MANUFACTURER DOCUMENT PACKAGE

Manufacturer's Manual

Reference package for procurement and maintenance review

GE

IC694MDL753

THIRTY-TWO-POINT POSITIVE-LOGIC DC OUTPUT MODULE

Used with the applicable GE PACSystems RX3i configuration.

REFERENCE PACKAGE

OFFICIAL DOCUMENT

Selected official manufacturer pages follow this cover.

Source: Emerson PACSystems RX3i System Manual, GFK-2314Z

7.13 Output Module, 12/24Vdc, 0.5A Positive Logic, 32-Point: IC694MDL753

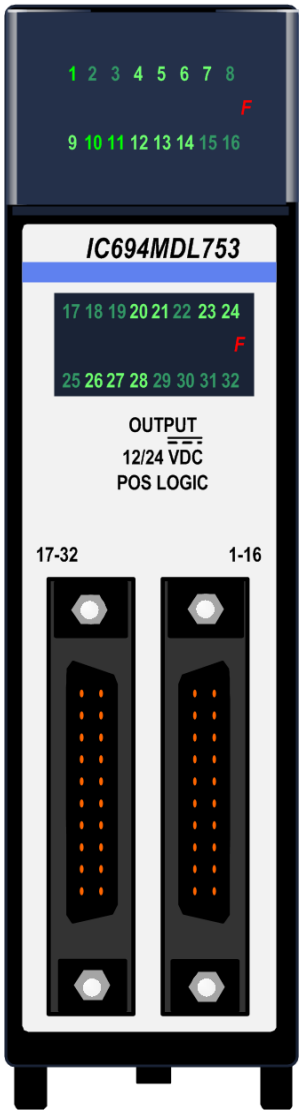


Figure 206: IC694MDL753

The *12/24Vdc 0.5A Positive Logic Output* module, IC694MDL753, provides thirty-two discrete outputs in four isolated groups of eight. Each group has its own common. The outputs are positive logic or sourcing type outputs; they switch the loads on the positive side of the power supply, and supply current to the load. The outputs can switch user loads over the range of +12 to +24Vdc (+20%, -15%) and can source a maximum current of 0.5 Amps per point. There are two pins on the I/O connectors for each group common. Each pin has a current handling capacity of 3 Amps. It is recommended that connections be made to both pins when connecting the common; however, it is required for high-current applications (between 3 and 4 Amps).

Each group can be used to drive different loads. For example, three groups might drive 24Vdc loads, while the fourth was reserved for driving 12Vdc loads.

Power to provide current to the loads must be provided by the user. Module also draws a minimum amount of power from the user supply to provide gate drive to the output devices.

Backplane isolation between the field-sideand logic side is provided by optocouplers on Module.

All 32 outputs are forced OFF when the CPU is stopped. No special fault or alarm diagnostics are reported. Individual numbered LEDs show the ON/OFF status of each output.

This module can be installed in any I/O slot in an RX3i system.

Module supports insertion into and removal from an RX3i Universal Backplane which is under power. Refer to *Hot Insertion and Removal*, Section 2.6.4.1.

7.13.1 Specifications: MDL753

Rated Voltage **Output Voltage Range**	12 through 24 Vdc, positive logic 10.2 to 28.8 Vdc
Outputs per Module	32 (four groups of eight outputs each)
Isolation:	
Field to Backplane (optical) and to Frame Ground	250 Vac continuous; 1500 Vac for 1 minute
Group to Group	50 Vac continuous; 500 Vac for 1 minute
Output Current	0.5 Amps per point with 4 Amps maximum per group and 3 Amps maximum per group common pin
Power Consumption	260 mA (maximum) from 5Vdc bus on backplane; (13mA + 3mA/point ON + 4.7mA/LED)
	16.5mA (maximum) per group from user supply at 24Vdc and all eight outputs in group ON
	9.6mA (maximum) per group from user supply at 12Vdc and all eight outputs in group ON
Output Characteristics	
Inrush Current	5.4 Amps for 10 ms
On–state Voltage Drop	0.3Vdc
Off-state Leakage Current	0.1mA maximum
On Response Time	0.5ms maximum
Off Response Time	0.5ms maximum

For product standards and general specifications, refer to Appendix A.

7.13.2 Field Wiring: MDL753

Connections to the output circuits are made from the load devices to two male 24–pin D-connectors (Fujitsu FCN–365P024–AU) on the front of Module. The connectors on this module can be wired directly to field devices using a cable having a mating female connector on one end and stripped and tinned wires on the other end. You can purchase a pair of pre-wired cables, catalog numbers IC693CBL327 and IC693CBL328 or build cables. Refer to Chapter 17 of this manual for more information.

Connections can also be made a pair of cables with connectors on each end. These cables connect Module with DIN-rail mounted terminal blocks as described in Chapter 17.

