

Technical Bulletin, Digital I/O Modules: Installation Options



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NOTE: User Manual Reference - This Technical Bulletin complements the information contained in Volume 1 and is applicable to all firmware revisions.

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Scope

All OMNI 6000/3000 Flow Computers have digital I/O capabilities via proprietary digital I/O modules.

Abstract

OMNI Flow Computers have digital I/O module options with user-selectable jumpers for module address, sequence and interrupt request (IRQ). OMNI manufactures two (2) models of digital modules:

- Digital I/O Module Model # **68-6011**
- Digital I/O Module Model # **68-6211**

Each digital module has twelve (12) digital points. Each digital point can be individually configured as either an input or an output, via the front panel keypad or a communication port using OMNICOM[®] configuration PC software.

Installation Options and Jumper Settings

Only one (1) Digital I/O module can be installed in the OMNI 3000 and a maximum of two (2) can be installed in the OMNI 6000. This provides a total of twelve (12) Digital I/O points for the OMNI 3000 and a total of twenty-four (24) digital I/O points for the OMNI 6000.

Digital I/O Module Model # 68-6011

NOTE: Each digital I/O point has two (2) LEDs (green and dual red/green) which indicate its status. When the single green LED is glowing, the digital I/O point is active. The dual red/green LED indicates a blown fuse, red indicating a source current and green a sinking current.

Inputs and outputs are provided for control of prover functions, remote totalizing, sampler operation, tube control, injection pump control, and other miscellaneous functions. Each digital I/O module provides a total of twelve (12) digital I/O points. Each point can be configured independently as an input or output. Points are individually fused and include LEDs indicating that the point is active and if the fuse is blown. The digital I/O module normally occupies I/O Slots one (1) and two (2) on the OMNI 6000 backplane, and I/O Slot one (1) on OMNI 3000. User-selectable jumper settings are shown in Figure 1:

Fuses are 2AG 1/4AMP "Littlefuse" part #0225-250.

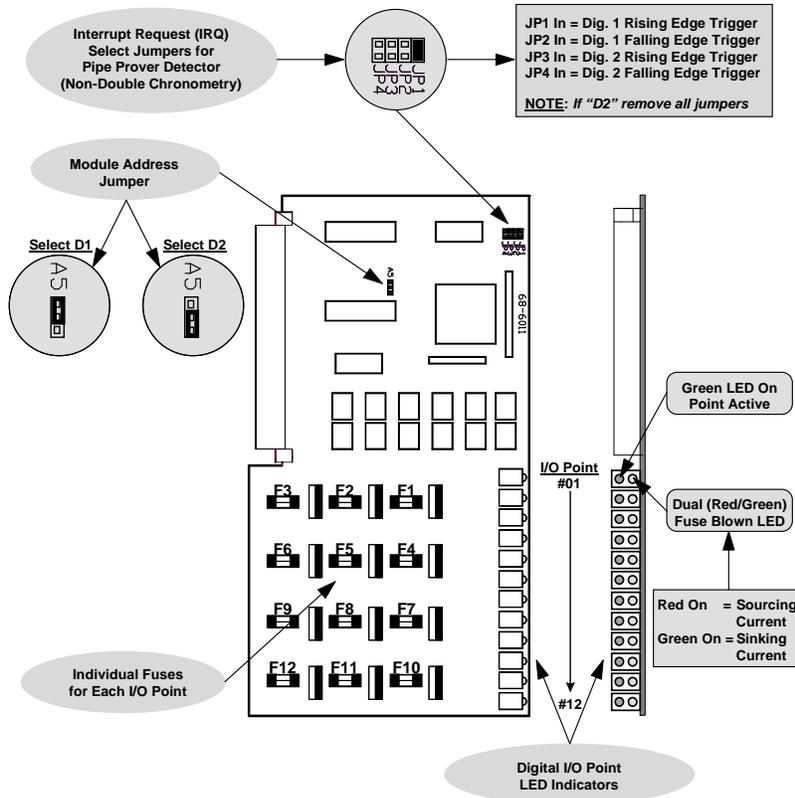


Figure 1. Digital I/O Module Model #68-6011 - Jumper Settings

NOTE: Users with two (2) digital I/O modules installed in a 6000 Flow Computer must remove jumper JP1 on the D2 module. Failure to remove this jumper will cause the detector switch operation to not function on uni or bidirectional proving.

Digital I/O Module Model # 68-6211

Digital Module # 68-6211 has the same features as the Model # 68-6011, plus the following:

- Surface-mounted circuitry
- Individual resettable fuses for each digital I/O point
- Redesigned user-selectable jumpers for IRQ polarity, channel assign, and module address selection using one (1) or two (2) digital I/O modules.

User-selectable jumper settings are shown in Figure 2. When using a second digital I/O (D2) module, no jumper is required on JP1 and JP2.

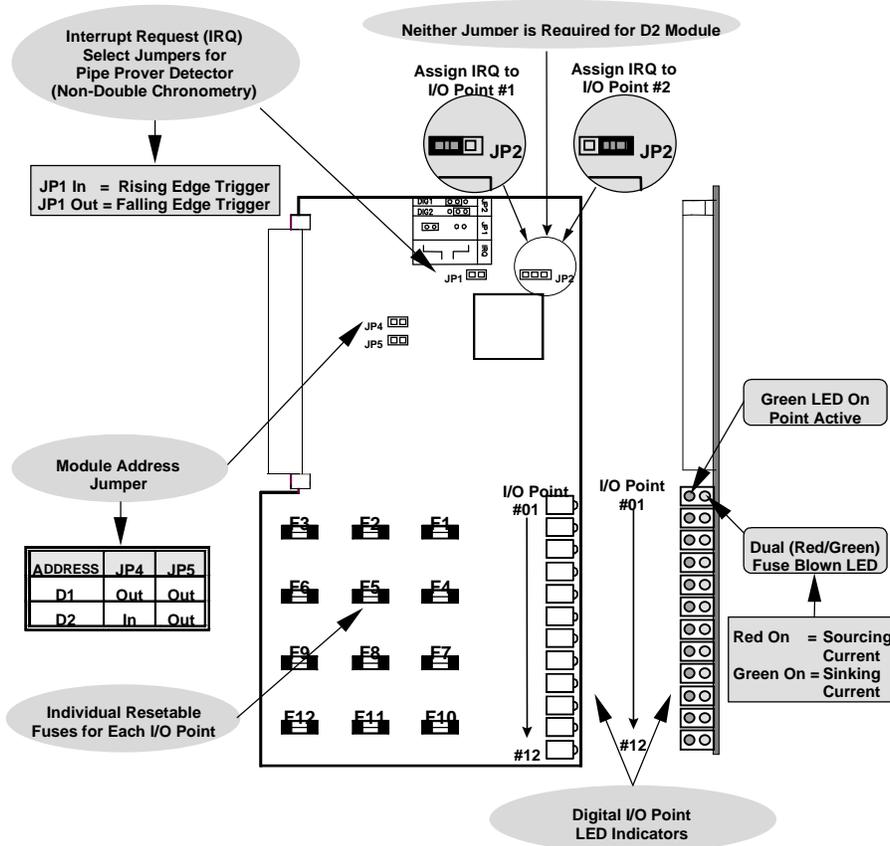


Figure 2. Digital I/O Module Model # 68-6211 - Jumper Settings

NOTE: Users with two (2) digital I/O modules installed in a 6000 Flow Computer must remove jumper JP1 and JP2 on the D2 module. Failure to remove these jumpers will cause the detector switch operation to not function on uni or bidirectional proving.

DOCUMENT REVISION HISTORY

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