

TTK addressable water leak detection system allows reliable and fast detection at a very early stage of water leaks on any water equipment

# WATER LEAK DETECTION SOLUTIONS FOR WATER HEATERS

#### **TTK IN RESPONSE**

TTK is the leading manufacturer of Liquid Leak Detection Systems with over 30 years' experience, specializing in water, oil/fuel and acid liquid leak detection solutions in both commercial and industrial applications.



#### **OTHER TYPICAL APPLICATIONS**

- Fire Sprinkler Pumps
- Vertical Risers
- ▶ Piping in Critical Areas
- Boilers

- Hydronic Heaters
- Water Cooled Air Equipment
- Elevator Pits

\*Systems also available for Acid and Hydrocarbon Detection



















#### WATER LEAK RISKS IN COMMERCIAL BUILDINGS

- Water leakage is a common issue for all types of commercial properties.
- Unaddressable leaks on pressurized systems will cause significant flooding, leading to severe financial consequences.
- If addressed early, damage and costs incurred can be mitigated.
- Regular maintenance is always suggested, but a reliable leak detection system will allow for 24/7 monitoring and early detection.

#### **HOW DOES TTK WATER LEAK DETECTION SYSTEM WORK?**















VALVE



- Upon contact with water, the sense cable detects and pin-point the location (precise to 1 ft) of leak thanks to its embedded microchip.
- The cables communicate with the panel via a digital communication protocol.
- The digital panel triggers an audible alarm, displays the location and details of the fault on an interactive map display.
- It reports to the BMS, sends email alerts to a LAN-connected BMS.
- When an alarm is triggered, a relay is activated, the water will be shut off to the water heater to prevent it from continuously flowing into the property thus limit the damage.





## TTK WATER LEAK DETECTION SOLUTION FOR WATER HEATER

TTK water leak detection system consists of two essential parts: digital leak monitoring panel and addressable sense cable.

To BMS

TCP/IP

Relay

End Termination

Addressable Water Seuse Caple EG-EC

Leak Monitoring Panel

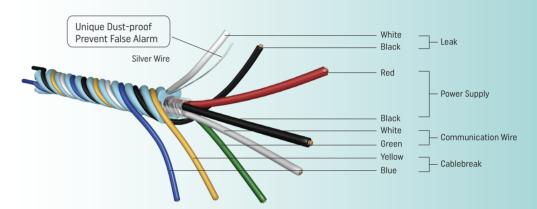
Leading Cable

Modbus



#### ADDRESSABLE WATER SENSE CABLE

The addressable, microprocessor-embedded sense cable provides fast detection and pin-point location of water leaks, along entire length. Self monitoring cable (or point sensor) will communicate status to controller.



#### **ADVANTAGES OF TTK WATER SENSE CABLES**





Reactive to even small puddles of water



**FALSE ALARM PROOF** 

Non-sensitive to humidity, condensation, dust, metal particles or drip pan edges



HIGH VISIBILITY LED

Ouick identification of individual cable status



**REAL-TIME COMMUNICATION** 

Microprocessor embedded allowing intelligent monitoring of cable status



Made with special Low Smoke Zero Halogen materials

#### **DIGITAL LEAK MONITORING PANEL**

Designed to collect and display information from microprocessorembedded leak sensors on local panel and communicate to Building Management System via Modbus or TCP/IP protocol.



Simultaneous alarms displayed



directly from the screen at real time

#### WHERE TO PLACE THE WATER SENSE CABLES?

Hold-down Clips

- The sense cables are installed surrounding the base of the equipment (eg: water heater), in a position where the leaking water would first appear,
- mounted in a drip pan
- mounted directly on a concrete pad.
- There are a few factors to take into consideration when deciding where exactly to place the sense cables. Contact Factory Representative for a tailored solution for your project.



Dynamic map show the leak

### **ADVANTAGES OF TTK** WATER LEAK DETECTION SYSTEMS

- Early detection with accurate location of leaks (precise to 1 ft)
- Reliable detection: unique cable structure helps to efficiently prevent false alarms
- Simultaneous faults can be detected, no single leak can hide behind another in the same zone
- Addressable system: microchip embedded into each sense cable
- Very fast response & reusable cables
- ▶ TCP/IP connection, MODBUS integration
- Robust system with long service life, standard 10 year warranty