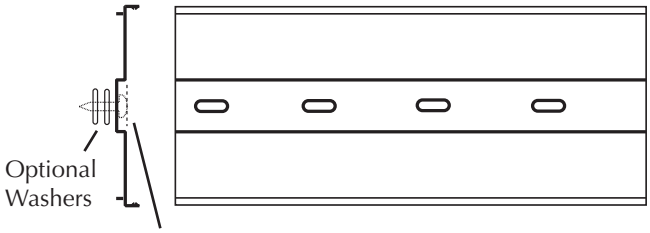
Installation Guide

Introduction

The HPO-0071 is an eight-circuit transient suppressor board used on the **inputs** of digital controllers, and the twelve-circuit HPO-0070 is used on the **outputs**. When properly installed and wired, these board can protect the digital controllers from high-voltage transients.

These boards are required on every controller involved in smoke control applications. (See Smoke Control Manuals 000-035-08 (BACnet) and/or 000-035-09 (KMDigital) for more information.) If such a controller has more than eight inputs, an additional HPO-0071 will be needed.



⚠ CAUTION

To avoid damaging or shorting the board's wiring, be sure the mounting screw heads do not exceed this maximum height.

Illustration 1—Snap Track Installation

Installation and Wiring

1. Mount the (included) Snap Track in a suitable enclosure. To avoid damaging or shorting the board's wiring, be sure the mounting screw heads do not exceed the maximum height indicated in Illustration 1. One or two washers underneath the track may help provide enough flex in the track to more easily install the board.
2. Slide the boards into the Snap Track.

NOTE: Orienting the unprotected terminals on the same side as the incoming or exiting wiring may simplify the wiring process.

2. Connect the incoming or exiting wires to the unprotected sides of the boards. See Illustrations 2 and 3.
3. Connect the controller wiring input and output pairs to the corresponding protected terminals of the boards. If the controller has more than eight inputs, start over with Terminal 1 of the second input board going to Input 9 of the controller.

NOTE: The SC terminals are used instead of GND only if the controller has HPO-6701 triac or HPO-6703/6705 relay output override boards installed.

