

# LEAKSTOPPER 2 SPECIFICATION

## Multi Zone Water Leak Detection Alarm

### At a glance:

#### Can be used with:

- Sensor Tape
  - Sensor Probes
  - Sensor Pads
  - In-line sensors
  - Temperature Sensors
- or a combination of these.

Audio and visual alarm as soon as a water leak occurs.

Battery backup as standard with 20 hour stand by.

2 x volt free relays for switching external devices and connecting to a BMS.

Line fault monitoring to ensure integrity of the wiring and sensors remains sound.

Ideal for use in commercial, retail and industrial environments.

Mute button to silence the sounder during an alarm.

The LeakStopper 2 alarm detects water leaks and instantly triggers an audible and visual output to warn that a problem has occurred. It is capable of monitoring two areas simultaneously.(more than 2 zones use the LeakStopper Multizone or the LeakMonitor Alarm available from Envirotech Alarms). If any of the two areas goes into alarm, the LeakStopper 2 can indicate which zone has the leak. In breaking down larger areas or multiple rooms into zones, the location of any leaks can be quickly identified and the problem rectified. As well as detecting leaks, there is also a line fault monitoring feature used to detect cable connection issues.



The LeakStopper 2 alarm can also be used to detect other elements in an environment such as temperature. The LeakStopper 2 alarm panel is used with the Comms Room Plus environmental alarm package. This offers water leak detection and over temperature monitoring for smaller Comms rooms and Server rooms (up to approximately 5m x 5m).

### LEAKSTOPPER 2 SPECIFICATION

Multizone Alarm Panel	Zones: 2
Input Voltage	230VAC (5W)
Outputs	3 x common alarm volt free relays + individual zone relays
IP Rating	65
Maximum Coverage per Zone	100m (combined with connection cable)
Connection Cable Rating (to sensors)	4 core 0.22mm <sup>2</sup> conductor
Valve Compatibility	12VDC and 230VAC Actuated Ball
Battery Backup (included as standard)	20 hours standby mode

Housing Material:  
Dimensions (2 zones):  
Ambient Range:  
Battery Charge voltage:  
Battery run time standby:  
Country of Origin:

The housing is grey ABS with hinged lid.  
235mm x 190mm x 105mm  
-10 to +50deg C, 0-90% RH condensing  
3.6VDC float charge sealed lead.  
20 hours @ full charge  
U.K.

# LEAKSTOPPER 2 SPECIFICATION

## Multi Zone Water Leak Detection Alarm

### Detecting Water:

Water (unless purified) contains contaminants such as ions and salts and it's these within the water that are conductive. The sensors (conductors) used for leak detection are separated by a carrier and the water acts as a path for a very low electrical signal to pass from one to the other, this action triggers the alarm.

### Technical Specification:

<b>Supply Voltage:</b>	Self sensing 120VAC to 240VAC 40 - 60Hz +/- 15% SMPSU
<b>Supply Current:</b>	3A max
<b>Current burden on standby:</b>	35 Watts @ 230Vac +/-15%
<b>Alarm Relay:</b>	DPCO volt free contact
<b>Contact rating:</b>	2A@250Vac resistive
<b>Fault Relay:</b>	SPCO volt free contact 1A@50Vac resistive (signal only NOT MAINS VOLTAGE)
<b>Power Fault Relay:</b>	SPCO volt free contact
<b>Contact rating:</b>	2A@250Vac resistive
<b>PER ZONE Alarm Relay:</b>	DPCO volt free contact
<b>Contact rating:</b>	2A@250Vac resistive
<b>Each Sensors Inputs:</b>	One set of terminals terminated with a signal diode
<b>Sensor Types:</b>	Sensor Cable, Probe, Pad, In-line, Intelli-Probe, Temperature Sensor
<b>Maximum Cable Length:</b>	100m combined link connector cable to sensor cable
<b>Alarm LED :</b>	3mm Flashing Red
<b>Fault/Healthy:</b>	LED: 3mm TRI colour. Green zone healthy & Red zone fault
<b>Alarm Hysteresis:</b>	Detects between 3K ohms & 20K ohms dependant on the sensitivity adjustment potentiometer
<b>Audible alarm output:</b>	80db@10cm continuous tone
<b>Electrical Connections:</b>	All un-pluggable terminals sized 0.5-2.5mm <sup>2</sup> cable

Installation:

**Mounting:** The LeakStopper 2 alarm panel has been designed to be surface mounted and is fixed to a wall using appropriate screws and wall fixings. Cable entry can be rear, bottom, top or side entry using appropriate cable glands.

