Waterguard

TECHNICAL SPECIFICATION: WATERGUARD SERIES 7

Water Leak Detection Equipment Including BREEAM and CIREG Requirements

Internal only and major water leak detection: Complete protection for New Construction, In-Use and Refit and Refurbishment.
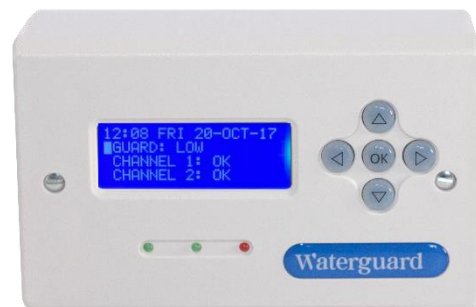
Designed specifically to fully comply with BREEAM WAT02 and WAT03 assessment criteria for water monitoring and leak detection, the Series 7 system will detect any minor and major water leak from both the site boundary and internally within the building.

This system will identify different flow levels using a pulse sensor sent to the control panel after every 1 or 10 litres of water flow, identifying leakage rates, e.g. continuous, high and/or low level, over set time periods with a self-learning audit function which monitors normal consumption.

The Series 7 BREEAM compliant water leak detection system reduces consumption of potable water through the effective management and monitoring of a buildings water consumption. Install internally as a single channel system for WATO2 BREEAM compliance or with an additional boundary water meter for BREAM WAT03 identifying leaks both internally and from the site boundary.

Multiple isolation valves can be added to protect against the damage and disruption caused by leaks. Although not a requirement of BREEAM isolation valves are essential to mitigate the risk of water damage during the construction phase for CIREG compliance.

The controller is completely adaptable to suite the user's requirements and water usage with several adjustable parameters and operational features listed.

Adjustable Parameters

The Series 7 can analyse water usage by volume per ½ hour, hour, guard period or 24-hour period. The system has two separate menus for perimeter setting and day to day operation. The Guard Menu is used to input user specific requirements as below:

- Maximum litre allowances in each guard period or per 24 hours.
- Maximum override time.
- Guard mode to suit buildings timetable.
- Times the building is occupied

Operational Features and Benefits

- Activated when the flow of water passing through the water meter is at a flow rate above a pre-set maximum for a pre-set time period.

- Able to identify different flow and therefore leakage rates.

- Fully programmable to suit the owner/occupiers' water consumption criteria
- Designed with an override function to avoid false alarms caused by normal operation of large water-consumption.
- Audible and visible alarm when activated by a detected leak.
- An integrated back-up battery will continue to power the controller for many months in the event of a mains power loss.
- Available with or without automatic shut off valves, valve requirement dependent on application.
- Compatible with water meters with pulsed outputs of 1, 10 & 100 Litres per pulse.
- Compatible with flow sensor for timed water consumption monitoring.
- Meter readings visible from the controller.
- Output link available to BMS.
- Full events log for checking detailed activity.
- Option to automatically switch guard level to high after 25 hours of no water use.
- Audit function records maximum litres of water used in high and low guard periods.
- Option to automatically shut off water supplies automatically outside operational hours.
- Connection available to booster/header tanks and pumps to isolate power in the event of a leak.
- Available for pipe sizes 15mm to 200mm.
- 12V and 240V versions available.
- Compatible with Waterguard DataCom for offsite alerts via SMS.
- Optional Waterguard Pulse Splitter allowing an additional pulse count to be sent to the BMS.
- Use in conjunction with the Waterguard PIR systems to isolate the water supply in frequented toilets and wet areas for maximum BREEAM credits.

