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Water Leak Detection System Type BLDA1-2 For internal use to BREEAM Wat 02 & 03 for New Buildings & WAT 01, 07 & 08 for Existing.



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

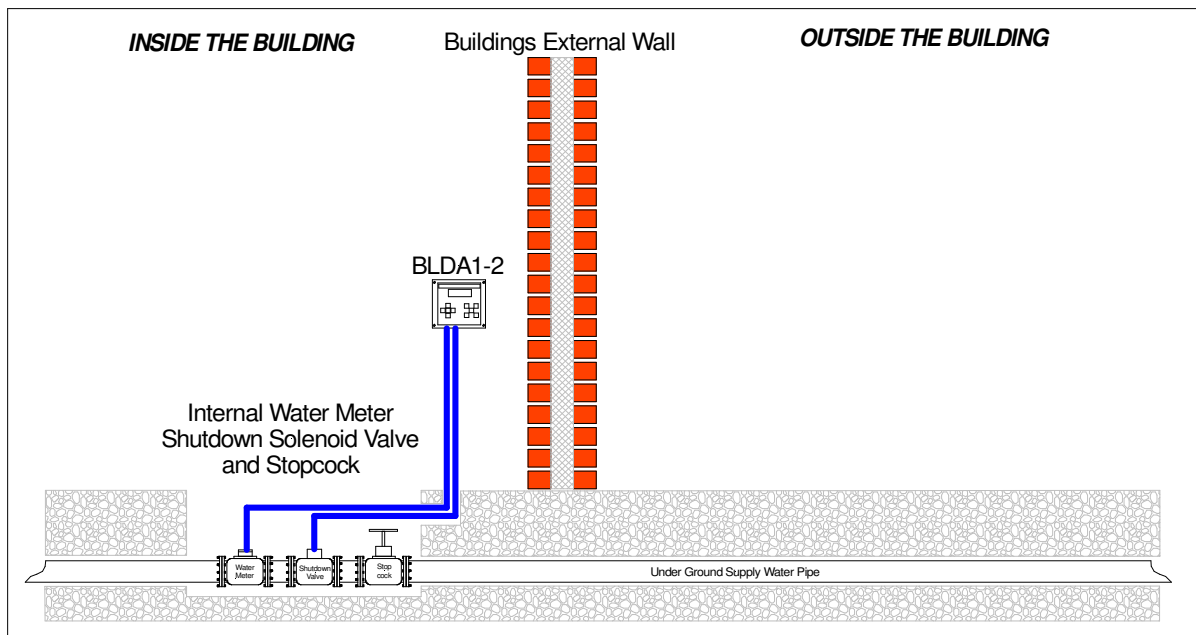
- Remote mutable Sounder Beacon
- SMS text messaging/Email unit



Bream Water Leak Detection

Principle of Operation

Designed to monitor the water flow within a building or area, the BLDA1-2 can be used to monitor the volume of water being consumed, look for water leaks in the entire building, individual apartments or areas such as toilets blocks or kitchens. 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 or main cold water pipe feeding an apartment or area. 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 of 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 patten. 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 Bream, credits are awarded where a water leak detection system or water consumption monitoring 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 Water Leak Detection

How will the BLDA1-2 meet Breem requirements ?

Under BREEAM Technical Manual version 6.0.0 for existing (In-Use) buildings and Technical Manual version 6.0.1 for new constructions, credits can be awarded provided certain water monitoring and control equipment are provided.

Existing (In-Use) buildings.

The BLDA1-2 meets the requirements of and conforms to BREEAM WAT 01, water monitoring, WAT 07, water leak detection and WAT 08, water leak prevention.

New Construction buildings.

The BLDA1-2 meets the requirements of and conforms to BREEAM WAT 02, water monitoring and WAT 03, water leak detection.

The BLDA1-2 complies to WAT 01 (In-Use) and WAT 02 (new build) by using a water meter with a pulsed output to record the volume of water passing through it during high and low usage periods i.e. high flow period, 7.00am to 8.00pm, low flow period 8.00pm to 7.00am. Fully adjustable independent high / low flow period setting for each day of the week are provided giving user flexibility and maximum control. Not only does the unit record the total usage of water as an on going tally, but give the maximum volume of water during the two flow periods. If required, the unit can also provide a water meter pulse output for use by BMS or other monitoring systems. The system conforms with WAT 03 (new build) and WAT 07 & WAT 08 (In-Use) by setting limits on the volume of water that can flow during the high and low flow periods i.e. high flow period, 7.00am to 8.00pm, low flow period 8.00pm to 7.00am. Once the volume limit is exceeded the unit will instigate an audible and visual warning and advise the BMS by closing its volt free alarm contact. In addition a water shutoff device can be provided, this being a ball valve to give maximum water flow when open, will turn off the supply when the system detects a flow of water that exceeds its adjustable maximum flow settings. In addition to the maximum flow, the BLDA1-2 monitors water flow for constant, unbroken flow of water. If the unit detects that water has flowed for a period of time without a break i.e. a leak, the unit will setup an alarm and turn off the water supply via the valve.

Installation

The alarm unit is wall mounted and requires a 230VAC 5amp fused supply. The alarm unit should be linked to the pulsed water meters by a 1mm² 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 meters. Additional connections can be provided to a Building Management System, Remote alarms or Texted Messaging Systems for the following;

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



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

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|---------------------------------|---|
| 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 |