**Electrical Supply:** A 2 amp fused spur is required adjacent to the panel in order to power it.

**Sensitivity adjustment:** Less sensitivity may be needed on longer cable runs, each zone has independent adjustment.

**Testing:** Wet test - this is achieved using a wet cloth placed onto the sensor tape/probe/pad to simulate a water leak (note: the sensor will need to dry before alarm will reset). Dry test - achieved using a conductive material such as silver cooking foil wrapped around the tape/probe/pad.

### Main Features:

Visual alarm display on front of the panel for each zone

Battery backup as standard

Line fault monitoring

100m of cable (combined connection and sensor)

Adjustable sensitivity

Mute button

Connection to BMS

Connection for valves via relay

Inbuilt audible alarm output

Auto resets after leak has been dried out

## Applications:

Under raised floors

In data centres

Comms rooms

Plant rooms

Tea points

Kitchen areas

Coffee Stations

Under pipes (a braided version is available for this)

Behind splash panels in toilet areas

Pub Cellars

Basements



Start of Line Junction Box



Self Adhesive Floor Clip

## Sensor Tape

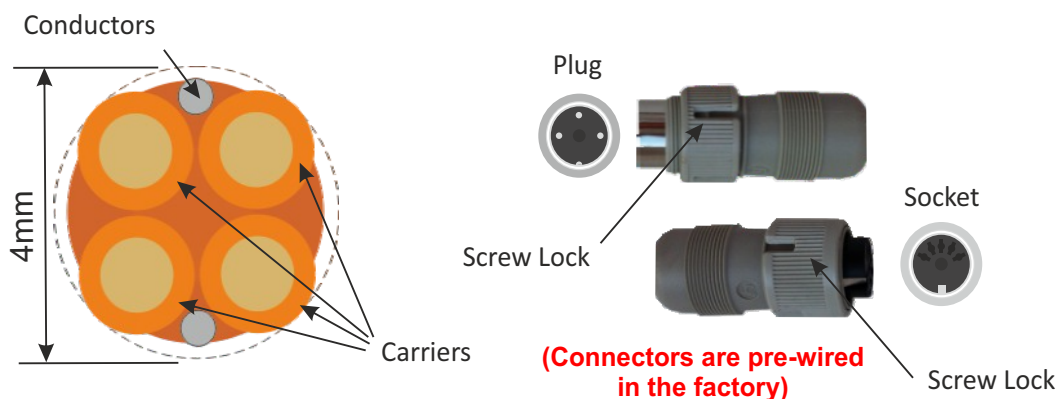
The sensor tape used with the LeakStopper 2 water leak detection alarm has been specifically designed to detect the presence of water at any point along its' entire length.



## Specification:

<b>Category Type:</b>	4C Sensor Cable Orange
<b>Conductor Material:</b>	Stainless steel wire
<b>Conductor Diameter:</b>	0.40mm x 2
<b>Insulation Material:</b>	PVC
<b>Insulation Diameter:</b>	1.8mm(+/-0.10mm) x 4 twisted
<b>Compliant:</b>	RoHS2 (2011/65/EU)
<b>Temperature rating:</b>	-20°C to +80°C
<b>Voltage rating:</b>	5Volts @ 10 Milliamps

## Cross section:



## Installation Notes::

Sensor tape can be laid directly on the floor or strapped under pipework (braided sensor tape is required under pipes). A specific length of sensor tape can be used to cover the area requiring water leak detection. Lengths up to 100m are available (this is combined with the length of the connection cable). The connection cable has a plus and minus wire that connects to a terminal block in the alarm panel. The correct length to get from the panel to the area requiring water leak detection is cut and the opposite end terminates in a special "Start of Line" junction box. When installing the sensor tape on a floor, self adhesive floor clips should be used to hold it in place.

# Sensors

## Sensor Probe

### Probe Overview:

The sensor probe is a height adjustable water leak detection sensor for use in areas susceptible to leaks. It's contained in a rigid plastic housing to offer protection against possible damage. The floor brackets allow for vertical adjustment of the sensor height from the floor. This is particularly useful if the probes are used in an environment where a small amount of liquid is permissible due to a manufacturing or cleaning process.



