



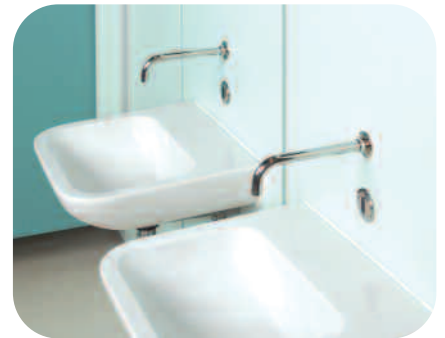
THORNE AND DERRICK UK – LEAK DETECTION  
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# sensazone



the innovative solution to  
washroom water wastage



- Infrared sensor controlled washroom water shut-off unit
- Achieves BREEAM Wat 4 credit
- Eliminate the risk of washroom flooding due to accidental or deliberate vandalism
- Eliminate risk of water wastage due to defective washroom outlets
- Surface mounted; suitable for any ceiling type
- Hygiene flush
- Low voltage; low energy usage



**sensazone** is an intelligent PIR sensor which controls the water flow to the washroom with solenoid valves.

The sensor is ideally located at the entrance to the washroom. The solenoid valve(s) should be located at the entry point of the water supply to the washroom or as close as practically possible to the entry point to suit the pipe layout.



## how it works

On detecting movement the sensor sends a pulse to open the solenoid valve(s). After the pre-set run-on time (15 or 30 mins) the sensor will send a second pulse to close the valves.

When activated the LED will flash green once every 3 seconds and continues to do so for the full run-on duration. This indicates the valves are open.

The sensor will continue to search for occupancy while the valve(s) are open: if a user is detected, the timers are reset to zero.

If there has been no use of the washroom for 12 hours, **sensazone** will automatically complete a hygiene rinse function / flush cycle. This is repeated every 12 hours.



## product description

- When **sensazone** detects a user entering the washroom it activates up to three (for hot, cold and rain/grey water supplies) solenoid valves to allow water to flow freely into the washroom.
- If no motion has been detected for a user-configurable time of either 15 or 30 minutes, the valve will close the water supply to the area until further movement is detected.
- **sensazone** is designed to control up to three 2W 2/2 bi-stable (latching) solenoid valves per washroom area.
- For control of water flow to more than one washroom area, the Cistermiser Washroom Control should be used rather than the **sensazone**. For further details, please contact Cistermiser directly or consult our website.



## eliminates the costs and waste associated with defective washroom outlets or vandalism

If a washroom outlet is defective or tampered with, water from the mains or central supply can pass uncontrolled through the outlet valves such as taps or WCs. This waste of water can often pass undetected and cause considerable costs (see table). As the [sensazone](#) controls the flow of water into the washroom area at the entry point, the water is prevented from passing uncontrolled through the damaged outlet, which eliminates the risk of water wastage or flooding during vacant periods.

Water Loss	Drip	Dribble	Stream	Fully Open
Pressure (Bar)	2	2	2	2
Litres per week	889	1,512	8,643	84,672
Litres per year	46,228	78,624	449,436	4,402,944
Cost per week (£)*	2.07	3.52	20.13	197.28
Cost per year (£)*	107.71	183.19	1,047.18	10,258.86

The calculations above are based on a defective WC cistern valve which is allowing water to pass through a WC at different rates during periods of non-use. Cistermiser has quantified these varying rates and calculated the potential water and financial losses.