Installation and Commissioning

Unlike other major water leak detection systems on the market the Series 7 range requires only one control panel to monitor both the internal and external water meters as well as control any additional solenoid/actuating valves. This control panel which requires a mains power supply is usually wall mounted in the buildings plant room but can be installed anywhere that is accessible to hear and see the alarm output. The control panel is then linked to the water meter(s) using 2 core cable (not supplied), (1mm2 up to 100 meters and 1.5mm2 up to 150 meters). Please see individual data sheets for information on compatible plumbing components.
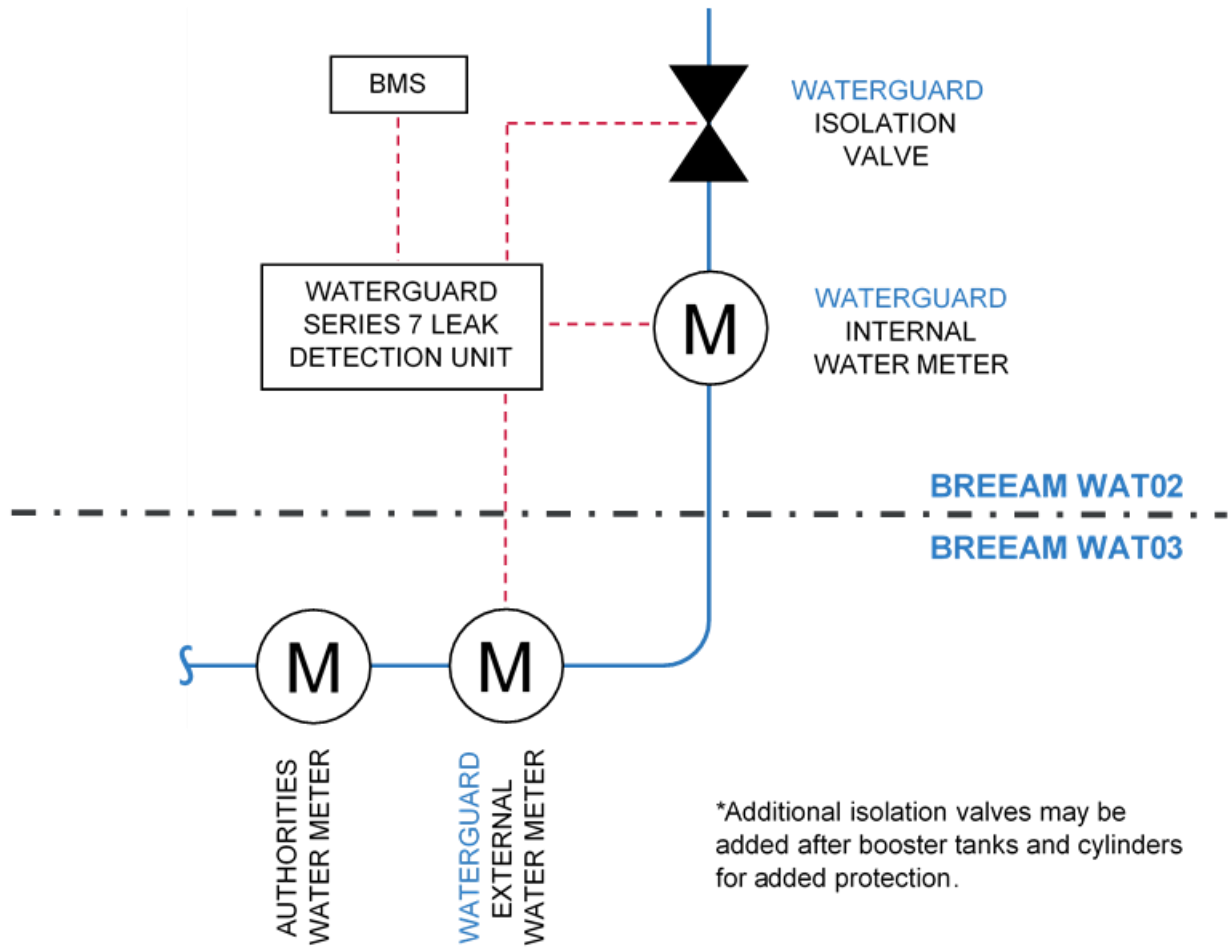
Please note: Latching solenoid valves connected to the Series 7 up to 2" have a maximum voltage of 6vdc and come equipped with a manual override. The Series 7 is not compatible with any other solenoid valve.

It is important to update the system parameters and commission each time the building is expected to experience long term dramatic changes in water consumption. A dedicated telephone contact is available for assistance during this time. Onsite commissioning when a certificate from the manufacturer is required is available at an extra cost by one of our engineers when the building is operational.

Waterguard

Standard System Configuration

BMS

WATERGUARD
ISOLATION
VALVE

WATERGUARD
SERIES 7 LEAK
DETECTION UNIT

M   WATERGUARD
INTERNAL
WATER METER

BREEAM WAT02

BREEAM WAT03

M   AUTHORITIES WATER METER

M   WATERGUARD EXTERNAL WATER METER

*Additional isolation valves may be added after booster tanks and cylinders for added protection.

Technical Data

Waterguard Series 7:

Size (W x H x D)	145 x 85 x 50mm
Power	12vdc 250mA/72 Mw (Transformer Included)
Volt free relay	24vdc, 1 amp (not included request on ordering)
Burst power (when about to operate a valve)	840mW for 5 seconds
Back up battery	AAA size, NiMH, 1.2V nominal, 850MaH
Initial back up battery charge time	Flat to full in 5 days
Expected battery life	1 year
Alarm output	Max switching voltage 30V, max switching current 100mA

Valves:

15mm – 54mm solenoid	6vdc derived from the control panel
54mm – 200mm valve driver output	150mS burst, capacity discharge, rated for 6V, 6W bipolar valve

Pulsed Water Meter:

Meter input	Supplies 3V at 3mA, 20uS pulse at 2Hz

Any application, water leak detection and prevention.

To find your solution visit **www.waterguard.co.uk.**