### Applications:

Plantrooms

Cleaners cupboards

Basements

Under manifolds

Inside water meter cupboards

### Probe Specification:

#### Enclosure:

High impact ABS plastic, 2.5mm thick, lid and base incorporates tongue and groove sealing system with neoprene gasket. Lid fixing screws are M4 stainless steel.

**Enclosure dimensions:** 80mm x 80mm x 55mm

**Enclosure rating:** IP65 and NEMA4 (dust and hose proof)

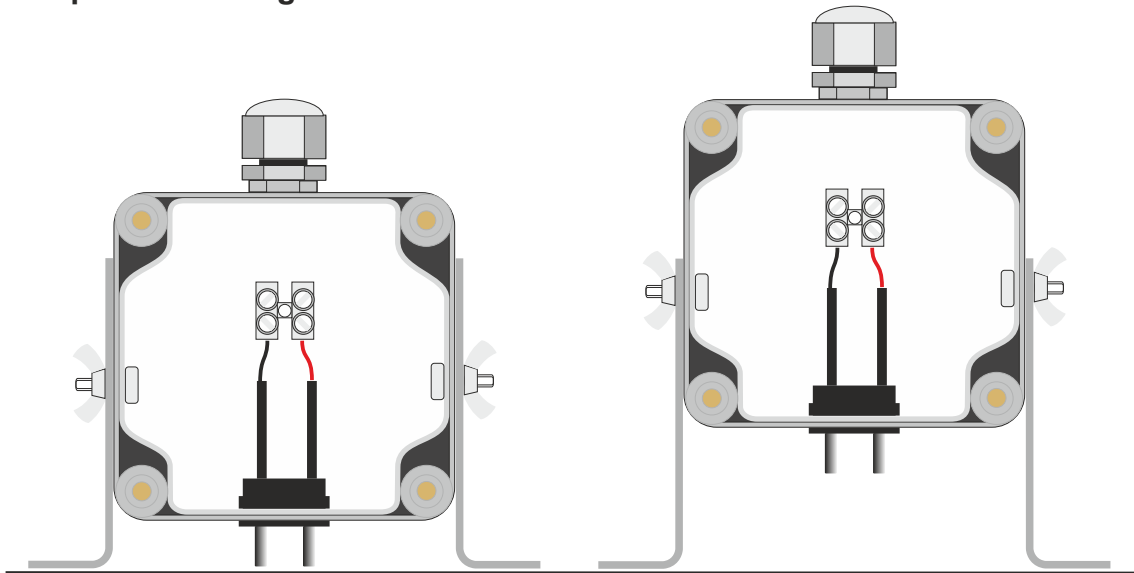
**Height Adjustment:** 0mm to 25mm

**Probe Material:** Stainless steel

**Probe Diameter:** 3mm

**Voltage at probe:** 5 volts @ 10 micro amps

**Temperature rating:** -10°C to +40°C



Height adjusted to 0mm

Height adjusted to 25mm

### Installation Notes:

Position the sensor probe on the floor under the area where a potential water leak may occur. Screw the two floor brackets to the floor using appropriate fixings. Adjust the height of the probes to the desired level and tighten the locking nuts on each side to secure.

## Applications:

Comms Rooms

Server Rooms

Drip Trays

FCU overflow trays

### Sensor Pad Overview:

The sensor pad is ideal for using in drip trays that have been installed under areas vulnerable to water leaks or equipment where water could collect and cause damage if left unchecked. Typically used where air cooling is fundamental to keeping an environments stable such as data centres or comms rooms.

This low profile sensor can be simply placed face down in the drip tray under an AHU unit.

A number of pads can be connected in series to allow several drip trays to be monitored by the LeakStopper 2 alarm panel.

### Product Specification:

<b>Enclosure:</b>	ABS
<b>Enclosure dimensions:</b>	55mm x 55mm x 40mm
<b>Pad Material:</b>	Tinned Copper
<b>Pad Dimensions:</b>	55mm x 55mm
<b>Voltage at probe:</b>	5 volts @ 10 micro amps
<b>Temperature rating:</b>	-10°C to +40°C



### Typical Installation:



### Installation Notes::

The pad sensor is positioned with the printed circuit facing down onto the surface. There are 4 small screws (one in each corner) that hold the printed circuit into the housing. These screws need to be removed to gain access to the connection block when installing.

# Sensors

The in-line tee sensor has been designed to go into the over flow pipes on break tanks, toilet cistern and header tanks. The sensor is located inside the tee piece and gets installed on the overflow pipe with the sensor at the bottom. Any water that travels down the pipe and into the tee sensor will make contact with the conductors of the sensor and set off the alarm.

