VersAlarm™ 1-Zone Tank Alarm

Standard, Model: VA-02 | Rated Type 1 (Indoor), Alarm Panel

Operation, Maintenance, and Installation Manual

ALDERON™ Industries

Leading Edge Control Products

Introduction

WARNING

Before proceeding with the installation or operation of the product, make sure to read all instructions thoroughly, as well as complying with all Federal, State and Local Codes, Regulations and Practices. The product must be installed by qualified personnel familiar with all applicable local electrical and mechanical codes. Refer to the National Electrical Code (NEC) (NFPA 70). Failure to properly install, test, and operate this product can result in personal injury or equipment malfunction.

Safety Guidelines

1. DISCONNECT ALL ELECTRICAL SERVICE BEFORE WORKING ON OR HANDLING THE PRODUCT.
2. DO NOT USE WITH FLAMMABLE OR EXPLOSIVE FLUIDS SUCH AS GASOLINE, FUEL OIL, KEROSENE, ETC. DO NOT USE IN EXPLOSIVE ATMOSPHERES.
3. ALARM PANEL MUST BE MOUNTED INDOORS. FOR OUTDOOR APPLICATIONS, CONSULT FACTORY.

Specifications

Primary Power
120VAC, 50/60 Hz

Circuit Board Primary Power
11.1VDC, 500mA maximum

Circuit Board Secondary Power
9VDC, standard 9VDC battery
(battery backup; not included)

Watts
1.4 Watts

Field Connection Sensor
9-10VDC, 200mA minimum
(signaling device)

Auxiliary Contacts
24VDC, 500mA maximum (each)
Normally Open

Auxiliary Alarm Power
8-10.2VDC, 150mA maximum

LEDs
Green (power) and Red (alarm)

Buzzer
85 dB @ 10-feet

Wall-Mounted Power Supply
120VAC, 50/60 Hz (input)
11.1VDC, 500mA maximum (output)
(6-foot cord)

Enclosure
Thermoplastic
5 x 4 x 1.3 (inches)
Type 1, Indoor
Removable cover

Certifications
CSA (US and Canada)

Three-Year Limited Warranty

Description of Operation

The VersAlarm™ 1-Zone Tank Alarm is an indoor rated alarm panel, powered by a standard 120VAC wall outlet. The green power LED will illuminate (solid) when powered. The VersAlarm™ is a multipurpose alarm panel that can be used for a variety of applications, including but not limited to: septic tanks, sumps, holding tanks, pump chambers, water tanks, flow, pressure, condensate, temperature, and any others where a “dry” contact can be connected to the alarm panel.

The alarm panel is equipped with audible and visual alarm indication, activated by a normally open or normally closed sensor wired to the terminals. A variety of sensors can be used such as a float switch, pressure switch, or any “dry” type sensor that “closes” during an alarm condition (normally open or normally closed). Installing a 9VDC battery (not included) provides battery backup during power outages. Use the auxiliary contacts to connect to building automation systems (BAS) and phone dialers. Multiple sensors (signaling device) can be connected for expanded monitoring.

An alarm condition occurs when the sensor (signaling device) contact is activated, during which the red alarm LED will illuminate (solid), buzzer will annunciate (solid), and the auxiliary contacts will activate. The alarm condition will stay on until the sensor is deactivated. If the alarm silence pushbutton is pressed during an alarm condition, it will silence the buzzer while the alarm LED remains on. The silence condition will reset when the sensor deactivates and the alarm panel will auto reset for the next alarm cycle.

Installation of the Alarm Panel

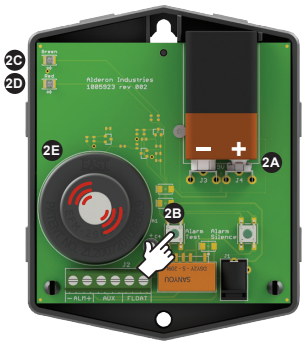
1. To install/replace the battery for the backup power feature, remove the enclosure cover (Fig. 1) and install a 9VDC battery (not included) by pressing down into the positive (+) and negative (-) terminal connections (Fig. 2). After installing battery, perform a quick test, press and hold the alarm test pushbutton (Fig. 2 and Fig. 3) to activate the alarm and make sure the battery is working properly. The alarm LED should illuminate (solid), buzzer should annunciate (solid), and auxiliary contacts should activate. Leave the enclosure cover off until step 3, step 4, and step 5 are completed for the sensor and auxiliary contact wiring.

