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Single and Two Zone Water Leak Detection Alarm with water 15mm valve Type LDV2



The LDV range has been designed to monitor critical areas for water leaks via spot sensors or linier cable. Any number of spot sensors or a maximum of 50 metres of linier water detection cable can be connected to each zone. The range comes as standard with monitoring of the interconnecting cable between the sensors and the control unit. Any disconnection of the sensors from the controller will instigate a "Sensor Fault" alarm. A 15mm 230 volt water solenoid valve is provided to shut of the common water supply if any zone detects water. To allow the valve to be opened whilst the detection cable is drying out after a leak, an internal override switch is provided. Complete with an audible warning device, mute push button, flashing 8mm red alarm lamp and 8mm Control live green lamp, the sensor monitoring circuit includes an 8mm tri-coloured LED, red (fault) /green (Normal) lamps per zone.

Features

- **Large indication LED lamps for ease of Alarm identification from a distance**
- **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 relay to onward signal to a BMS**
- **Lamps, relay and Horn test Facility to ensure that the unit is working correctly**
- **Zone signal isolation to stop multiple alarms due to sensors coming into contact with Earth**
- **Monitoring of each zone cable and sensor to ensure continuity and integrity**
- **A Bi-directional DC signal in the sensors to stop electrolyses and polarisation**
- **Individual Zone sensitivity adjustment allowing any zone to be set for high to low sensitivity**
- **230V 15mm Water valve**
- **Valve Override Switch**

Once a water leak has been detected, the controllers red "Alarm" lamp will start to flash, the audible warning device will start the common alarm relay will close and the water valve will close. The unit will remain in this condition even if the water is removed from the sensor, muting the alarm will stop the sounder, turn on the lamp permanently. If water is removed from the sensor before pressing the "Mute Alarm" button, after Muting the alarm lamp will extinguish indicating that no water is present the common alarm relay de-energise and the valve will open. However if water is still being detected only the audible warning will stop leaving the lamp permanently on and the relay energised. Only when the water has been removed will the lamp extinguish, the relay de-energise and the valve open.

All LDV units have a common alarm set of volt free contacts for onward signalling to Building Management Systems, telephone dialler and control systems.

A common alarm unit (AS2) installed within a security room, a corridor or control room, can be interconnected to the LDV unit.

Each zone is provided with a sensitivity potentiometer, this has been provided to allow individual zones to be set to high sensitivity for sensitive areas or low sensitivity for areas known to experience high humidity or water splashes.

Unlike other water detection units on the market, the LDV range from CMR electrical uses a bi-directional (AC) signal within the sensors. Using alternating current stops electrolyses which causes the sensors to disintegrate and a 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 for the sensor and no further action to reinstate or reset the system is required from the operator

Water Leak Sensors



Water Valve



Specification

| | |
|-----------------------|-------------------------------------|
| Housing type | ABS Plastic |
| Mounting | Wall, flush or surface |
| Size | 200mm wide x 150mm high x 78mm deep |
| Colour | Light grey |
| Input power | 50 Hz single phase 230VAC +/- 10% |
| Burden | < 3VA |
| Power termination | Internal terminal block |
| Voltage to sensor | Bi-directional (AC) 5VDC |
| Connections to sensor | Internal terminal block |
| Access | Top, bottom or back |
| Output contacts | Common Alarm & Common Fault |
| Supply to Valve | 230VAC |