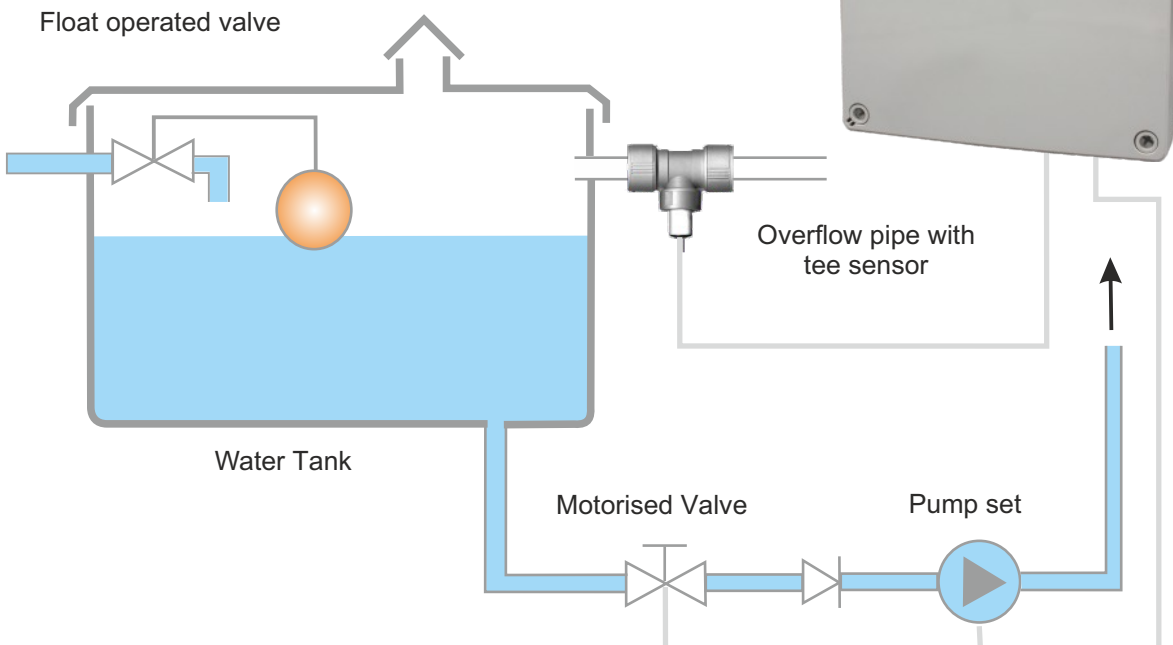


**Applications:**  
Water tanks  
Break tanks  
Header tanks  
Fish tanks  
Toilet cisterns

## Product Specification:

<b>Tee Piece:</b>	Speed-fit plumbing fitting
<b>Tee Piece Sizes:</b>	15mm, 22mm, 28mm (other sizes are available)
<b>Tee Piece Materials:</b>	Plastic or Brass
<b>Probe Material:</b>	Stainless steel
<b>Probe Diameter:</b>	3mm
<b>Voltage at probe:</b>	5 volts @ 10 micro amps
<b>Temperature rating:</b>	-10°C to +40°C

## Typical Installation:



## Installation Notes::

The inline tee sensor needs to be installed with the probe part at the bottom (this is the part with the wire coming out of it). The in-line tee sensor can be used in conjunction with other types of sensors (sensor tape, probe, pad) when wired in series back to the LeakStopper alarm panel.

## SMS TEXT DIALLER

### SUMMARY OF FEATURES

- Easy to install.
- Simple programming via text messaging.
- 4 inputs available.
- Up to 5 telephone number can be programmed.
- Separate text messages can be set up for each channel.
- Uses the same technology as mobile phones.
- Variety of different networks available offering good coverage across the UK.
- IP65 rated enclosure.
- 2 x volt free relays for connecting external devices.

The SMS Autodialer acts like a mobile phone sending a bespoke text message to as many as 5 different telephones. It has four inputs available that allow different devices to be linked to the dialler and a different message set for each.

The SMS Autodialer uses a standard SIM card inserted into the PCB and most larger network providers will work perfectly well (please check the signal strength and network availability for the area where the text dialler will be installed). Setting up the system is simply done by texting simple commands to the unit. Contract and PAYG SIMs can both be used, when using a PAYG the unit can be set up to send an automatic text every 28 days to prevent the SIM from expiring.

