



CMR Electrical Ltd
Bolton House
Five Chimneys Lane
Hadlow Down
East Sussex
TN22 4DX
Tel: 01825 733600

Water Leak Detection System to BREEAM Wat 03 Type BLDA1-2



Standard Features

- Fully programmable to suite users requirements
- Two adjustable monitoring levels, occupied (High Flow) and unoccupied (Low Flow)
- Programmable flow monitoring periods for both High and Low flow periods
- Programmable constant flow alarm monitoring
- Water meter reading and Maximum / Minimum flow counters
- Audible and visual warnings for High or Low Flow
- Easy to navigate display system and one time setup procedure
- Back lit alphanumeric display to show clear readings and alarms
- High / Low flow common alarm volt free contact for remote alarm monitoring
- Water shutdown valve control
- Inhibit alarm / Sleep period to allow occasional known high volume water flows
- The system will interface with either relay or Solid State water meter pulses
- Input water meter pulses can be set to 1, 10 or 100 litres per pulse
- Output meter pulse provided for remote monitoring by a BMS

Optional Equipment

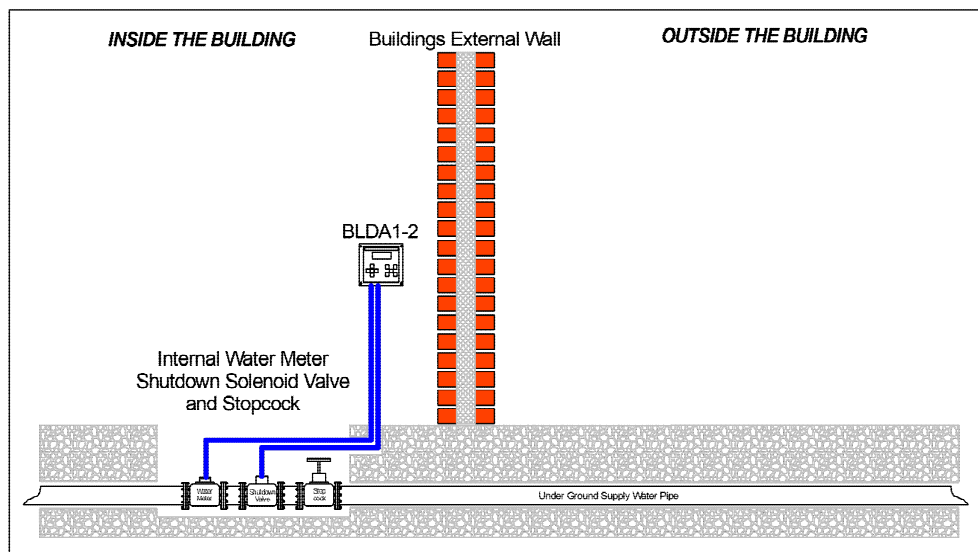
- 5 hour battery backup and power fault output relay to BMS
- Remote mutable Sounder Beacon
- SMS text messaging/Email unit



Breem Water Leak Detection

Principle of Operation

Being fully programmable to suite users' requirements, the alarm unit is connected to a pulsed output water meter installed to the main incoming water supply. This meter can be existing but must be fitted with a device that will give a volt free pulse output proportional to the flow rate and can be either 1, 10 or 100 litres per pulse. The system monitors the flow of water through the buildings meter, raises an alarm and if fitted, shuts off the water supply when the flow passing through the meter exceeds the pre-set maximum for a pre-set period of time. The unit also monitors for a continuous flow of water and raise an alarm if it doesn't see a gap in the flow pattern. By setting realistic flows and time periods any increase above the user defined settings will be detected and can be dealt with thereby saving water and limiting damage caused by a major leak.



Under Breem, one Credit is awarded where a Water Leak Detection System is specified or installed. The system must be capable of identifying major leaks both inside and outside the building, and should cover all water supplies to and within the building and between the building and the external utility meter. Breem requires two specific monitoring systems, one to monitor the external water supply between the boundary and the buildings stopcock and a second fitted just after the buildings stopcock to monitor for leaks within the building. As our systems use pulsed water meters, additional credits can be claimed under the Water Meter section of Breem .

