

# Installation manual for the DS7461i Single Zone Input Module

## 1.0 Description

The DS7461i is a Single Zone Input Module designed to operate with compatible multiplex systems. It provides a supervised input zone for connection of conventional normally open or normally closed inputs. Each DS7461i occupies one multiplex zone address on the system. The DS7461i connects to the DS7430, DS7436 Multiplex Expansion Modules or the D8125MUX Multiplex Expansion Module. For additional DS7461i installation information, refer to the *D9412GV2/D7412GV2 Approved Applications Compliance Guide* (P/N: F01U003639).

## 2.0 Specifications

- **Voltage:** 12 VDC nominal
- **Current :** 0.5 mA maximum
- **Line Impedance:**

Maximum Impedance: 4.05Ω at +68°F (+20°C) nominal	
Maximum Distance	Size
250 ft	22 AWG
600 ft	18 AWG
76 m	0.65 mm
193 m	1.02 mm
Fire applications require 18 AWG.	

- **Operating Temperature Range:** +32°F to +122°F (0°C to +50°C)
- **Relative Humidity:** 0 to 93%
- **Signaling Line Circuit:** Class B
- **Initiating Circuit:** Class B

 **When used in a fire system, NFPA 72 prohibits this product from sharing a communications bus with non-fire devices.**

## 3.0 Programming

Refer to the control panel's installation guide for multiplex zone (point) programming information.

Refer to *Section 6.0* on page 3 for switch settings.

## 4.0 Installation

 **After any programming or hardware change, do a functional test of the system as required by local codes.**

These instructions assume that the control panel is installed and in proper working condition.

 **The control panel must be programmed and the DS7461i address switches must be set for the DS7461i to operate.**

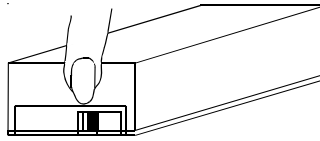
- Program the control panel as described in the control panel's reference guide.

 **Disconnect power to the control panel before routing wires to connect the DS7461i.**



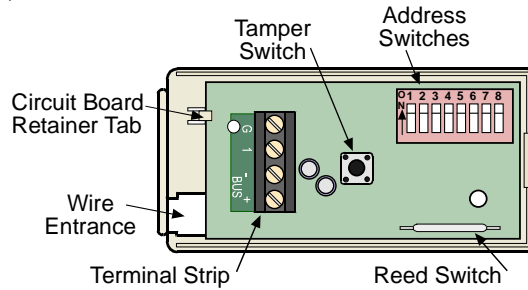
**BOSCH**

- Remove the cover of the DS7461i. Press in and up with your thumb and nail directly above the lip of the DS7461i (refer to *Figure 1*).



**Figure 1: Removing the Cover**

- Remove the DS7461i circuit board from the base. Press the circuit board retainer tab and pull the circuit board up and out of the base (refer to *Figure 2*).



**Figure 2: Removing the PCB**



**Handle this and all circuit boards carefully. Hold the board by its edges.**

- Route the wiring through the wire entrance of the DS7461i base.
- Mount the DS7461i base to the mounting surface using the supplied screws.
- Return the DS7461i circuit board to the base.

## 5.0 Wiring

DS7461i Terminals	Description
Bus +	Positive Multiplex Input
Bus -	Negative Multiplex Input
1	Input Zone Positive Input
G	Input Zone Ground

**Table 1: DS7461i Terminal Descriptions**

- Connect wiring to the DS7461i as shown in *Figure 3* and *Figure 4*.
- Input zones are designed to monitor Normally Open or Normally Closed dry contacts. They are supervised using 47K ohm end-of-line resistors.



**The protection zone can be used as a magnetic contact by mounting a magnet with the reed switch and removing the EOL resistor for the protection zone. The protection zone cannot be used as a magnetic contact and used to monitor other contacts at the same time.**

- If the reed switch is not being used, cutting it from the DS7461i circuit board prevents possible tampering to override Zone 1 operation.
- For fire installations, order Multiplex Fire Zone EOL P/N 28010 in the quantity needed.



