

## Dtetection-200 Monitoring and Water Shut off System



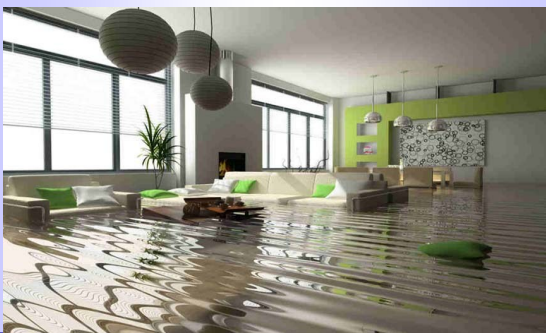
**Valve Station**—The Valve Station incorporates both water shutoff and alarm and alert functions. It features include:

- ◇ Auto shutoff triggered by a water event
- ◇ Manual on/off from valve station
- ◇ Periodic recycle of valve (daily/weekly)
- ◇ Valve faulty notification
- ◇ Alarm/Alert/Maintenance notification by email and text messaging

**Sensors**—The sensors are wireless and up to 32 sensors can be assigned to a valve station. Sensors are placed near water sources and are in constant communication with the valve station.

**Industrial Valves**—The valves are industrial grade and come in sizes from 1/2 inch to 1 1/2 inches

### Don't Let a Water Leak Turn Your Property Into a WATER DISASTER



## Operations

Once everything is connected, and power is applied both to the station and valve, it is operational. To manually disable the valve, simultaneously press and hold the KEYBOARD ENABLE button and the number four button.

After the second beep is heard, release both buttons. You will hear a double beep and the valve will begin closing. To turn the valve on, simultaneously press and hold the KEYBOARD ENABLE button and the four button. After the third beep is heard, release both buttons. You will hear a double beep and the valve will begin opening.

When a water leak is detected, the valve will automatically close. To turn the water back on after repairing the leak, follow the directions above to open the valve.

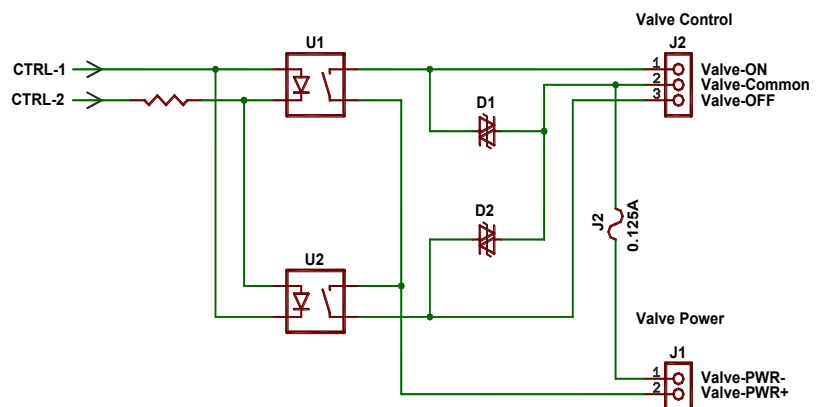
## The Valves

The valve station was designed to operate with a number of valve manufacturers and valve types. Both ball and solenoid type valves are available.

Figure 1 conceptually shows the relay configuration within the dialer. The switches within the dialer are small solid state relays that can switch up to 100 mA and handle up to 24 volts AC or DC. Low current valves, such as the Belimo TR24 3 and LRX24 3 can be driven directly by the dialer.

Valves that require more than 24 volts or more than 100 mA total require an external relay. D1 and D2 handle the inductive kick-back that occurs when the power is removed from the motor that otherwise would damage the switches, U1 and U2.

For existing valves with actuators, the valve station can provide a contact closure output to the actuator to close the valve.



## DTECTION PRODUCTS and SERVICES

### DTECTION MONITORING SYSTEM

The Dtection System consists of:

1. Dtection's Central Server which is located at a secure data center, and
2. Wireless, microprocessor-based, sensing components which are located in customer building(s) in water-source areas.

Upon a detection of a water leak, a local alarm is sounded, automated phone alerts are placed to designated recipients. E-mails and text messages are sent (indicating the date, time and exact location of the water intrusion) and response time is tracked.

