



EnviroTech Alarms Ltd

LEAKSTOPPER RANGE Multizone water leak detection systems

WHAT DOES THE PRODUCT DO?

The LeakStopper detects water leaks and instantly triggers an alarm to warn you. It is capable of monitoring between 2 and 64 (more if required) areas simultaneously. If more than one of these areas has a leak, the LeakStopper can show this.

HOW DOES IT WORK?

Each zone on the alarm panel can be connected to a water detection sensor. This can be a sensor tape, a probe, an in-line sensor or a pad. Should water touch any of these, it will signal the panel to set off an alarm. Using a multizone panel allows a number of different areas or a large area to be defined into zones. Should a leak occur in any of these, the LeakStopper will indicate where it is.

HOW DOES IT DETECT WATER?

Water (unless purified) contains contaminants such as ions and salts and it's these within the water that are conductive. The sensors (conductors) used for leak detection are separated by a carrier and the water acts as a path for a very low electrical signal to pass from one to the other. It is this action that triggers the alarm.

WHAT OUTPUTS ARE AVAILABLE?

- 3 X 2 amp Volt free changeover common alarm relay. Will switch state on any zone detecting an alarm. Useful for connection to an external sounder/beacon, for switching on a pump or triggering a SMS text dialler. Ideal for connection to a BMS.
- 2 amp individual zone relays (2 per zone) will switch only when a particular zone detects a leak. Ideal for connection to valves on water supplies.
- 12VDC output for running low voltage devices directly from the panel up to 500mA.
- Power fail relay will switch should the mains power be interrupted.
- Output connector for Echo repeater panel used for remote monitoring in a different location to the main panel location.



Sensor Types:

Sensor Tape: Available in 1m, 2m, 3m, 5m and 10m lengths. Plug and socket connections mean any length can be made up by simply connecting the various cable lengths together.

Sensor Probe: Adjustable height from the floor between 0 and 25mm. Protective cover helps stop accidental damage. Multiple sensors can be linked in series to cover large areas.

Sensor Pad: Ideal for placing in drip trays, under shower trays etc. Little bigger than a matchbox, these sensors can be linked together in series.

Inline Tee Sensor: perfect for putting in the overflow pipes to detect and signal an alarm if a tank becomes too full.

Intelli-Probe: Used when the distance from the alarm panel is over 100m. can be configured as a junction box to plug in sensor tape, a probe or to connect a sensor pad to.