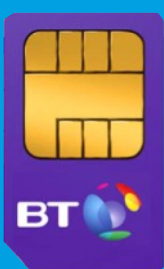
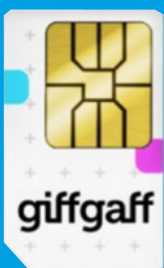
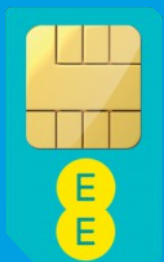
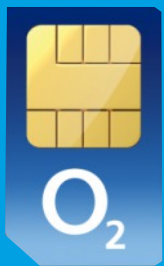
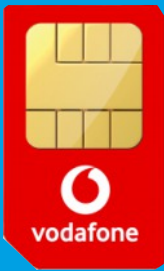
Optional external beacons and beacon sounders are available.



### PRODUCT SPECIFICATION

Dimensions of cabinet:  
W160mm x H220mm x D120mm

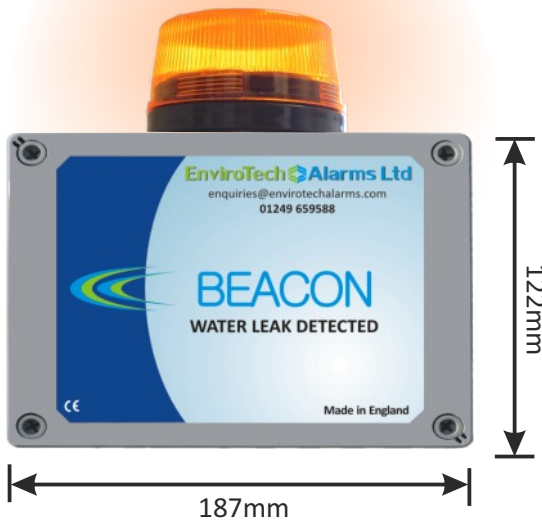
Sim frequencies	850/900/1800/1900MHz
Max inputs	4
Max programmable numbers	5
Connections	Positive/Negative
Input Voltage	12VDC or 230VAC
IP Rating	65



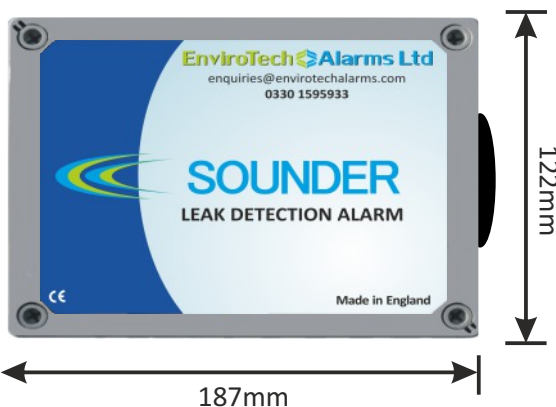
## Beacon/Sounders Panels Beacon or Sounder Panels



The beacon/sounder alarm can be used when the local audible/visual output on the alarm panel may not be seen or heard



The beacon only alarm can be used when a loud noise would interfere with people or a processes.



Very bright LED beacon (visible for 30m plus), 102 dB sounder, No local power required as power is taken directly from the master panel. Automatically resets as soon as the master panel resets.

Very bright and loud, the addition of an external panel will ensure you never miss being alerted to a leak.

A sensible addition to any leak detection system, especially if the main alarm panel is situated in an area where it may not be heard or is difficult to access.

Installation is easy with power being taken directly out of the main alarm panel. A simple 2 core cable is all that's required to connect up to the panel.

### PRODUCT SPECIFICATION

Beacon	Super Bright LED
Sounder	102 dB @ 1m
Dimensions (mm)	187 x 122 x 80
Input Voltage	12VDC (selv) 50mA
Temperature Range	-18°C to 50°C
Connection Cable	2 core 0.2mm <sup>2</sup>
IP Rating	55

### Key Features:

102 dB sounder

Super bright beacon

Ideal for otherwise noisy areas

Powered by the main alarm panel

Auto resets once leak has been stopped

Ideal for positioning outside of an area where the main alarm panel has been installed and access is limited