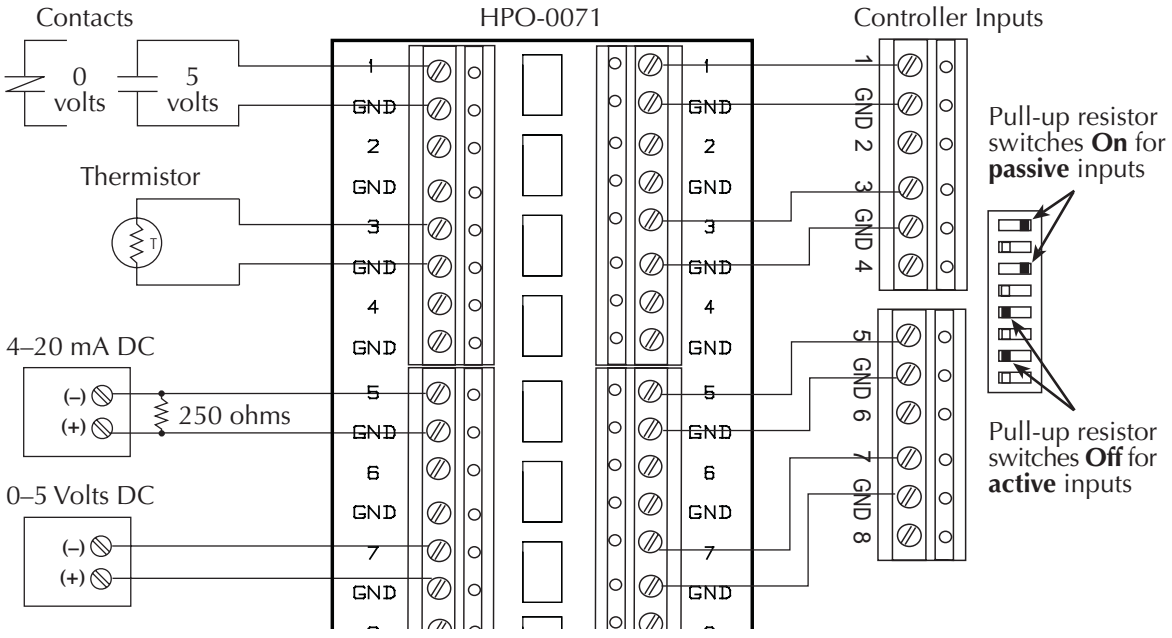


Illustration 2—Input Wiring with HPO-0071

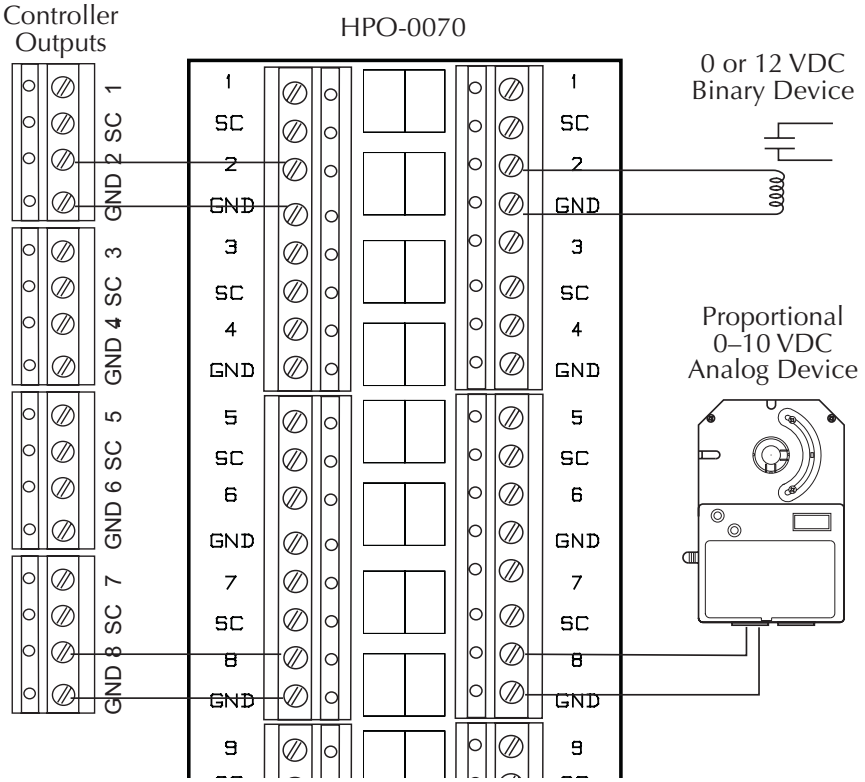


Illustration 3—Output Wiring

⚠ CAUTION

Connecting 24 volts to an analog ground will result in improper operation and may result in equipment damage. Use only the relevant Switched Common (SC) instead of Ground (GND) when the HPO-6701 triac and HPO-6703/6705 relay output override boards are installed in a controller. The switched common terminals are isolated from the circuit grounds used for the universal output analog circuitry in the controller.

Specifications

Mounting	Snap Track
Dimensions	2⅛" x ⅝" x (3¼" for HPO-0071 or 4 13/16" for HPO-0070) unmounted; 2⅜" x 1" x (3 7/16" or 5¼") mounted in Snap Track
Technology	Transorbs
Max. Peak Current	250 A, 1 time (@ 8/20 µs); 125 A, 2 times (@ 8/20 µs)
Voltage	18 Volts
Clamping Voltage	40 Volts @ 8/20 µs
Ambient Limits	
Operating	–40° to 185° F (–40° to 85° C)
Shipping	–40° to 185° F (–40° to 85° C)
Humidity	0 to 95% RH, non-condensing
Regulatory	UL 864 Smoke Control Equipment listed (UUKL) UL 916 Energy Management Equipment listed

Accessories

902-602-08	Replacement terminal block, eight-pin

Models

HPO-0070	Twelve-output transient suppressor board
HPO-0071	Eight-input transient suppressor board

Operation

Once installed, the suppressor boards require little user intervention. If the suppressor is damaged because of a high-voltage transient, causing the protected circuit to open, simply replace the affected board.

Maintenance

No routine maintenance is required. Each component is designed for dependable, long-term reliability, and performance. Careful installation will also ensure long-term reliability and performance.

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