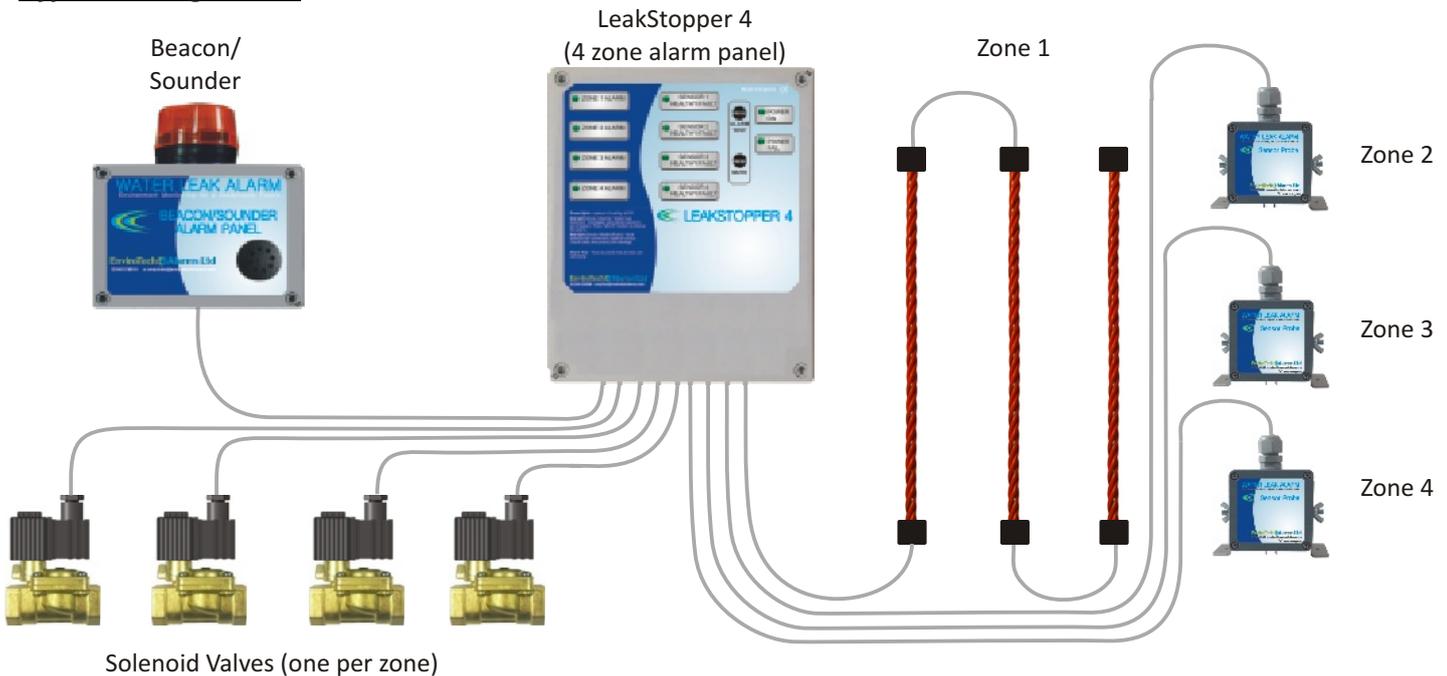




LEAKSTOPPER SPECIFICATION

Zones	2, 4, 8, 16, 32, 64 +
Input Voltage	230VAC (5W)
Outputs	3 x common alarm volt free relays + individual zone relays
IP Rating	65
Maximum Coverage per Zone	100m (more when Intelli-Probe is used)
Cable Rating (to sensors)	4 core 0.22mm ² conductor
Valve Compatibility	12VDC and 230VAC Solenoid Type
Battery Backup	20 hours standby mode

Typical Configuration



Optional Extras

Telephone Diallers

Available as a landline or SMS text message system.

Programmable telephone numbers.

Editable messages to inform recipient what area the leak has occurred.



Valves

Available with BSP female screw fittings in (1/2") 15mm, (3/4") 22mm, (1") 25mm, (1 1/4") 30mm, (1 1/2") 40mm and (2") 50mm

1/2" and 3/4" WRAS approved solenoid valves.

230VAC and 12VDC options



Sounder/Beacon

Super bright amber beacon

Load sounder

Triggered when an alarm is detected by the master alarm panel

Easily installs to panel with a single plug in connector



Echo Repeat Panel

Simulates an alarm from an alarm panel located in a different part of the building.

Can be located in a reception or security area where people are present.

Sounder and LED light output.

Powered directly from the main alarm panel.



TECHNICAL SPECIFICATION**Product Overview:**

The LeakStopper Multizone is a range of water leak detection alarm panels designed to notify that a leak has occurred and where it is. Available in any size between 2 and 64 + zones, each alarm panel has the capability to connect to sensor tape, sensor probes and/or sensor pads. The LeakStopper Multizone has individual zone relays and a battery back up as standard as well as common alarm relays.

MAIN FEATURES:

