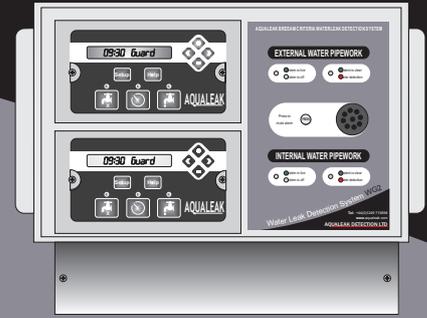


BREEAM W02 and W03 compliant products.



WG2 System

The System

The WG2 system complies with BREEAM 2008 Section W03, i.e.: it is a Major Leak Detection System which covers all mains supplies both in and outside the building, is programmable, has an audible alarm and can identify different flow rates; it also complies with BREEAM W02 as the system requires water meters with Pulsed Outputs.

The standard two zone WG2 System comprises a WG Control Unit with two modules marker Internal Water Pipework and External Water Pipework, two Pulsed Output Turbine Meters, and a Pulse Splitter. One Turbine Meter should be installed at the property boundary, and one inside the building just after the stopcock. The former will monitor external water usage, the latter the internal water usage. Where the outside wall of the building forms the property boundary, it is only necessary to use a single zone WG1 system, with one Turbine Meter.

As BREEAM specification does not require shut off at the mains, we do not supply latching valves for shut off as standard. However, we can supply these in sizes up to 65mm by request.



Example of Turbine Meter

Installation

The WG Control Unit (1 and 2 zone and BCCB) should be wall mounted adjacent to the stopcock, and requires a mains power supply spur. The unit should be linked to the Turbine Meters by a 1mm square 4 core signal cable (up to 50 metres) or a 2.5mm square 4 core signal cable (up to 100 metres). The cabling to the external Turbine Meter can be laid in the pipe trench. Screening may be required if other electrical cables are in close proximity.

The Turbine Meters have BSP threads up to sizes of 40mm, above which the meters have flanged connections. If valves are required, these should be 5V DC type latching valves, available from Aqualeak, and should be installed just after the Turbine Meters.

The Control Unit can also be linked to the BMS or any onward alarm system, remote output alarms can be connected to the PCB terminals marked 'Alarm' (240V AC 6Amp). A 'Reset' relay (240V AC 2Amp) can be used by the BMS to date stamp when the Mute button is pressed (to indicate when action was taken on the system alarming), or can be used to mute a repeater or remote alarm.

Operation

The System operates by monitoring the number of pulses (1 pulse equates to 10 litres of water) given out by the Turbine Meters – i.e.: the amount of water. The Control Unit will need to be programmed to suit occupants' requirements (the unit is factory set to allow 1 pulse (10 litres) of water through, in a 30 minute period, before it will alarm). The Pulse Splitter allows pulses from the Turbine Meters to be registered at both the WG Control Unit, and the BMS.

Adjustable parameters are: water volumes, occupancy periods, and days of the week. If latching valves are required, the system can then shut off the water when flow is exceeded, or at specific times of the day. Under normal conditions the Control Unit displays four green lights: 'System is Live' and 'System is Clear'. On alarming, the Unit displays 'Leak Detected', and the System Clear lamp changes to red, indicating 'Water Detected'. The alarm changeover relays will activate, providing onward alarm signalling to a repeater or BMS.

Pressing the 'Water On' button will mute the alarm, and return the system to normal. If it is necessary for the system to remain in alarm (and valves to remain closed), the Mute button will silence the audible alarm but the system will remain in alarm mode. Once the leak has been cleared, pressing the 'Water On' button will return the system to normal operation.

WG2 SYSTEM SPECIFICATIONS

System/Dimension	Width (mm)	Height (mm)	Depth (mm)
Wg1 (control unit)	200	150	77
Wg2 (control unit)	296	251	118
BCCB	146	58	86
Meters	Subject to pipe size	Subject to pipe size	Subject to pipe size

Electrical specifications

Mains L (Live) , E (Earth) and N (Neutral)

LIVE is fused with a 20mm, 'power' fuse 2Amp.

24V AC Control fuse is 20mm and is rated at 1Amp.

Reset relay is rated 240V AC, 2Amp.

WG SYSTEM SCHEMATIC