### DTECT-200 MONITORING AND WATER SHUT-OFF SYSTEM

In addition to all the monitoring features of the Dtect-100, the Dtect-200 is

attached to water valves that are automatically closed in the case of a water problem. In this way, sections of a building can be isolated from further water damage. Valves are available in all sizes and configurations.

### THE CENTRAL SERVER AND ITS WEB PORTAL SERVICE

Dtection's Central Server is the heart of all Dtection systems. It is the answer to the customer's question, "How do I know the sensors are working?" In addition to monitoring the on-site components (sensors and base stations) for proper operation, the central server also renders all alarm and alert notifications, records all alarm-related activity and makes all this information available to the customer anytime 24/7 through its on-line WEB Portal Service.

### THE ON-LINE WEB PORTAL SERVICE

When logged on, the customer can:

- Monitor his on-site equipment
- Customize and edit his alarm procedures
- Evaluate and augment Dtection's automated activity reports which can be used to evaluate response procedures and to provide insurance providers with clear evidence of disasters avoided - often resulting in more favorable insurance rates.

Dtection is already protecting many well-known commercial and residential buildings, retail stores and medical and laboratory facilities. Find out why. Call us today.



### THE ON-LINE WEB PORTAL PROVIDES REAL-TIME INFORMATION 24/7

Base Station Name (Serial Number)	Battery	Communication	Check-In Time
10th Floor Base Station in Phone Room (00024BE9) <a href="#">[EDIT]</a>	<span style="color: green;">●</span>	<span style="color: green;">●</span>	3/4/2010 2:44:36 PM
↓ ↑ * Use arrows to expand and contract list of Alarm Recipients			
Transmitters Connected to 10th Floor Base Station in Phone Room (12)			
Transmitter Name (Serial Number)	Battery	Communication	Alarms
10th Floor Mens Restroom Stall (00012D90) <a href="#">[EDIT]</a>	<span style="color: green;">●</span>	<span style="color: green;">●</span>	<span style="color: green;">●</span>
10th Floor Mens Restroom Urinal (00012D86) <a href="#">[EDIT]</a>	<span style="color: green;">●</span>	<span style="color: green;">●</span>	<span style="color: red;">●</span>
10th Floor Mens Restroom Sink (00012D8C) <a href="#">[EDIT]</a>	<span style="color: green;">●</span>	<span style="color: green;">●</span>	<span style="color: green;">●</span>

### EQUIPMENT STATUS VIEW

The central server monitors the operation of the remote components. By logging in to its Web Portal, the customer can view the status of all of his on-site equipment. In this example, the equipment on the 10th floor has several conditions that must be serviced. The sensor in the men's room stall on the 10th floor is in alarm. The sensor in the men's room sink has lost communication. Both of these conditions have been reported by phone, email and text messaging.


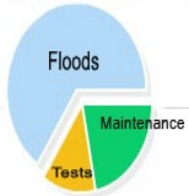
### AUTOMATED ACTIVITY REPORTS

This is an example of a report created on-line by the user for the time frame from Jan 1 to Feb 1. The report shows that there were 32 alarms of which 21 were water problems that needed to be serviced. Notice the explanations that were added. The example only shows the first alarms of the 20.

The company and building are identified along with the time of the alarm, the time the alarm was serviced and the time that initial contact confirmed receipt of alarm message.

Jump to: [Water Alarms](#) | [Suspect Alarms](#) | [Positive/Cancelled](#)

Building Name 4291 AA Street  
Los Angeles, CA

Alarm Location	Alarm Time	Alarm Confirmed	Alarm Silenced	Note
21st Floor Seltzer Caplan Main Kitchen Floor Drain	1/4/2010 12:44:36 PM	<input checked="" type="checkbox"/>	1/4/2010 12:51:58 PM	Water that was getting into the counter part of faucet was making its way down the cabinet below the sink causing the alarm to go off.
11th Floor Mens Restroom Janitors Closet	1/5/2010 6:57:18 AM	<input checked="" type="checkbox"/>	1/5/2010 7:03:13 AM	The pvt on the water heater had popped off causing water to get in the floor and causing the alarm.