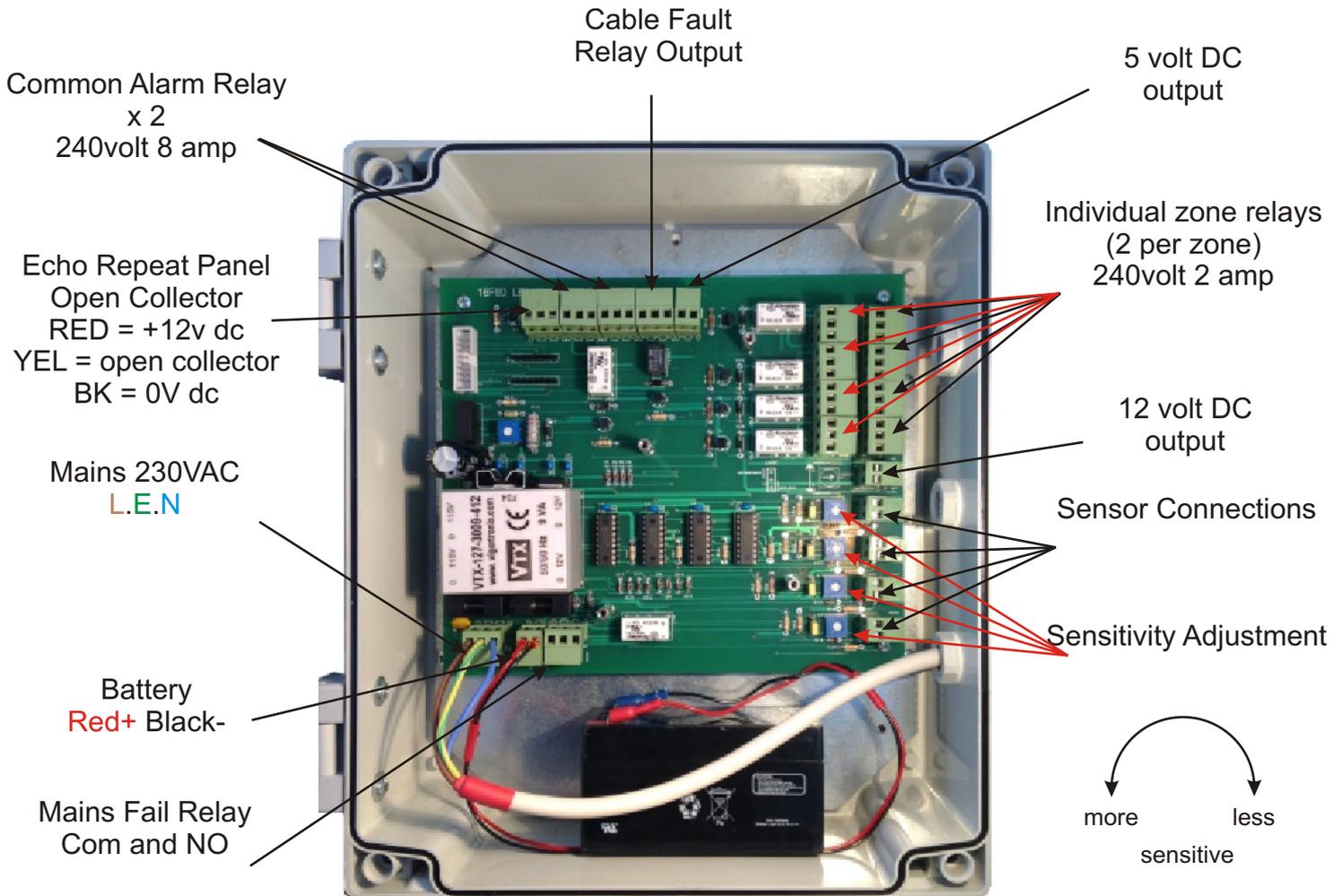
100m of cable per zone (more if Intelli-Probe is used)	Visual alarm output for each zone
Adjustable sensitivity for every zone	Sensor fault monitoring
2 x volt free relay contacts per zone	Connection to BMS and valves
Inbuilt audible alarm output	Auto resets after leak has been dried out

Product Specification:

Supply Voltage:	Self sensing 120VAC to 240VAC 40 - 60Hz +/- 15% SMPSU
Supply Current:	3A max
Current burden on standby:	35 Watts @ 230Vac +/-15%
Alarm Relay:	DPCO volt free contact
Contact rating:	2A@250Vac resistive
Fault Relay:	SPCO volt free contact 1A@50Vac resistive (signal only NOT MAINS VOLTAGE)
Power Fault Relay:	SPCO volt free contact
Contact rating:	2A@250Vac resistive
PER ZONE Alarm Relay:	DPCO volt free contact
Contact rating:	2A@250Vac resistive
Each Sensors Inputs:	One set of terminals (each can take more than one sensor) terminated with a signal diode
Sensor Types:	Sensor Cable, Probe Sensors, Pad Sensors, In-line sensor, Intelli-Probe Sensor
Maximum Cable Length:	100m combined link connector cable to sensor cable per zone
Alarm LED :	5mm Flashing Red. 1 for each zone
Fault/Healthy:	LED: 5mm TRI colour. Green zone healthy & Red zone fault
Alarm Hysteresis:	Detects between 3K ohms & 20K ohms dependant on the sensitivity adjustment potentiometer
Audible alarm output:	80db@10cm continuous tone
Electrical Connections:	All un-pluggable terminals sized 0.5-2.5mm ² cable