Note: When on battery backup, the green power LED will not illuminate to conserve battery power.

WARNING: Do not connect AC power from a standard wall outlet or receptacle to the alarm panel until all steps of the installation are complete and the system is ready for testing.

(Fig. 1)

(Fig. 2)

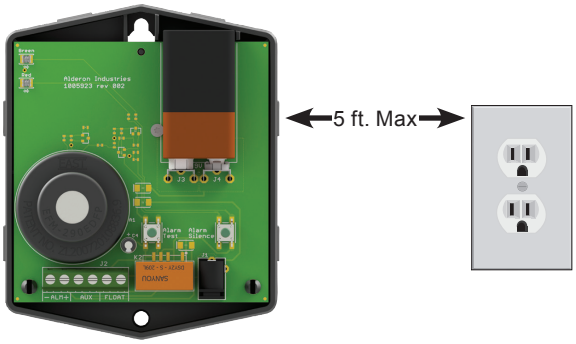


2A = Battery Connections
2B = Alarm Test Pushbutton
2C = Power LED (green)
2D = Alarm LED (red)
2E = Alarm Buzzer

(Fig. 3)

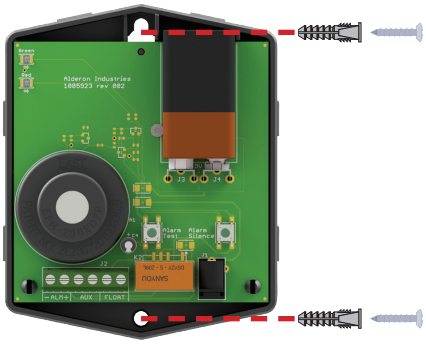
2. Determine the mounting location for the alarm panel and leave the enclosure cover off. Make sure power outlet (120VAC, 50/60 Hz) is within 5-feet of the alarm panel (Fig. 4). The power outlet should be on a separate circuit breaker from any other device and not on a switched receptacle to maintain system integrity. Mount the alarm panel using two (2) #6 self-tapping screws (not included / Fig. 5). Use two (2) #8 plastic anchors (not included / Fig. 6) if mounting the alarm panel to sheet rock.

(Fig. 4)



(Fig. 5)

(Fig. 6)



Alderon Industries, LLC - Leading Edge Control Products | 218.483.3034 | info@alderonind.com | orders@alderonind.com | alderonind.com

Installation of the Alarm Panel (continued)

3. If connecting to an existing alarm security system or building automation system (BAS), use 18 gauge 2-conductor wire to connect the existing product to the AUX inputs on the terminal block (Fig. 7). See below for wiring information. The auxiliary contacts are activated when the sensor (signaling device) contacts are “closed” during an alarm condition (normally open or normally closed). When connected, run the wire(s) towards the bottom/center of the alarm panel to go through the wiring access hole once the enclosure cover is replaced (Fig. 8 and Fig. 9).

4. Connect an optional secondary alarm device to the ALM “+” (positive) and “-” (negative) terminals, such as an Alderon™ indoor/outdoor LED strobe beacon (P/N: 7933) which provides remote alarm notification. Use 18 gauge 2-conductor wire, see below for wiring information. The secondary alarm contacts are only powered and activated when the float inputs on the terminal block are activated by the sensor (signaling device). When connected, run the wire(s) towards the bottom/center of the alarm panel to go through the wiring access hole once the enclosure cover is replaced (Fig. 8 and Fig. 9).

5. Connect the alarm switch (sensor/signaling device) to the FLOAT inputs on the terminal block (Fig. 7). See below for wiring information. The alarm is activated when any “dry” type sensor that “closes” during an alarm condition (normally open or normally closed). When connected, run the wire(s) towards the bottom/center of the alarm panel to go through the wiring access hole once the enclosure cover is replaced (Fig. 8 and Fig. 9).

Note: When installing a sensor or device, always refer to its installation instructions for complete operating information.

CAUTION: Route all wires away from sharp objects and internal components when installing wires.

