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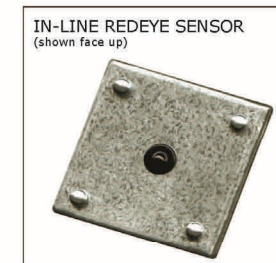
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## LIQUID LEAK DETECTION SYSTEM RedEye 1



The **Aqualeak RedEye 1** Leak Detection System has been designed to provide alarm monitoring of leaks of complex liquids such as Diesel and Heating Oils, as well as some chemicals and acids, and for simultaneous monitoring of Water Leaks in important areas such as Computer Rooms, Boiler Rooms, Tank Rooms, Plant Rooms, Pump Rooms, Storage Areas etc.

Leak Detection Monitoring is via zonally arranged RedEye 'Optoschmitt Trigger' Modules which are Opto-electronic Sensor Probes connected to the Control Unit by a Leader Cable. Unlike many other systems, Aqualeak RedEye Sensor Modules are permanently re-usable and are also very versatile because they detect the presence of oil, chemicals and other liquids including water. Competitive Surface Oil Detection Systems normally utilise sensors which have to self destruct in the process of providing the alarm and therefore require to be replaced immediately after any contact with the liquid being monitored. Conversely, conventional Water Detection systems cannot detect oil because oil is non-conductive and water detection systems require conductivity to operate. RedEye Sensors provide combined protection for both oil and water, and are reusable.

The RedEye 1 Unit is housed in an attractive ABS cabinet supplied completely ready for use. All that is required is screw fixing to the wall, a local power supply, and connection to the RedEye Sensor. Control Units have three levels of visual indication; green ZONE HEALTHY - red - ZONE FAULT and red - LEAK DETECTED. An audible alarm is activated by any abnormal condition and is silenced by pressing the mute button. The alarm is designed to automatically reset, requiring no operator input, but alarm lights remain on until the condition clears and this too automatically resets when alarm clears. RedEye 1 Units can be supplied with optional Battery Backup Pack to enable the system to continue functioning for 10 hours under full alarm conditions during a mains power failure.

The RedEye 1 is provided with two output alarm relays. The 'Alarm' relay is for linking to an optional Aqualeak Remote Alarm Unit (generally requires mains power), or to link to a BMS system, or to switch on/off pumps, to shut solenoid valves, to shut down process equipment or switch off power supplies etc. The second relay can be used by the BMS to 'time/date stamp' when the mute button was pressed to indicate when the alarm was acted upon, or to mute an external sounder. The RedEye 1 System can also be linked to the optional Aqualeak single alarm or four alarm Automatic Telephone Dialling Units which telephone remote addresses out of hours to advise that the emergency has occurred.

The RedEye 1 Control Unit is provided with individual Zone Alarm Lights and a muteable Horn which come on immediately the Optoschmitt Sensor is activated by the change of refractive index at the sensor opto-dome boundary caused by the presence of the leaking substance. The sensing and the alarm are immediate, and simultaneous with any other. The Alarm light remains on while the Sensor remains in alarm and remains on indicating that the opto-dome boundary is still in contact with the leaking substance. When the leaking substance has subsided or is removed, the system automatically clears and goes out of alarm without any operator input and is then automatically ready for the next alarm. The horn reactivates automatically after any previous muting without any operator input.

The Adjustable FS4 RedEye Sensor Probe is connected to the Control Unit by Leader Cable (max. approx 50m), and is normally hard wired on site. Sensor is fitted to a Stainless Steel floor mounted Bracket which can be screwed to the floor via holes provided. The Sensor top can be protected by a sturdy disconnection box. Height adjustment of the Sensor is by placing the sensor at the required level and tightening the adjustment ring. The FS4/RL In-Line RedEye Floor Sensor is mounted in a galvanised housing with four adjustable 'feet'. In either case the Sensor can be set to allow some liquid to be present without the alarm sounding (seepage within a Drip Tray) but to alarm on an increased level (leak or flood). If the Sensors are being used to monitor the floor, and to monitor for extremely small seepages, the Sensor could be located in a small routed pit dug in the floor surface and designed to form a catchment reservoir. A maximum of two RedEye Sensors can be on one zone.

RedEye 1 Unit	: Single Zone ABS Control Cabinet	Detection Probe Type	: Optoschmitt Sensor activated by change of refractive index at ptodome boundary
Controller Size mm ABS	: 150 Wide x 200 High x 80 Deep	Probe Sensor FS4/R	: Adjustable 0—25mm, plain top
Power Supply Options	: 110 or 230 VAC, SP, 50/60 Hz	Probe Sensor FS4/RB	: As above but with protected upper
Field Operating Voltage	: 12V AC	Probe Sensor FS4/RL	: In-Line galvanised housing with feet
Response Time	: < 50ms		

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