Will the unit Meet Breem Wat02 requirements?

The BLDA1-2 can be used for water monitoring. The aim of WAT02 is to manage and encourage reductions in water consumption. A pulsed water metre is required on all Water mains and on the supply to any building using more than 10% of the total water consumption.



Breem Water Leak Detection

Will the unit Meet Breem Wat03 requirements?

The system has been designed to meet WAT03. requirements and will raise an alarm when the water flow exceeds a pre-set maximum for a preset period of time. The alarm unit can identify different flow rates by programming high and Low Flow rates over different periods time. The unit is fully programmable to suit the buildings water consumption, with the ability to avoid false alarms when higher volumes of water are needed.

Installation

The alarm unit is wall mounted and requires a 230VAC 5amp fused supply. The unit needs to be linked to the pulsed water meters by a 0.8mm² conductor 2 core screened cable up to a maximum 400 meters away. Pulsed water meters usually have BSP thread connections up to 50mm, above 50mm PN16 flanged connections are used. If shutoff valves are required they should be installed just after the water meter(s). Additional connections can be provided to a Building Management System, Remote alarms or Texted Messaging Systems for the following;

- 1) High/Low Flow Alarm
- 2) Water Meter output pulses to remote water flow counter, PLC or BMS
- 3) Remote 12VDC mutable Sounder Beacon
- 4) Remote SMS text messaging system

Credits available under Breem Wat03

For One credit the following is required to demonstrate compliance

1. A leak detection system which is capable of detecting a major water leak on the mains water supply within the building and between the building and the utilities water meter.
2. The leak detection system is:
 - a. Audible when activated
 - b. Activated when the flow of water passing through the water meter/data logger is at a flow rate above a pre-set maximum for a pre-set period of time
 - c. Able to identify different flow and therefore leakage rates, e.g. continuous, high and/or low level, over set time periods
 - d. Programmable to suit the owner/occupiers' water consumption criteria
 - e. Where applicable, designed to avoid false alarms caused by normal operation of

For an additional one credit the following is required to demonstrate compliance

3. One of the following types of flow control device is fitted to each WC area/facility to ensure water is supplied only when needed (and therefore prevent minor water leaks):
 - a. A time controller i.e. an automatic time switch device to switch off the water supply after a predetermined interval
 - b. A programmed time controller i.e. an automatic time switch device to switch water on and/or off at predetermined times.
 - c. A volume controller i.e. an automatic control device to turn off the water supply once the maximum preset volume is reached.
 - d. A presence detector and controller i.e. an automatic device detecting occupancy or movement in an area to switch water on and turn it off when the presence is removed.
 - e. A central control unit i.e. a dedicated computer-based control unit for an overall managed water control system, utilising some or all of the types of control elements listed above



Breem Water Leak Detection

Internal Clock

The internal clock can be adjusted from internal push buttons and has both leap year and British summer time compensation.

Maximum size of water meter

Any size of water meter can be used providing it has a 1:1, 1:10 or 1:100 pulsed output.



Specification

Housing type	ABS Plastic, Light grey
IP Rating	IP60
Mounting	Wall, or surface
Size	180mm wide x 130mm high x 60mm deep
Input power	50 Hz single phase 230VAC +/- 10%
Burden	< 12VA
Power termination	Internal 3 way terminal block
Voltage to pulsed water Meter	12 VAC
Water meter Pulse interface	Volt free Relay contact or solid state relay
Selectable Pulse Rates	1, 10 or 100 litres per pulse
Maximum input pulses per second	12
High / Low Flow Alarm Output	Volt free changeover contacts rated at 1A, 30VDC
Meter shutdown Valve Control	230VAC supply to open shutdown valve; removed in Alarm
LCD Display	2 x line 4mm high, 16 character back lit in white LED light
Time Clock	Adjustable real time clock with battery backup
Access	Top, bottom , back or side