



This Datasheet for the

## **IC693MDL648**

**48VDC Input, 16 Pt Neg/Pos Logic, 1msec Filter**

**<http://www.qualitrol.com/shop/p-14659-ic693mdl648.aspx>**

Provides the wiring diagrams and installation guidelines for this GE Series 90-30 module.

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# PLC DATA SHEET

**Product: IC693MDL648 Discrete Input Module**

**48 Volt DC, 16 Point, Positive/Negative Logic**

## Product Description

This **48 volt DC Positive/Negative Logic Input** module for the IC693-Series Programmable Logic Controller provides 16 input points in one group with a common power input terminal. *The on and off response times for this module are 1 mSec maximum.* This input module is designed to be used in either positive logic or negative logic applications. Input characteristics are compatible with a wide range of user-supplied input devices, such as pushbuttons, limit switches, and electronic proximity switches. Current flow into an input point results in a logic 1 in the PLC input status table (%I). Power to operate input devices must come from an external power 48 VDC source supplied by the user.

LED indicators that provide the ON/OFF status of each point are located at the top of the module. This LED block has two horizontal rows with eight green LEDs in each row; the top row is labeled A1 through 8 (points 1 through 8) and the bottom row is labeled B1 through 8 (points 9 through 16). An insert fits between the inside and outside surface of the module's hinged cover. The back of the insert has circuit wiring information, and circuit identification information can be written on the front of the insert. The front left edge of the insert is color-coded blue to indicate a DC-type module. This module can be installed in any I/O slot of a 5 or 10-slot baseplate in an IC693-Series PLC system.

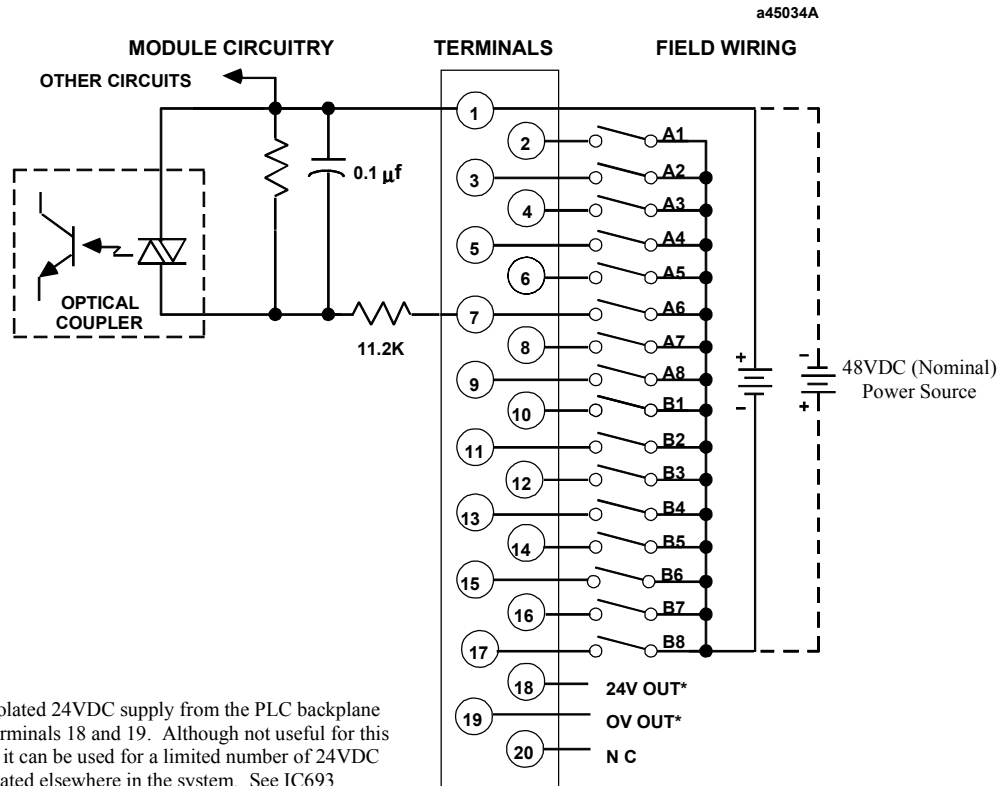
**Table 1. Specifications for IC693MDL648**

<b>Rated Voltage</b>	48 volts DC
<b>Input Voltage Range</b>	0 to 60 volts DC
<b>Inputs per Module</b>	16 (one group with a single common)
<b>Isolation</b>	1500 volts between field side and logic side
<b>Input Current</b>	4.2 mA (typical) at rated voltage
<b>Input Characteristics</b>	
<b>On-state Voltage</b>	34 to 60 volts DC
<b>Off-state Voltage</b>	0 to 10 volts DC
<b>On-state Current</b>	3 mA minimum
<b>Off-state Current</b>	1.1 mA maximum
<b>On response Time</b>	1 ms maximum
<b>Off response Time</b>	1 ms maximum
<b>Power Consumption: 5V</b>	80 mA (all inputs on) from 5 volt bus on PLC backplane
<b>Power Consumption: 48V</b>	74 mA from the user-supplied 48VDC power supply

Refer to data sheet GFK-0867 for product standards and general specifications.

### IC693MDL648 Input Module Field Wiring Information

The following figure provides wiring information for connecting user-supplied input devices and power source to the 48 volt DC positive/negative logic input module.



\*Note that the isolated 24VDC supply from the PLC backplane is available on terminals 18 and 19. Although not useful for this module's inputs, it can be used for a limited number of 24VDC input devices located elsewhere in the system. See IC693 Installation manual's "Power Supplies" chapter for details.

Figure 1. Field Wiring – 48 Volt DC Pos/Neg Logic Input Module – IC693MDL648

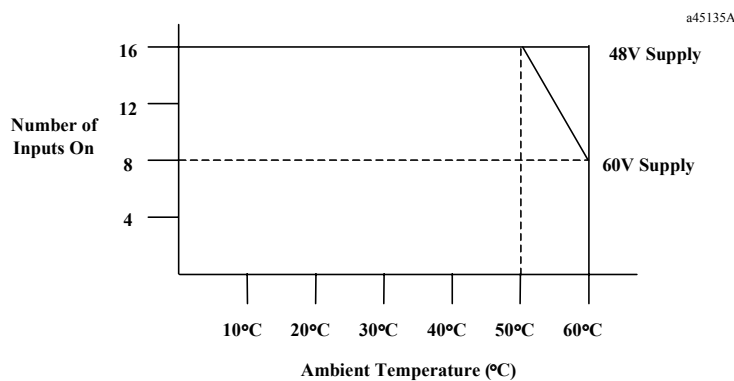


Figure 2. Input Points vs. Temperature for IC693MDL648

### Configuration Information

Check to see if the module catalog number, IC693MDL648, is found in your configuration software's Input Module list. If so, select it from the list; if it is not listed, configure it as a Generic 16-circuit (16-point) Discrete Input Module.