Housing Material:	The housing is grey ABS with hinged lid. The door is lockable by six screws
Dimensions (3 to 8 zones):	285mm high, 235mm wide and a depth of 105mm.
Dimensions (9 to 32 zones):	600mm high 300mm wide and a depth of 132mm
Dimensions (33 to 64 zones):	1200mm high 600mm wide and a depth of 132mm.
Ambient Range:	-10 to +50deg C, 0-90% RH condensing
Battery Charge voltage:	13.6Vdc float charge sealed lead.
Battery run time standby:	20 hours @ full charge dependant on condition.
Country of Origin:	U.K.

Typical connections (LeakStopper 4 Panel shown as example):



Installation:

Mounting; The LeakStopper Multizone range of alarm panels have been designed to be surface mounted and are fixed to a wall using appropriate screws and wall fixings. Cable entry can be back, bottom, top or side entry using appropriate cable glands.

Electrical Supply; A 2 amp fused spur is required adjacent to the panel in order to power it.

Sensitivity adjustment; Less sensitivity may be needed on longer cable runs, each zone has independent adjustment.

Testing; Wet test - this is achieved using a wet cloth placed onto the sensor tape/probe/pad to simulate a water leak (note: the sensor will need to dry before alarm will reset). Dry test - achieved using a conductive material such as silver cooking foil wrapped around the tape/probe/pad.

TECHNICAL SPECIFICATION

Product Overview:

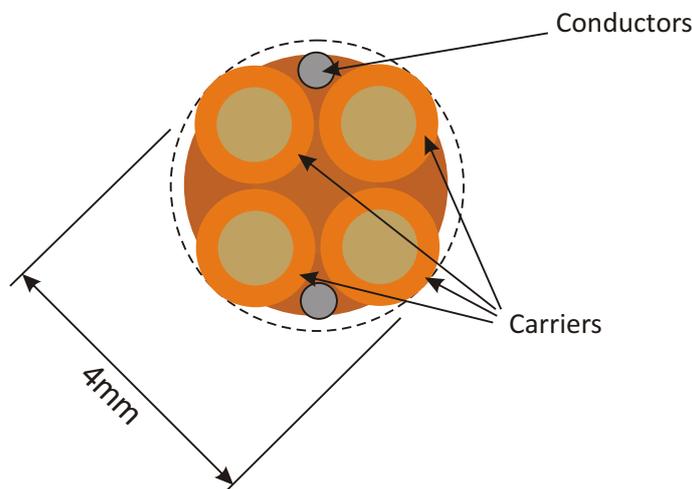
The sensor tape used with the LeakStopper water leak detection alarms has been specifically designed to detect the presence of water.



Product Specification:

- Category Type:** 4C Sensor Cable Orange
- Conductor Material:** Stainless steel wire
- Conductor Diameter:** 0.40mm x 2
- Insulation Material:** PVC
- Insulation Diameter:** 1.8mm(+/-0.10mm) x 4 twisted
- Compliant:** RoHS2 (2011/65/EU)
- Temperature rating:** -20°C to +80°C
- Voltage rating:** 5Volts @ 10 Milliamps

Cross section:



Connectors:



TECHNICAL SPECIFICATION



Product Overview:

