Application Note Room Alert



Flood Sensor with Flood Cable Instructions For Installing The Flood Sensor with Flood Cable

The Flood Sensor with attached sensor cable is activated by liquid (i.e. water, fluid, etc.) making contact with an attached Flood Sensor Cable of any length. The Flood Sensor Cable can detect as little water as a single drop when it makes contact with AVTECH Software's patented Flood Sensor Cable. If the Flood Sensor is installed properly, this will result in an alert condition where the Room Alert hardware, Device ManageR software and/or other monitoring application will send out alerts and/or take an automatic corrective action.

Components

The Flood Sensor with Flood Sensor Cable includes the following components: (1) Flood Sensor device, (1) Flood Sensor Cable, (1) 25' RJ-11 Leader cable with special connector, (1) 5V Power Adapter for use with 110-240 VAC, (1) 25' Sensor Cable (24 gauge speaker cable) and (2) mounting screws.

Setup And Adjustments



The Flood Sensor is designed to be wall mounted above any anticipated water line and near a 110-240 VAC power source where the 5V power adapter can be connected. Mount the Flood Sensor to a vertical surface like a wall or pillar using the two mounting screws that are included. Then, locate the Flood Sensor Cable where you are most concerned about water or flooding. Naturally, you'll want this to be where water is most likely to run or settle.

CAUTION: The Flood Sensor Cable is designed to be located where water or flooding is most likely to occur. The actual Flood Sensor device is NOT designed to come into contact with water. Mount the Flood Sensor (i.e. the black box) to a vertical surface like a wall or pillar using the included mounting screws. Because the Flood Sensor uses main power via the AVTECH Software 5V Power Adapter, it is NOT appropriate to allow the Flood Sensor device to be located where it may be submerged underwater or come into contact with water for any length of time. For this reason, there is a 25' RJ-11 Leader cable that connects the Flood Sensor Cable to the Flood Sensor device.

The Flood Sensor Cable is designed to be located where water or flooding is most likely to occur. Typically, users will locate the Flood Sensor Cable along the floor next to a wall or circling valuable IT equipment. Some applications may require a creative approach. For example, if monitoring for leakage in a drop ceiling, you might run the Flood Sensor Cable along a plastic trough or inside a collection tray positioned to collect dripping water (i.e. like from an air conditioner). If water runs along pipes, you could coil the Flood Sensor Cable around the pipe so that water has to touch it as it runs down the pipe.

Once the Flood Sensor and Flood Sensor Cable are mounted and located as desired, connect these together using the 25' RJ-11 Leader cable. The RJ-11 connection plugs into the Flood Sensor (i.e. the black box) while the special connector plugs into the mating connector on the Flood Sensor Cable. These arrive connected by default although are often disconnected during the installation process for easy installation.

Next, connect the 25' Sensor Cable to the top or right set of switch sensor connectors on the side of the Flood Sensor (i.e. see graphic below). This may already be completed as the Flood Sensor is shipped with this already connected. Note that there are two sets of switch sensor connectors on the right side of the Flood Sensor. If you were to mount the Flood Sensor to the wall in an upright position, the set of connectors that monitor flood are on the top.

The set of connectors that are on the bottom or left allow users to connect a second Sensor Cable that monitors for a Flood Sensor Cable "fault". This would indicate that the Flood Sensor Cable has perhaps been disconnected from the Flood Sensor, that the Flood Sensor Cable has a severe pinch or twist that inhibits proper use, or that power is no longer being supplied to the Flood Sensor device. It is not required to use this additional sensor feature although it is very beneficial and helps to increase reliability by insuring that the Flood Sensor is in fact installed and working properly.



The green LED next to the power jack on the Flood Sensor box indicates the current status of the Flood Sensor. When the LED is solid green, it indicates the sensor is in a normal condition with the Flood Sensor Cable connected and no water detected. If water is detected, the LED will blink in a quick, constant pattern. If the Flood Sensor Cable is disconnected, the LED will blink twice, pause, then blink twice again and repeat the pattern until the cable is reconnected. The status LED is useful for determining if the Flood Sensor is functioning properly before or after connecting the sensor to Room Alert.

Since the sensor cable that is included with the Flood Sensor cable is 25' in length and most users do not locate the device that far from the host Room Alert unit, you may desire to split the sensor cable into two lengths of approximately 12.5' each. This would allow you to use both sensor channels on the Flood Sensor. Naturally, these would connect to two different sensor channels on the Room Alert unit so that you can get the appropriate alert notification for the specific alert condition being recognized.

Sensor cables can be any low voltage cable such as bell wire, speaker cable, data cable or telephone cable. Minimum voltage isolation 50v, minimum current carrying capacity 1A. Maximum recommended length is approximately 100' although shorter lengths will yield more reliable performance. The sensor cable length can be extended up to approximately 900' in length although signal strength can be impacted by other power devices like generators, UPS or florescent lights. Test your setup to ensure proper operation.

The Flood Sensor Cable itself can be extended in length to create a longer cable that may better meet the specific application. AVTECH Software manufactures Flood Sensor Cables in 8' and 24' lengths. These can easily be connected end-to-end for extended lengths that are multiples of 8'.

WARNING: DO NOT CUT the Flood Sensor Cable for any reason as this will damage the Flood Sensor Cable. AVTECH Software has no responsibility for Flood Sensor Cables that have been damaged in handling or modified for any reason.

For instructions on how to connect any sensor to a Room Alert environment monitoring unit, please see the associated *User's Guide & Reference Manual* for that specific model. Please consult this manuals or look online at <u>AVTECH.com</u> in the Support section for additional materials and information.

IMPORTANT SAFETY NOTICE

The Screw Connectors On The Sensor ID Boxes Are Volt-Free Contacts Only. Do Not Connect These Terminals To Any Live Circuit. A Qualified Electrician Should Be Consulted To Test Any Wires You Connect To The Room Alert ID Box For The Presence Of Electrical Voltages And If Any Are Detected, They Must Not Be Wired To The ID Box. The ID Box May Become Dangerous If You Connect It To A Live Circuit. Never Connect Main Power To Any Of The Room Alert Sensors Unless Specifically Instructed To Do So Using The AVTECH Software 5V Power Adapter. If Required, An AVTECH Software 5V Power Adapter Will Be Included With That Sensor. DO NOT Use Switch Sensors In 'Explosive' Environments Unless Approved For Those Environments.

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