Auxiliary Alarm Power:

Terminals ALM (“+” and “-”)
Connect negative (black) wire to Terminal ALM-
Connect positive (red) wire to Terminal ALM+
(optional secondary alarm device; Alderon™ indoor/outdoor LED strobe beacon)

8-10.2VDC, 150mA maximum

Auxiliary Contacts:

Terminals AUX
Connects to external monitoring device

Normally Open Dry Contacts
Normally open dry contacts can switch 24VDC, 500mA maximum (each)

Note: The auxiliary dry contacts of the alarm panel are normally open ONLY, recommended to use 18 gauge 2-conductor wire. Used for remote monitoring.

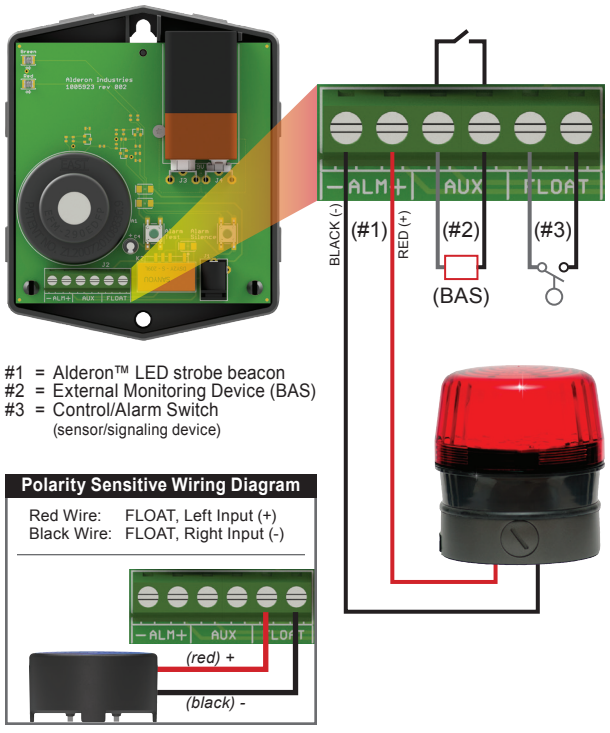
Sensor/Signaling Device:

Terminals FLOAT
Zone-1 Alarm
Normally Open or Normally Closed
Non-Polarity Sensitive Sensors (float switch); Inputs are Reversible
Polarity Sensitive Sensors; Red Wire - Left Input (positive) and Black Wire - Right Input (negative)

9-10VDC, 200mA minimum

Note: Use normally open control switches (sensor) for high level alarm indication and normally closed control switches (sensor) for low level alarm indication.

(Fig. 7)



6. After the wiring is completed and before replacing the enclosure cover, run the wire(s) towards the bottom/center of the alarm panel to go through the wiring access hole once the enclosure cover is replaced (Fig. 8 and Fig. 9).

CAUTION: Route all wires away from sharp objects and internal components when installing wires.

(Fig. 8)

(Fig. 9)

Installation of the Alarm Panel (continued)

7. Plug the alarm panel power supply into a standard wall outlet or receptacle (120VAC, 50/60 Hz), and then plug the quick connect of the power supply cord into the incoming power receptacle of the alarm panel. The green power LED should illuminate (solid) when powered (Fig. 10).

(Fig. 10)

Testing the Alarm Panel

1a. Test the alarm panel by pressing and holding the alarm test pushbutton (Fig. 11). The alarm LED should illuminate (solid), buzzer should annunciate (solid), and the auxiliary contacts should activate. Press the alarm silence pushbutton and the buzzer should silence while the alarm LED remains on. After the alarm test pushbutton is released, the alarm panel will auto reset for the next alarm cycle. Test product weekly to ensure system integrity.

(Fig. 11)

1b. Test the alarm panel by activating the sensor (signaling device) (Fig. 12). The alarm LED should illuminate (solid), buzzer should annunciate (solid), and auxiliary contacts should activate. Press the alarm silence pushbutton and the buzzer should silence while the alarm LED remains on. After the sensor is deactivated, the alarm panel will auto reset for the next alarm cycle. Test product weekly to ensure system integrity.

Note: If multiple sensors are used, perform a test for each sensor connected to the alarm panel to ensure complete system operation.

(Fig. 12)