GFK-0086G
August 1997

24/48 Volt DC, 2 Amp, 16 Point Output Module

Features

- 16 Points - Four isolated groups of 4 points each
- 2 amp capacity per point
- High inrush capacity (10x rated current)

Functions

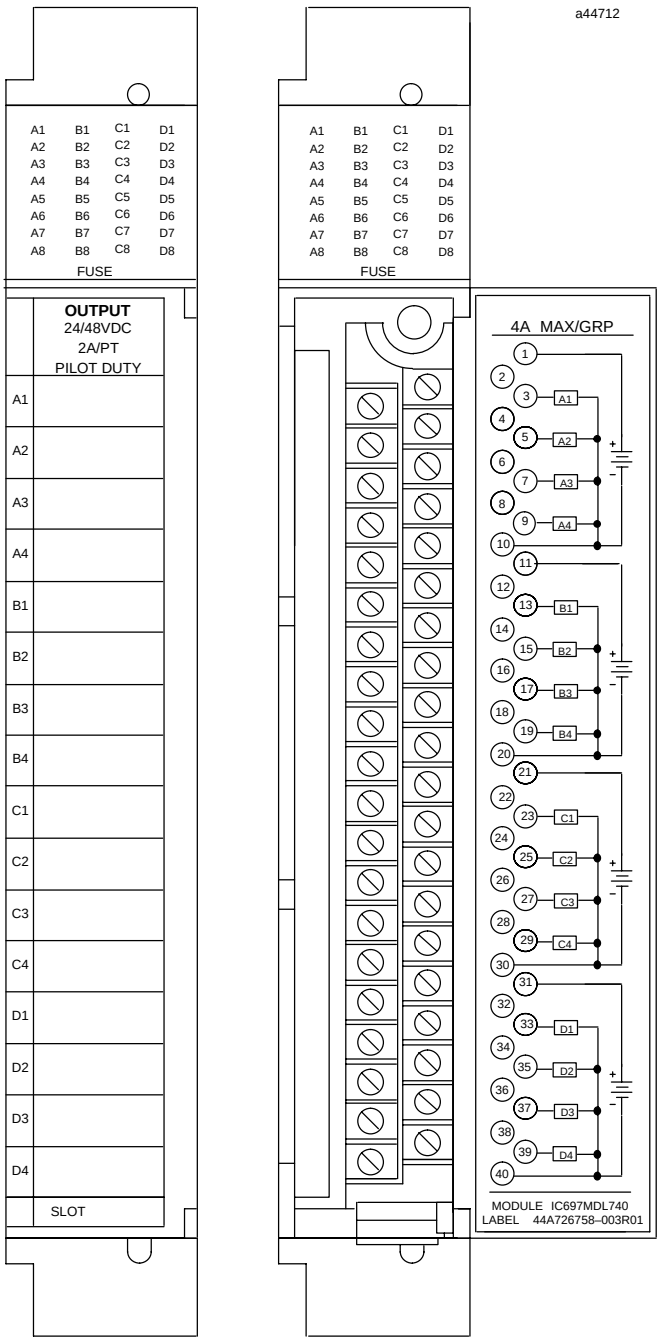
The **24/48 Volt DC 2 Amp Output Module** provides 16 output points in four isolated groups of 4 points each. Each group of four outputs is individually fused with a 10 amp fuse.

The module provides a high degree of inrush current which makes the outputs suitable for a wide range of loads which have such characteristics.

LED indicators which give the ON-OFF status of each point on the logic (PLC) side of the circuit as well as an LED to indicate the status of the fuse are located together at the top of the module.

The module is mechanically keyed to ensure correct replacement with a similar type in the field. I/O references are user configurable without the use of jumpers or DIP switches on the module.

Configuration is done using the configuration function of the MS-DOS® or Windows® programming software running on Windows® 95 or Windows NT® over Ethernet TCP/IP or through the SNP port. The Programming Software configuration function is installed on the programming device. The programming device can be an IBM® XT, AT, PS/2® or compatible Personal Computer.



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Operation of the 24/48 Volt DC 2 AMP Output Module

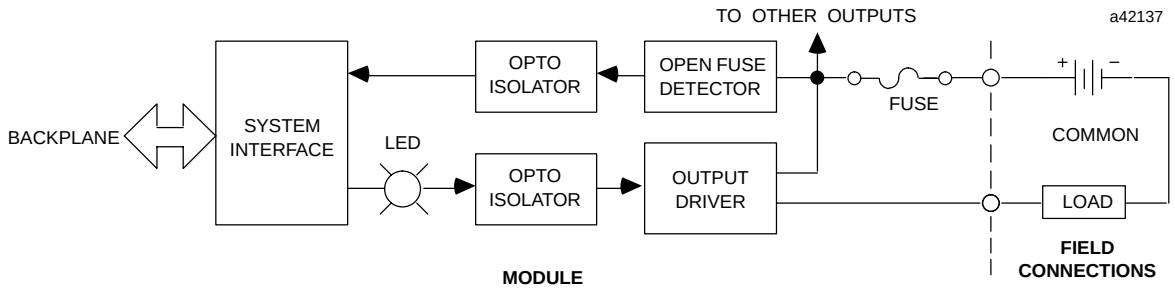

Figure 1. Block Diagram for IC697MDL740

Output Characteristics

The 24 / 48 Volt DC 2 Amp Output Module is compatible with a wide variety of load devices, such as:

- Solenoids
- Motor starters
- Indicators

The rating of 2 amps per point applies to the long-term current capacity of each point. Because of overall heat dissipation within the module, the maximum current for each group of four outputs is limited to 4 amperes.

Each output on this module is capable of transiently conducting a surge current which is much greater than its long-term current rating. The rate at which such surges can be repeated depends on the current rating of the device and the duty cycle (percent of time the device is ON). For typical incandescant devices operating at a 50% duty cycle, the following repetition rates apply.

Steady-state Current (mA)	Repetition Rate (Hz)
0.5	5
1	1
2	0.1

Fault Mode Selection

The module can be configured from the programmer so that output points assume one of two states in response to certain operating or default conditions.

- Maintain existing output state
- Turn outputs OFF

This is explained in more detail in the programming manual.

Fusing

Each group of 4 outputs is fused with a 10 amp fuse. Replace with either of the following types:

- 3AG - 10 amp, 250V, Fast Acting
- Metric 5 x 20 mm - 10 amp, 250V, Fast Acting

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Module Mechanical Keying

This module includes a mechanical key that prevents inadvertent substitution of one module type for another in a given slot. The key fits a uniquely shaped area on the board below the connector. The key is included with each module.

When the module is first installed, the key latches onto the backplane center rail. When the module is extracted, the key remains in the center rail, configuring the slot to accept only identical module types.

If it is necessary to change the module location in the rack after the key has been latched onto the center rail of the rack, the key can be removed by pushing it upward to unhook the latch while pulling it off the rail. It may then be reinserted onto the module and the module inserted into the rack in the desired location. Note: only the power supply can be placed in the leftmost rack position.

Field Wiring

The module is wired as shown. Since each group of eight outputs isisolated from the others, a wire from the power source to the power input terminals for each group is required (power input terminals for each group are not connected inside the module).

The detachable field wiring terminal board will accept wire sizes from AWG #22 (0.36 mm^2) through AWG #14 (2.1mm^2). Two wires may be terminated on a given lug if both wires are the same size. There is room for a bundle of forty #14 wires to be routed out through the terminal board cavity.

The wire bundle can be secured to the terminal board by passing a cable tie through a cleat located at the lower corner of the terminal board.