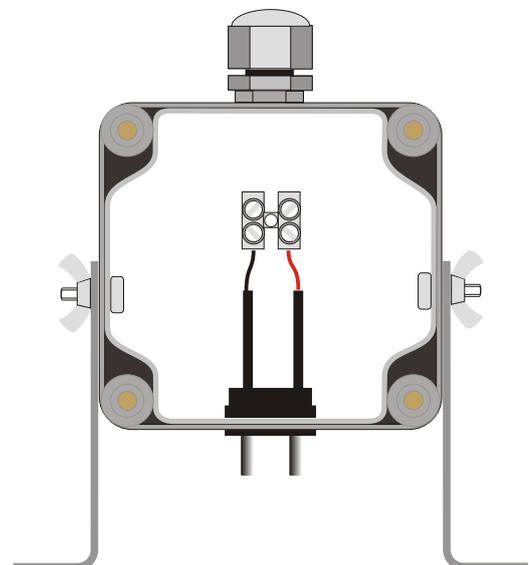
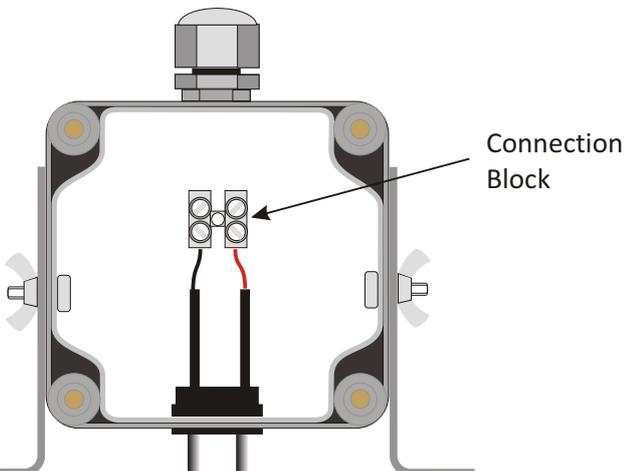
The sensor probe is a height adjustable water leak detection sensor for use in areas susceptible to leaks. It's contained in a rigid plastic housing to offer protection against possible damage. The floor brackets allow for vertical adjustment of the sensor height from the floor. This is particularly useful if the probes are used in an environment where a small amount of liquid is permissible due to a manufacturing or cleaning process.

Product Specification:

Enclosure:	High impact ABS plastic, 2.5mm thick, lid and base incorporates tongue and groove sealing system with neoprene gasket. Lid fixing screws are M4 stainless steel.
Enclosure dimensions:	82mm x 80mm x 55mm
Enclosure rating:	IP65 and NEMA4 (dust and hose proof)
Height Adjustment:	0mm to 25mm
Probe Material:	Stainless steel
Probe Diameter:	3mm
Voltage at probe:	5 volts @ 10 micro amps
Temperature rating:	-10°C to +40°C

Height adjusted to 0mm

Height adjusted to 25mm





TECHNICAL SPECIFICATION

The sensor pad is ideal for using in the drip trays of equipment where water is produced by process of condensation. Typically used where air cooling is fundamental to keeping an environments temperature stable such as data centres or comms rooms.

