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4 to 64 Zone Water Leak Detection Alarm Type LD64



Standard Features

- Up to 64 zones using remote water leak detection 1, 2, 3 or 4 zone outstations
- Two Line 20 character alphanumeric display with Back Light for ease of Alarm identification
- On board audible warning device to alert local operators of a problem
- Alarms latched until Mute operated to give indication of transient water leaks
- Common Alarm, Common Fault and Power Fault output relay contacts to BMS
- Monitoring of each zone cable and sensor to ensure continuity and integrity
- AC sensing signal in the sensors to stop electrolyses and polarisation
- User defined alarm location wording shown in the display I.e. "4 Floor Male Toilets"

Optional Equipment

- Leak detected Lamps fitted inside the remote outstations giving local Alarm indication
- Water shutoff valve controlled from any or all of the outstation zones to stop a leak
- Electrical socket sized Remote audible and visual alarm unit for local alarm of a water leak
- 12 hour battery backup and power fault output relay to BMS



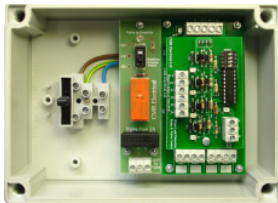
The LD64 water leak detection system has been designed to continuously monitor a large number of areas for water leaking from pipe work, air conditioning units, shower rooms, tea points, kitchens overflow systems damaged water tanks, overflowing sump tanks or ingress of water from outside the building.



Size 180 x 180 x 80mm

The system consist of a control units containing a alphanumeric display, Mute button, Report button, Back light button, common alarm and fault relays. The controller communicates to between one and 16 remote outstations that are designed to look for water leaks across the detection sensors, and report back to the controller if water has been detected or the zone has become faulty or disconnected. Each of the remote outstations can be factory configured as a 1, 2, 3 or 4 zone unit. When water or a fault is detected by one of the outstation zones, the controller will display the type of alarm (“Water detected” or “Zone fault”) and location (“4 floor male toilets”), the audible warning device will start and the common zone alarm or fault relay will close. The control unit will remain locked in this condition even if the water is removed from the sensor. Only Muting the alarm will unlock the display and stop the sounder. If the alarm is still active after muting, the display will continue to show the alarms location. If the alarm was cleared before the Mute button was operated, the display will revert back to its normal mode.

When the controller is detecting a number of alarms or faults and is not active with a new alarm, the display will show the number of current alarm and faults on the system. To find the location of all the current alarm or faults, pressing the “Report” button invites you to view them one at a time. The system can also contains a 10 hour battery backup in the event of a mains power failure.



Size 180 x 130 x 80mm

Outstation type OS4V

Water leak detection with Valve shut off valve control.

Size 120 x 120 x 60mm

Two types of outstations are available, the standard 1 to 4 zone type OS4 or the 1 to 4 zone with water valve control type OS4V. The OS4 unit only reports back to the main control unit if a leak or fault is found on any of its zones. The OS4V type will also control water valves to stop the flow of water when a leak is detected. Any or all of the OS4V zones can operate a water valve allowing, for example, zones 1 and 3 operated a 25mm water valve whilst zones 2 and 4 only reporting the presents of water. Inside the OS4V outstation a lamp for each zone has been provided for local indication of a water leak.



Outstation type OS4

Standard 1 to 4 zone water leak detection

Indication / Relay PCB type IR4

Local visual alarm indication and relay control



The OS4V outstation is fitted as standard with lamp indication to show if one of the zones has detected water without the need to go back to the main alarm unit. This unit can also be fitted to the standard OS4 outstation, and is very useful in multiple floors configurations. In addition to local alarm indication, the PCB can control via its open collector outputs 12VDC control relays.

Repeat alarm type SCA





Power directly from the outstation

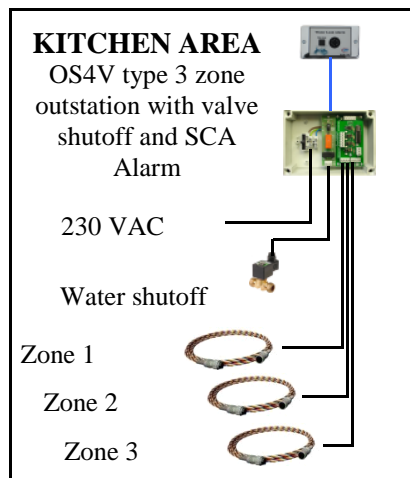
Both types of outstations can be provided with a common water leak detected audible and visual indication unit type SCA. This unit being a standard double gang electrical blanking plate, is complete with an audible warning device, alarm lamp and “Mute” push button. The SCA unit can be manufactured in any type or style of double gang blanking plate allowing it to blend in with its surroundings. A 12VDC 3 core cable connects the unit to the appropriate outstation type OS4 or OS4V.





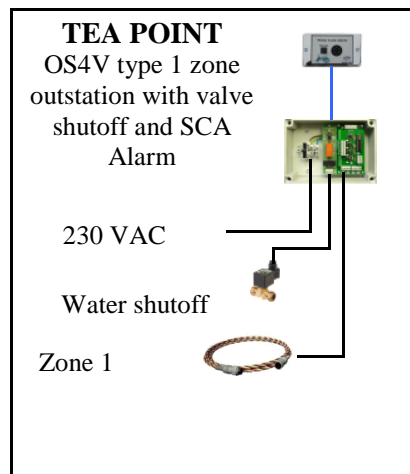
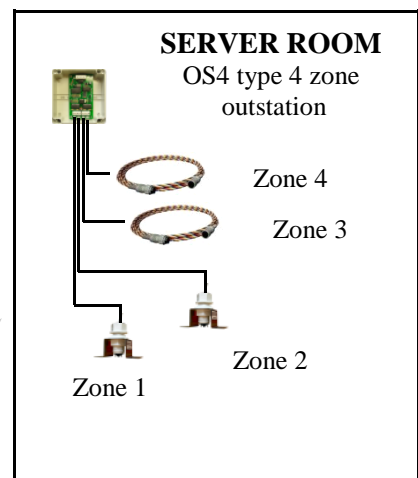
Water leak detection Sensors

