Aqualeak WG

AQUALEAK

The Aqualeak WG is a Major Leak Detection System specifically designed to help customers meet the requirements of the WAT-02 and WAT-03 elements of the Building Research Establishment Environmental Assessment Method (BREEAM) criteria, demonstrating the environmental and sustainability credentials of the property.

The system is capable of detecting major water leaks on the mains cold water supply of a commercial building and can be located at the site boundary or as it enters the property. The WG can operate as a standalone system or be integrated with a Building Management System (BMS).

The control unit can be programmed to monitor specific volumes of water, at specific times, which allows it to cater for set occupancy requirements. The system operates by monitoring the number of pulses given out by the pulse reader (where 1 pulse equals 10 litres of water). If the pre-set amounts are exceeded, a signal is sent to the WG unit which triggers an audible and visual alarm.

The WG can also autonomously shut off water feeds at set times to help contractors meet the CIREG best practice guidance for construction site water monitoring.

Benefits

- *Helps users meet BREEAM WAT-02/03 criteria*
- *Reduced risks of flooding*
- *Minimum human intervention required*
- *Single solution for monitoring large properties*
- *Can help users meet CIREG best practice guidance*
- *Helps reduce water consumption in building*

Features

- *7 day threshold programming*
- *Multiple outputs*
- *Pulsed input/output - 1 pulse = 10 litres*
- *24 by 7 monitoring*
- *Remote status monitoring when paired with external devices*
- *User configurable depending on monitoring requirements*
- *Capacitive touch interface*
- *Audible and visual alarms*
- *Monitors for leaks and internal system faults*
- *Can monitor different thresholds at different times*
- *Different flow rate monitoring at different times of the day*
- *Can autonomously close the valve at pre-set times of the day*

Operation

In operation, the Aqualeak WG continuously monitors the flow sensor connected to it for both circuit integrity and the presence of water. If a leak or fault is detected, the Aqualeak WG will and/or can be configured to:

- *Activate an audible alarm and illuminate the LEDs*
- *Activate default and user-defined outputs*
- *Report its alarm status to any connected device (BMS/SMS/beacon valve)*
- *Automatically switch to back-up battery if required*
- *Shut off local water supplies via a shut-off valve*
- *Allow users to investigate faults/alarms and perform diagnoses*

Compliance

- *CE compliant*
- *Designed and built in the United Kingdom*

Technical Specifications

Master Panel	Specification
Dimensions	146 x 86 x 69 mm - Width x Height x Depth
Weight	0.3 Kilograms
Supply Voltage	100-240 VAC (Volts / Alternating Current). 50/60 Hz frequency
Output Relay Voltage	230 VAC
Output Relay Current	8 Amps. Maximum into resistive load
Relay Minimum Load	10 Milliamps - at 5 VDC (Volts / Direct Current)
Leader Cable	Belden 9534 - variable length
Detection Response Time	1 second
Alarm (Audible)	85 Decibels within 0.6 m range
Alarm (Visible)	LED indicator on front panel
Operating Temperature	0 to +50°C
Display	3 lines x 16 characters LCD
Operating Temperature Valve	0 to +60°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
Input channels	1

Input-Output Connections

Item	Name	Notes	Relay Abbreviations
1	Alarm Relay	COM | NO | NC	COM = Common
2	Latching Valve Output	Connection for latching solenoid valve	NC = Normally Closed
3	Meter Input	PULSE IN |Flow GND	NO = Normally Open
4	Mode In S-24V	Connection for external alarm	
5	Pulse Output (for BMS)	GND | SG	
6	Mains Supply / Loop	E | E | N | N | L | L	**Main Abbreviations**
			LS = Live Supply LL = Live Loop NS = Neutral Supply NL = Neutral Loop ES = Earth Supply EL = Earth Loop
7	Mains Alarm Relay 1 & 2	NC | COM | NO | NO | COM | NC	**Mains Alarm Relay Abbreviations**
			NC | COM | NO | NO | COM | NC
8	Back-Up Battery	The supplied battery should be installed prior to initial set-up	