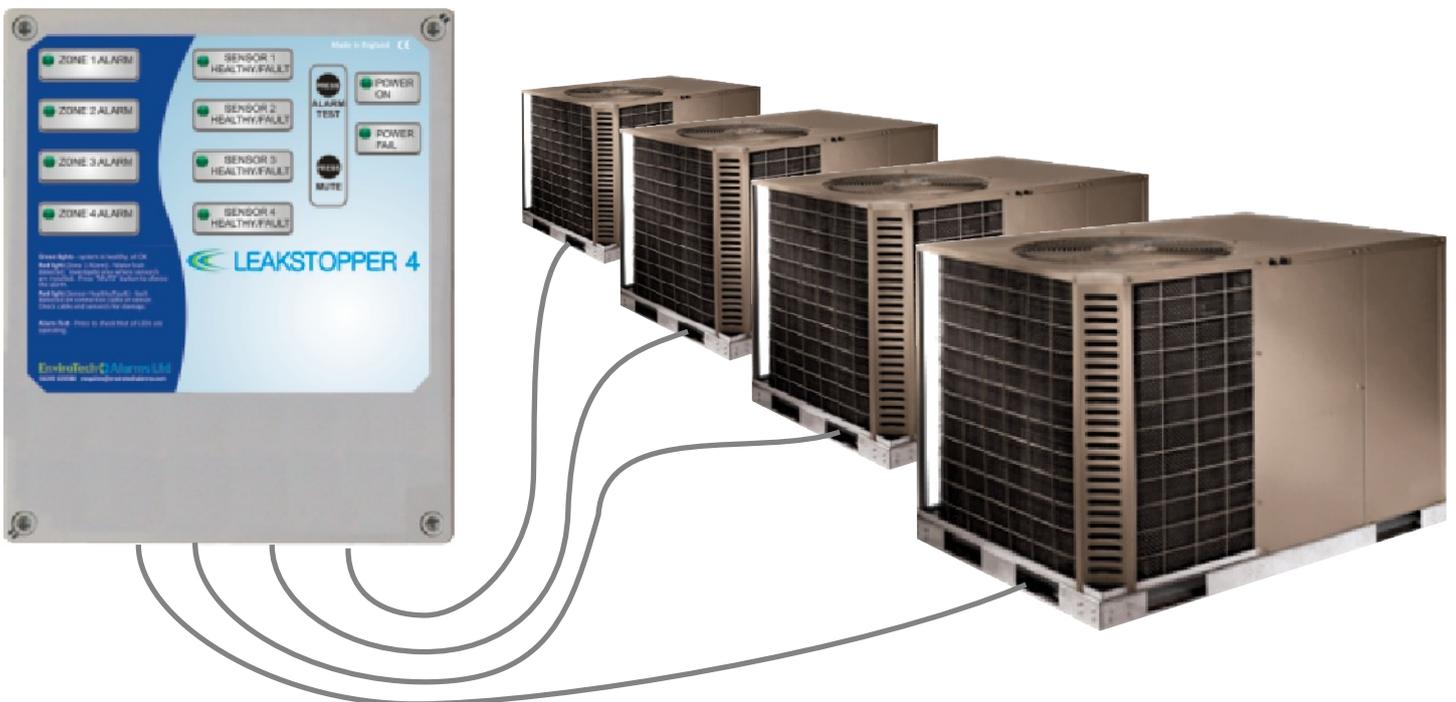
This low profile sensor can be simply placed face down in the drip tray under an AHU or CRAC unit.

A number of pads can be connected in series to allow several drip trays to be monitored by a single alarm panel or one zone of a multizone panel.

Product Specification:

- Enclosure:** ABS
- Enclosure dimensions:** 55mm x 55mm x 40mm
- Pad Material:** Tinned Copper
- Pad Dimensions:** 55mm x 55mm
- Voltage at probe:** 5 volts @ 10 micro amps
- Temperature rating:** -10°C to +40°C

Typical Installation:



