



The Aqualeak Environmental Monitoring System (EMS) Water Leak Detection System series are standalone leak detection systems designed to be capable of integrating into larger Building Management Systems (BMS) and networks, as required.

Designed for continuous operation with minimal human intervention, the EMS series is also compatible with a wide variety of sensing technologies (sold separately) to detect the presence of water and other liquids.

With 5 (EMS-5) or 10 (EMS-10) input channels as standard, the models are ideal for applications ranging from Main Equipment Rooms (MERs), Plant Rooms and Comms/Server Rooms.

This cost-effective multi-zone solution also requires no configuration for ease of installation and operation.

Benefits

- Remote monitoring for leaks
- Reduced risks of flooding
- Minimum human intervention required
- Built-in fault detection
- Built-in visual and audible alarms
- Multiple operating modes (including Test and Engineering modes)

Features

- Cost-effective multi-zone monitoring system
- Easy operation
- No configuration required - works straight 'out of the box'
- Designed and built in the United Kingdom
- CE Compliant
- Monitors for leaks, sensor cable breaks, and internal system faults

Operation

In operation, the EMS-5 and 10 models continuously monitor connected sensing equipment for both circuit integrity and the presence of water. If a leak is detected, the EMS-5 and 10 will or can be configured to:

- Activate a visual alarm
- Sound a buzzer
- Report to any network via Modbus, digital output, and/or email
- Activate default outputs
- Shut off local water supplies

EMS Series Models

In addition to EMS-5/10, the Aqualeak EMS series also includes the following models:

- EMS-5X/10X: 5 or 10 input channels (touch screen configuration)
- EMS-1: Single zone (DIP switch configuration)
- EMS-OS: Can be integrated with the EMS-5X/10 to make it scalable and modular up to 625 zones (suitable for large scale applications)

Technical Specifications

Master Panel/EMS Unit	Specification
Dimensions	335 x 270 x 110 mm - Width x Height x Depth
Weight	4.5 Kilograms
Supply Voltage	80 - 264 VAC (Volts / Alternating Current). 50/60 Hz frequency
Motherboard Output Relay Voltage	250 VAC
Motherboard Output Relay Current	8 Amps. Maximum into resistive load
Relay Minimum Load	10 Milliamps - at 5 VDC (Volts / Direct Current)
Detection Response Time	1 second per Outstation
Alarm (Audible) and Alarm (Visible)	85 Decibels within 0.6 m range; Visible via LED panel
Input channels	5 or 10
Leader Cable	Belden 9534 - variable length
Operating Temperature	0 to +50°C
Operating Humidity	10 to 95% - Relative humidity (non-condensing) at 45°C
Operating Altitude	0 to 3,000 Metres
Storage Temperature	-20 to +70°C
Sensor Cable Length (per input channel)	100 Metres (with maximum 20 probes). Use recommended yellow Sensor Cable. Also requires End of Line (EOL) terminator.

Relay Function and Triggers

Relay	Function	Description and Triggers	
1-10	Individual zone	Used to operate auxiliary devices	
11	Common Alarm / Fault	Relay latched upon alarm until acknowledged by User or Engineer	
		Zone cable break	
		Zone Alarm	
12	Cable break	Relay latched upon alarm until acknowledged by User or Engineer	
		Zone cable break	
13	Alarm	Relay latched upon alarm until acknowledged by User or Engineer	
		Zone alarm	
15	Watchdog	Relay normally energised. De-energised on any system fault	
		Motherboard communication failure	Motherboard loss of power
		Interface Board loss of power	Complete power failure to EMS
		Interface Board communication failure	