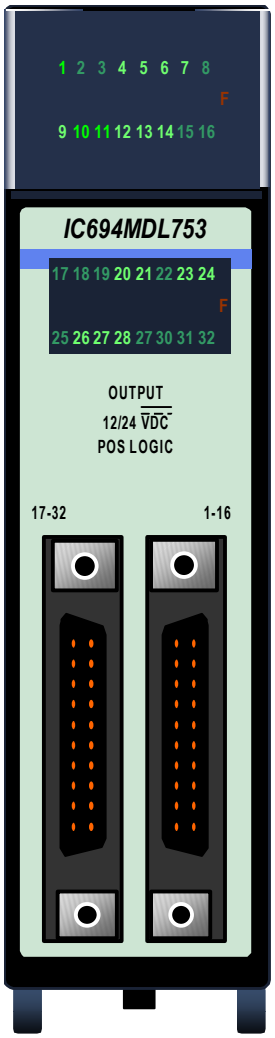
Output Module, 12/24VDC, 0.5A Positive Logic, 32 Pt: IC694MDL753



The ***12/24 volt DC, 0.5A Positive Logic Output*** module, IC694MDL753, provides 32 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 +24 VDC (+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 24 VDC loads, while the fourth was reserved for driving 12 VDC loads. Power to provide current to the loads must be provided by the user. The 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 side and logic side is provided by opto–couplers on the module.

All 32 outputs are forced OFF when the CPU is stopped. There are no special fault or alarm diagnostics 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.

Specifications: MDL753

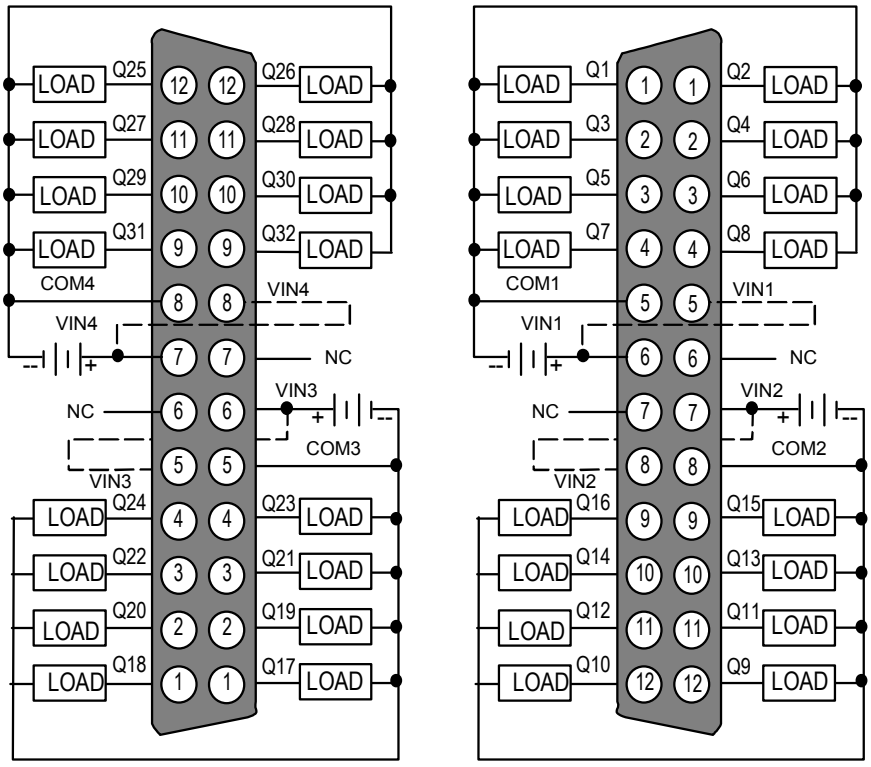
Rated Voltage **Output Voltage Range**	12 through 24 volts DC, positive logic 10.2 to 28.8 volts DC
Outputs per Module	32 (four groups of eight outputs each)
Isolation:	
Field to Backplane (optical) and to Frame Ground	250 VAC continuous; 1500 VAC for 1 minute
Group to Group	50 VAC continuous; 500 VAC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

Refer to Appendix A for product standards and general specifications.

Field Wiring: MDL753

Connections to the output circuits are made from the load devices to two male 24–pin connectors (Fujitsu FCN–365P024–AU) on the front of the module. The module's connectors 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 IC694CBL327 and IC694CBL328 or build cables. Refer to appendix B of this manual for more information.

Connections can also be made a pair of cables with connectors on each end. These cables connect the module with DIN-rail mounted terminal blocks as described in appendix B.



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).