage module.

The IC694MDL350 module can be installed in any I/O slot in an RX3i system. It must be used with an RX3i CPU release 3.50 or greater. It cannot be used with a Series 90-30 PLC CPU.

Specifications: IC694MDL350

Specification	Description
Rated Voltage	120/240 volts AC
Output Voltage Range	74 – 265VAC (47 to 63 Hz), 120/240VAC nominal
Outputs per Module	16 isolated
Isolation	
Field to Logic Side	250 VAC continuous; 1500 VAC for 1 minute
Group to Group	250 VAC continuous; 1500 VAC for 1 minute
Power Consumption	315 mA (with all outputs ON) from 5 volt bus on backplane
Diagnostics	Field side terminal block status reported to RX3i CPU
Output Current (Linear derating)	Per Point: 2A max. @ 30°C, 1A max. @ 60°C Per Module: 5A max. @ 30°C, 4A max. @ 60°C
Output Characteristics	
Inrush Current	20 Amps maximum for one cycle
Minimum Load Current	10 mA per point
Output Voltage Drop	1.5 volts maximum
Output Leakage Current	2 mA maximum
On Response Time	1/2 cycle maximum
Off Response Time	1/2 cycle maximum
Fuses	No internal fusing. Use of appropriate external fuses is recommended for short circuit protection.

Refer to Appendix A of the RX3i System Manual, GFK-2314 for product standards and general specifications.

Release Information

Release History

CAT Number	Firmware Version	Description
IC694MDL350-EA	1.20	Following Emerson's acquisition of this product, changes have been made to apply appropriate branding and registration of the product with required certification agencies. No changes to material, process, form, fit or functionality.
IC694MDL350-DA	1.20	Agency information on Label update. No change in functions, performance or compatibility.
IC694MDL350-CA	1.20	Label change only. No change in functions, performance or compatibility.
IC694MDL350-BA	1.20	Hardware update to correct a manufacturing issue.
IC694MDL350-AA	1.20	Initial Release

Updates

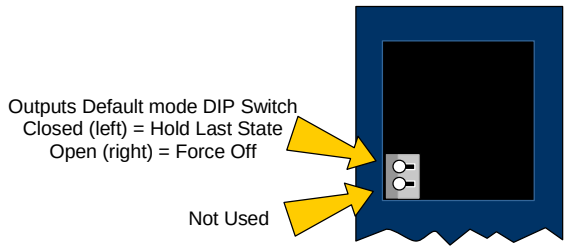
No field upgrade is required or available for this hardware revision.

Setting the Output Defaults

The DIP switch on back of the module determines how the outputs will operate if the CPU is set to Stop Mode or loses communications with the module.

The module must be removed from the backplane to set this switch. Note that there are two DIP switches on the module. Only the upper switch is used.

Figure 1: DIP Switch Position



With the Outputs Default Mode switch in the right (open) position, the outputs will turn off whenever communication with the CPU is lost.

When the switch is in the left position, the outputs will hold their last programmed value whenever communication with the CPU is lost. Backplane power and power to the outputs must be present to Hold Last State. Otherwise, the module will default outputs regardless of the DIP switch setting.

The Outputs Default Mode selection made with the DIP switch must match the selection made for this feature in the module's software configuration. If the two do not match, a warning message is displayed in the fault table.

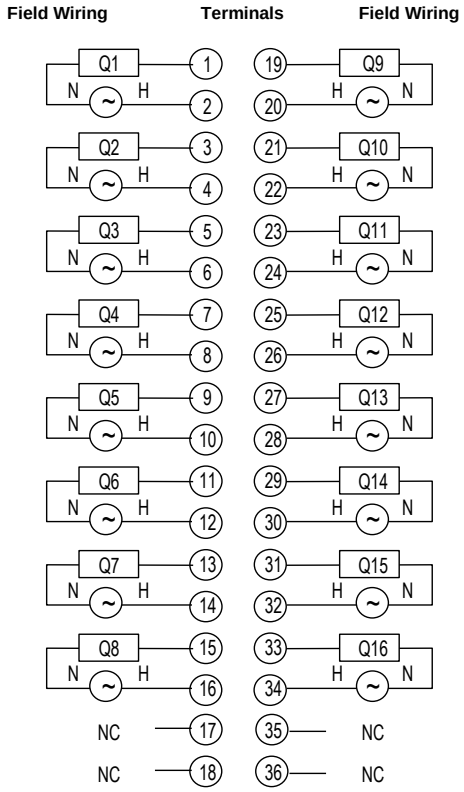
Field Wiring: MDL350

Field wiring connections to the module are made to the removable terminal assembly, as described in the RX3i System Manual, GFK-2314.

Connections	Terminals	Terminals	Connections
Output 1	1	19	Output 9
Output 1 Supply	2	20	Output 9 Supply
Output 2	3	21	Output 10
Output 2 Supply	4	22	Output 10 Supply
Output 3	5	23	Output 11
Output 3 Supply	6	24	Output 11 Supply
Output 4	7	25	Output 12

Connections	Terminals	Terminals	Connections
Output 4 Supply	8	26	Output 12 Supply
Output 5	9	27	Output 13
Output 5 Supply	10	28	Output 13 Supply
Output 6	11	29	Output 14
Output 6 Supply	12	30	Output 14 Supply
Output 7	13	31	Output 15
Output 7 Supply	14	32	Output 15 Supply
Output 8	15	33	Output 16
Output 8 Supply	16	34	Output 16 Supply
No connection	17	35	No connection
No connection	18	36	No connection

Figure 2: Field Wiring



Installation in Hazardous Locations

⚠ WARNING

- EQUIPMENT LABELED WITH REFERENCE TO CLASS I, GROUPS A, B, C & D, DIV. 2 HAZARDOUS LOCATIONS IS SUITABLE FOR USE IN CLASS I, DIVISION 2, GROUPS A, B, C, D OR NON-HAZARDOUS LOCATIONS ONLY
- EXPLOSION HAZARD - SUBSTITUTION OF COMPONENTS MAY IMPAIR SUITABILITY FOR CLASS I, DIVISION 2;
- EXPLOSION HAZARD - WHEN IN HAZARDOUS LOCATIONS, TURN OFF POWER BEFORE REPLACING OR WIRING MODULES; AND
- EXPLOSION HAZARD - DO NOT CONNECT OR DISCONNECT EQUIPMENT UNLESS POWER HAS BEEN SWITCHED OFF OR THE AREA IS KNOWN TO BE NONHAZARDOUS.

Technical Support & Contact Information

Home link: http://www.Emerson.com/Industrial-Automation-Controls

Knowledge Base: https://www.emerson.com/Industrial-Automation-Controls/support

Note: If the product is purchased through an Authorized Channel Partner, please contact the seller directly for any support.

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