TECHNICAL SPECIFICATION

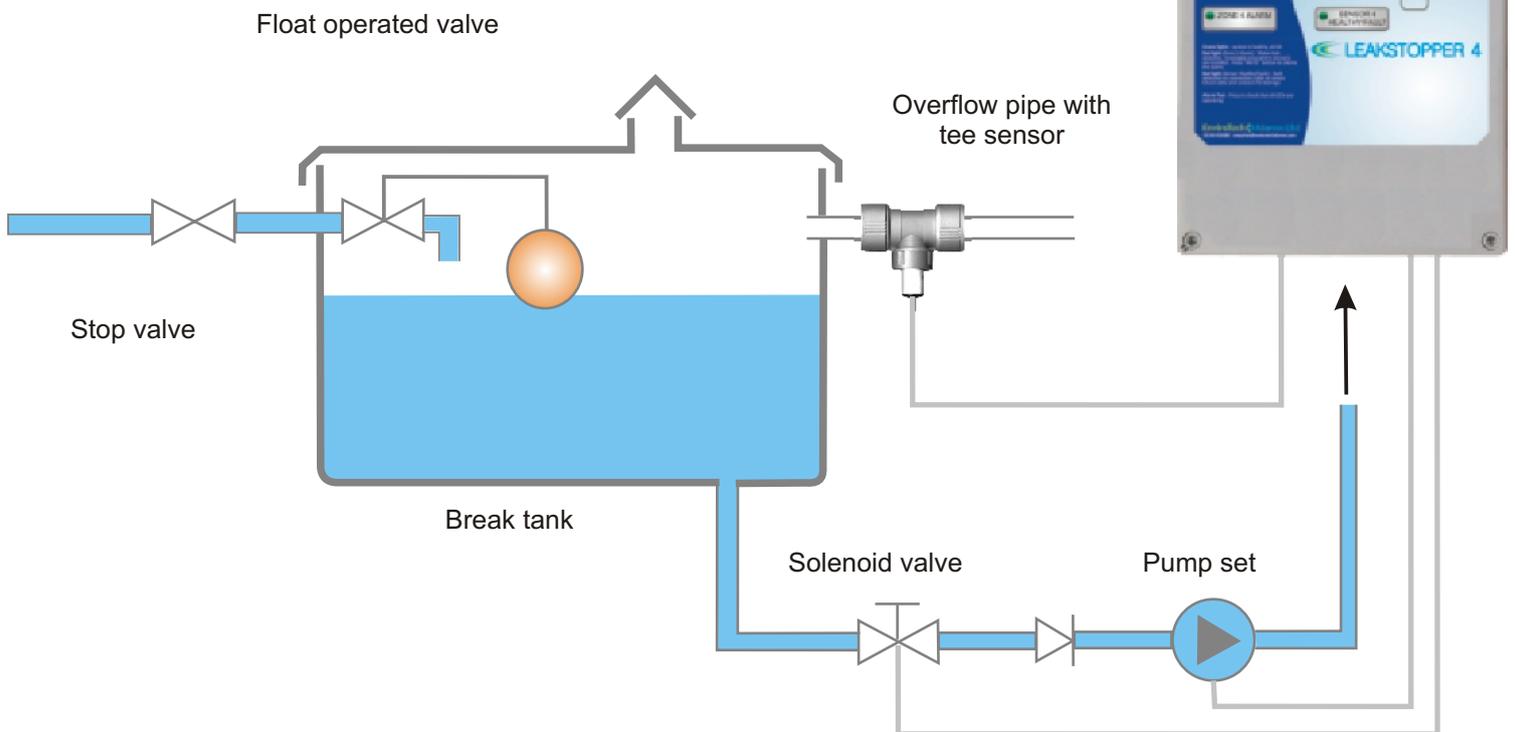


The tee sensor has been designed to go into the over flow pipes on break tanks, toilet cistern and header tanks. The sensor is located inside the tee piece and gets installed on the overflow pipe with the sensor at the bottom. Any water that travels down the pipe and into the tee sensor will make contact with the conductors of the sensor and set off the alarm.

Product Specification:

- Tee Piece:** Speed-fit plumbing fitting
- Tee Piece Sizes:** 15mm, 22mm, 28mm (other sizes are available)
- Tee Piece Materials:** Plastic or Brass
- Probe Material:** Stainless steel
- Probe Diameter:** 3mm
- Voltage at probe:** 5 volts @ 10 micro amps
- Temperature rating:** -10°C to +40°C

Typical Installation:





TECHNICAL SPECIFICATION

Product Overview:

This is a microprocessor controlled intelligent sensor designed to detect water leaks. The internal processor continuously analyses the environment for the presence of water and on detection triggers an alarm. In this instance, the onboard LED will switch from Green (all healthy) to Red and an internal relay will switch that can be used to signal back to an Envirotech Alarms master panel. It has been designed to work as a stand alone sensor or for installations where there are very long cable runs.

Product Specification:

Input voltage:	6VDC to 30VDC (can be powered directly from the main alarm panel)
Current consumption:	24VDC (30mA max and 5mA on standby)
Enclosure:	High impact ABS plastic, 2.5mm thick, lid and base incorporates tongue and groove sealing system with neoprene gasket. Lid fixing screws are M4 stainless steel.
Enclosure dimensions:	82mm x 80mm x 55mm
Enclosure rating:	IP65 and NEMA4 (dust and hose proof)
Height Adjustment:	0mm to 25mm
Sensor Type:	Probe/tape/pad
Max cable run length:	600m
Relay Contact:	1 amp 50 VDC
Voltage at probe:	5 volts DC @ 10 micro amps
Temperature rating:	-10°C to +40°C