**The input zones are power limited and supervised.**



**When used in fire applications, Normally Open contacts must be used on the input zones.**

## 5.1 DS7430 Multiplex Expansion Module Wiring

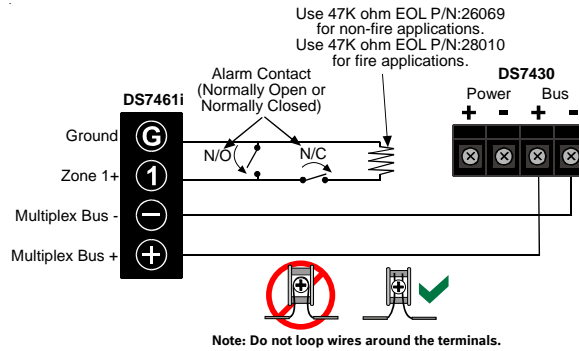


Figure 3: Wiring to a DS7430 Multiplex Expansion Module

## 5.2 DS7436 Multiplex Expansion Module Wiring

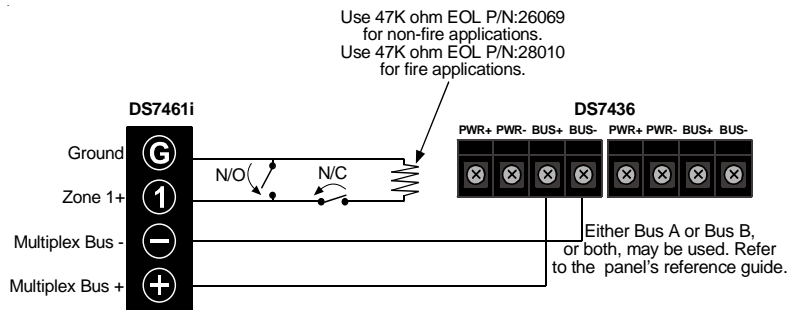


Figure 4: Wiring to a DS7436 Multiplex Expansion Module

## 5.2 D8125MUX Multiplex Expansion Module Wiring

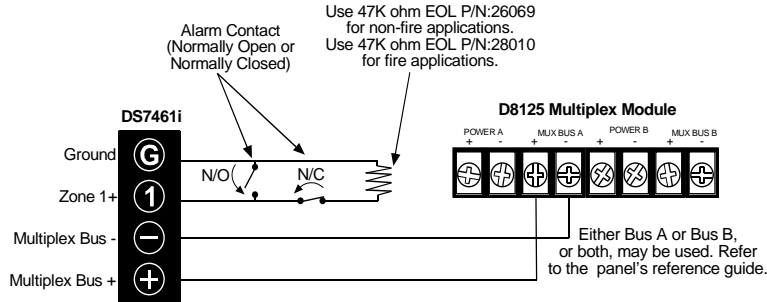


Figure 5: Wiring to a D8125MUX Multiplex Expansion Module

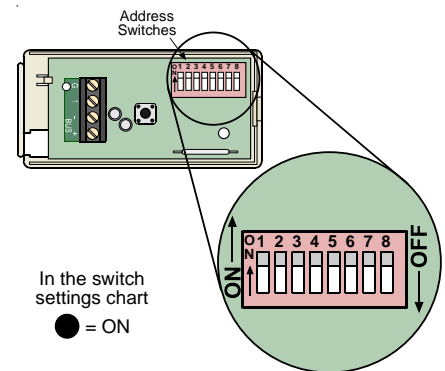
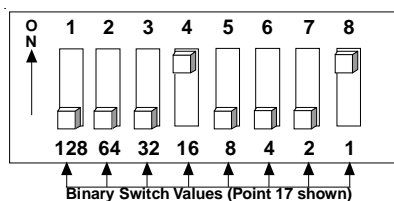
## 6.0 Switch Settings

Set the address switch settings before connecting the DS7461i to the multiplex bus.



**No two DS7461i Single Zone modules may be set to the same address. Having two or more units set to the same address may prevent fault detection or cause multiplex bus failure.**

You can find the Address Switch Settings using the chart on the last page, or by calculating the decimal number of the address.



**The DS7400 Series control panels cannot be programmed for zone (point) addresses 001-008.**