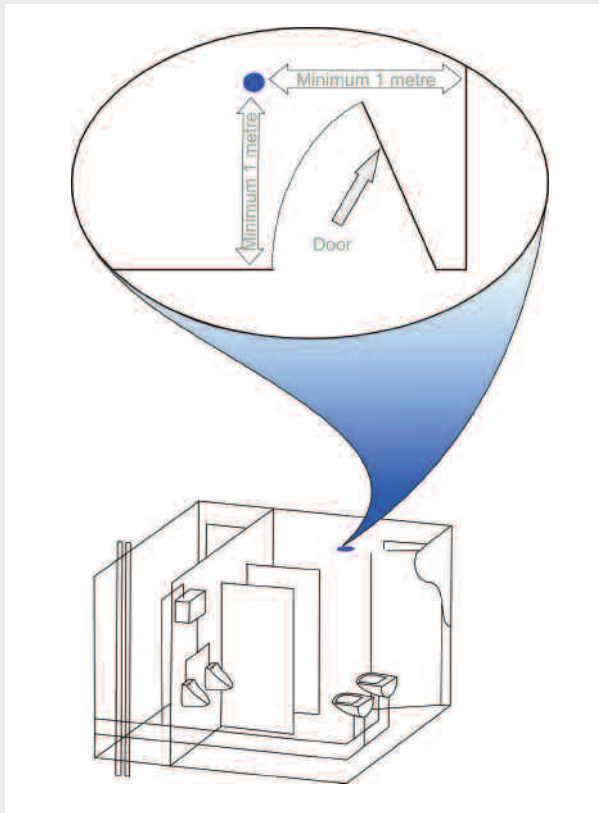
\* Based on average water costs of 2.33 per m<sup>3</sup> (Ofwat 2008-2009)



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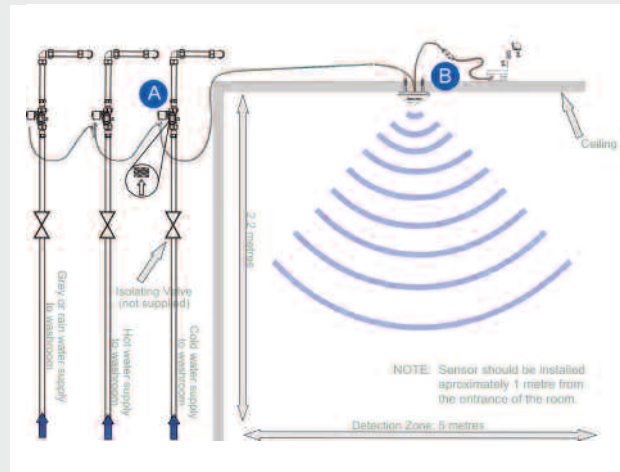


## installation options



- The **sensazone** sensor should be located at a minimum distance of 1 metre from the entrance to the washroom area.
- The sensitivity of **sensazone** can be increased to ensure that all users of the washroom area are detected. This feature is particularly applicable in an environment such as a primary school where the presence of the users such as young children, may be more difficult to detect with the normal sensitivity setting. In most applications the default setting offers effective detection.
- The **sensazone** can be configured either manually or via the hand held remote control Infrared Configuration Unit (ICU) which is available as an optional extra.

## valve & sensor installation



### A valve installation

The valve should be installed on the water supply leading into the washroom (hot, cold, rain or grey) or as close as practically possible to the entry point to suit the pipe layout.

### B sensor installation

The **sensazone** can be installed on both false and solid ceilings. The following is a brief explanation of the installation options. Comprehensive set-by-step instructions are available from Cisterniser and come with the product.

#### false ceiling

The base plate is secured directly onto the surface of the ceiling. The wiring passes through a pre-drilled opening in the surface into the ceiling void. The sensor unit then attaches directly to the base plate.

#### solid ceiling

The base plate is secured directly to the solid surface. The wires should be routed through the 'wire exits' and run across the ceiling surface as required. The sensor unit then attaches directly to the base plate.

## zonal control of washroom utilities

### BREEAM Wat 4 compliance

#### Proximity detection shut off of water supplies

The M & E contractor shall supply and install a water control system to provide control of the water supply to the urinals and WCs to provide compliance with the BREEAM Assessment under the water category:

Credit ref: Wat4. Where evidence is provided to demonstrate that proximity detection shut off is provided to the water supply to all urinals and WCs.

The system is to consist of a PIR operated control unit and solenoid valve(s) of the appropriate size to suit the installation pipe work and is to provide a hygiene flush function where applicable.

The unit should be the Cisterniser Sensazone as manufactured by: Cisterniser Limited  
Unit 1, Woodley Park Estate, 59 – 69 Reading Road,  
Woodley, Reading, RG5 3AN Tel: 0118 969 1611