<p style="text-align: center;">Detection cable</p>  <ul style="list-style-type: none"> ● Fully welded construction to stop false alarms ● Easy to clean or dry after a leak ● Maximum 50 metre length per zone ● stainless steel sensors embedded within the cable allowing it to be used on metal floors 	<p style="text-align: center;">Detection Spot Probe</p>  <ul style="list-style-type: none"> ● For use in plant rooms or banded areas ● Can be screwed or stuck to the floor ● Stainless steel mounting bracket ● 20mm Height adjustable
<p style="text-align: center;">Detection from appliances</p>  <ul style="list-style-type: none"> ● Designed to fit under electrical appliances ● Only 6mm high so can be fitted into narrow gaps 	<p style="text-align: center;">Overflow pipe sensor</p>  <ul style="list-style-type: none"> ● Can be fitted to a standard 15mm pipe tee ● Used to detects water in overflow pipes

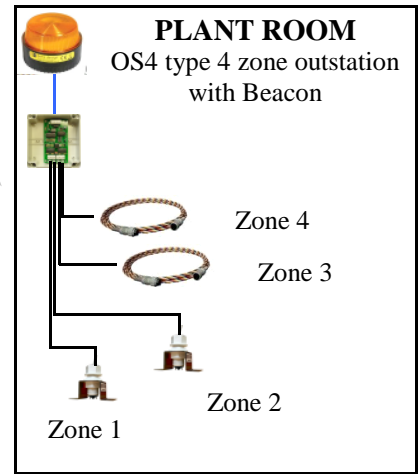


Typical Outstation Configuration

Main Alarm Unit
Between 1 and 16 four zone outstations, 64 zones, can be connected to the system. As standard the units has common alarm and fault BMS contacts.



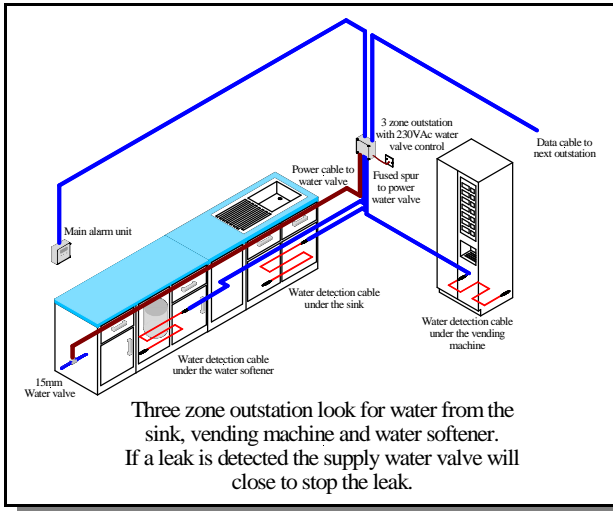
- Battery backup
- Simple SMS text messaging
- Text and Email messaging
- Speech dialler
- Beacon



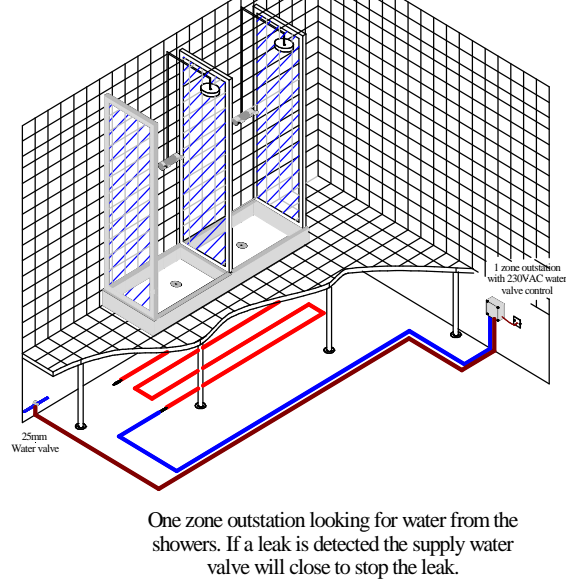


Typical Applications

Tea Point or Kitchen



Shower room wet room or Bathroom



Unlike some other water detection units on the market, our system uses an AC signal within the sensors. Using alternating current stops electrolyses which causes the sensors to disintegrate leaving the system unable to detect water. The use of alternating current also allows the sensors to be continually monitored even when submersed in water. This allows the system to self reset after water has been removed from the sensor. Also unlike other systems, only one zone is activated at any one time i.e. the system poles through each of the zones one at a time. This eliminated cross talk between zones leading to false alarms being generated.

Specification

Housing type	ABS Plastic, Light grey
Mounting	Wall, or surface
Size	180mm wide x 180mm high x 80mm deep
Outstations	One to maximum 16, one to four zone on a system
Input power	50 Hz single phase 230VAC +/- 10%
Burden	< 13VA
Power termination	Internal 3 way terminal block
Voltage used to detect water	10 VAC
Voltage to outstation	12 VDC
Connections to outstations	Internal terminal block
Access	Top, bottom, back or side
Output contacts	Common Alarm, Common Fault & Power Fault
Maximum time to detect water	Depending on the number of zones, between 1 and 11 seconds

Server or Comms room