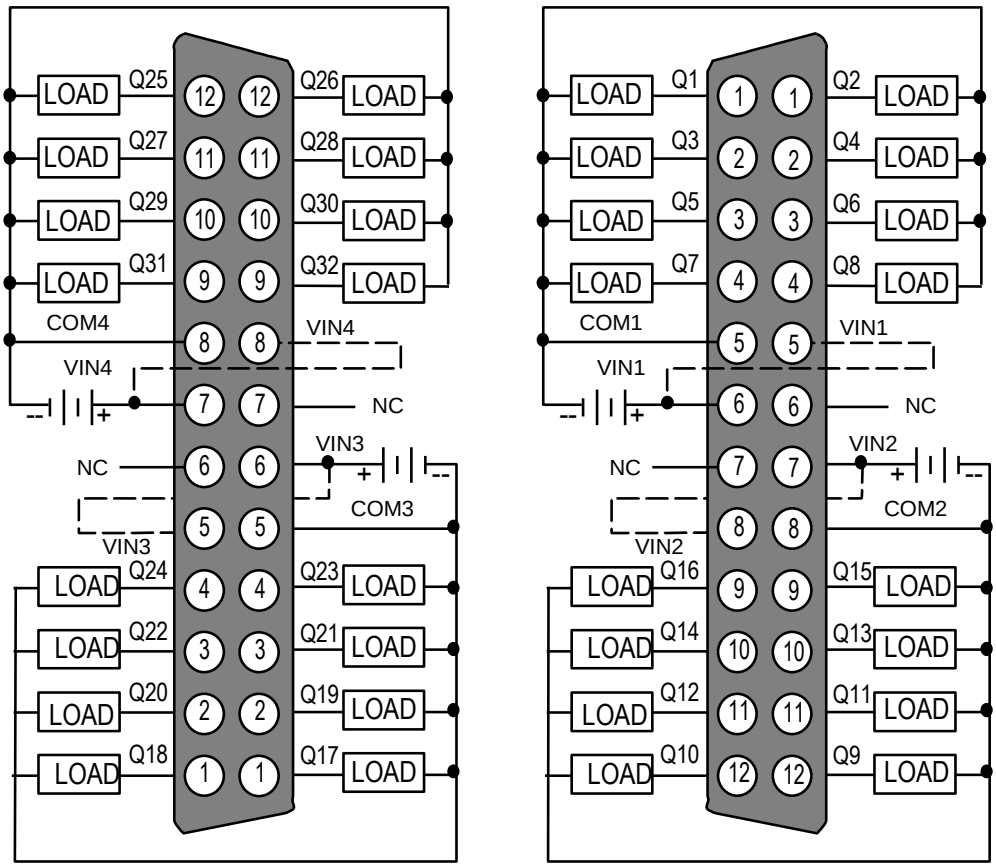


Figure 207: Field Wiring Pinouts MDL753

If the total current is greater than 3 Amps for a group, use both V_{IN} pins for the group by adding a second wire (shown by dashed lines above).

7.14 Output Module, 12/24Vdc, 0.75A Positive Logic, 32-Point with ESCP per Group: IC694MDL754

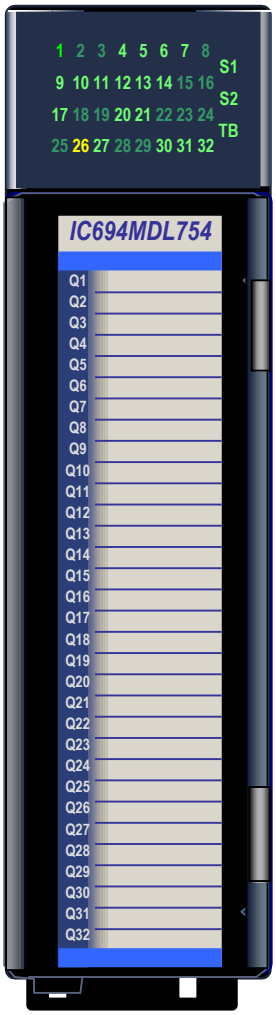


Figure 208: IC694MDL754

The ***12/24Vdc, 0.75A Positive Logic ESCP Output*** module, IC694MDL754, provides thirty-two discrete outputs in two isolated groups of 16. Each group has its own common. The outputs are positive logic or sourcing type outputs; they switch the loads on the positive side of the power supply, and supply current to the load. The outputs can switch user loads over the range of +12Vdc to +24Vdc (+20%, -15%) and can source a maximum current of 0.75 Amps per point.

Each point has electronic overcurrent/short circuit protection and generates an individual fault if either condition exists. In addition to output driver faults being sent back to the RX3i controller, Module provides a loss of field-side power fault, ESCP point failure within a group, field terminal block ON/OFF status and a DIP switch configuration mismatch fault.

Each group can be used to drive different loads. For example, one group might drive 24Vdc loads, and the other could drive 12Vdc loads. Power for the loads must be provided by the user.

A DIP switch at the rear of Module is used to select the outputs default mode: Force Off or Hold Last State. Module must be removed from the backplane to set this switch.

This module can be installed in any I/O slot in an RX3i system. Module supports insertion into and removal from an RX3i Universal Backplane which is under power. Refer to *Hot Insertion and Removal*, Section 2.6.4.1.

Module supports firmware upgrades using the WinLoader software utility (if the host CPU has a serial port) or using a Web-based tool (if the host CPU has no serial port). Instructions are included with the firmware upgrade kit.[23]

This module can be used with either a Box-style (IC694TBB032) or Spring-style (IC694TBS032) front Terminal Block (Refer to Chapter 17). The Terminal Block is ordered separately.

The blue bands on the label show that MDL754 is a low-voltage module.

Module cannot be used with a Series 90-30 PLC CPU.