Beacon often used outside of Comms Rooms and Server Rooms



## ECHO REPEATER

### Key Features:

40 dB sounder

5mm flashing red light

Handy “Mute” button to silence the repeater panel

Powered directly from the main alarm panel

Auto resets once leak has been stopped

Ideal for use in areas where a louder beacon/sounder would be too intrusive

Indicates that leak detection system is healthy when green light is showing

Beacon	LED
Sounder	40 dB @ 10cm
Input Voltage	12VDC (selv) 50mA
Operating	-18°C to 50°C
Connection Cable	2 core 0.2mm <sup>2</sup>
IP Rating	65



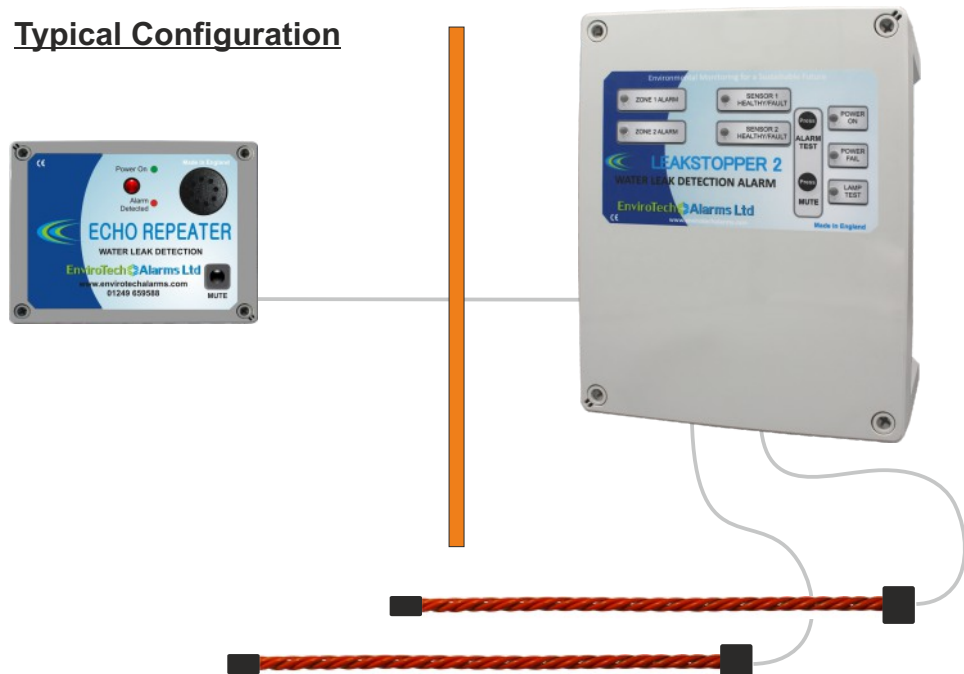
The Echo Repeater mimics the alarm outputs from any of the EnviroTech alarm panels. It can be used in areas away from where the main panel has been installed such as receptions or security stations.

The panel uses a 12VDC supply feed from the master panel eliminating the need for a separate local fused spur. The Echo Repeater has been designed to be a simple plug and play device.

The LeakStopper 2 alarm panel has a dedicated terminal that connects to the Echo Repeater. When the main panel detects a leak or a high temperature, a signal is sent and the Echo Repeater also sounds an alarm and the LED turns from green (healthy) to red.

This alerts that an alarm has occurred, the sounder can be silenced if required by pressing the “Mute” button.

### Typical Configuration



**ACTUATED BALL VALVE**  
**1/2"–2"**  
**STANDARD+FAILSAFE**  
**2WAYDIRECT**  
**0–10Bar**

*Media: air – water – gas – liquid*  
*Pressure range: 0 to 10 Bar max*  
*Media temperature: -15°C +100°C max*  
*Ambient temperature: -15°C to +50°C*  
*Media viscosity: 500 centistokes max*  
*Mounting: Any position*  
*Open time: 5s    Close time: 5s*  
*Voltage: 240vac (50Hz)*  
*Power consumption: 5 Watts (moving)*  
*Enclosure: IP67*  
*Connection: 3 wire control (0.5m lead)*  
*Duty Cycles: 100,000*  
*Seals: PTFE*



## Key Features:

**230VAC**

**Available in 1/2" - 3/4" - 1" - 1 1/4" - 1 1/2" - 2"**

**Full bore diameter**

**Standard BSP fittings**

**Not affected by low water pressure**

**Capable of working with water pressures up to 10 Bar**

**Operates with water temperatures of between -15C to +100C**

**Can be mounted in any position**

BSP	D (MM)	L (MM)	H (MM)	KG
1/2"	15	63	100	0.4
3/4"	20	72	107	0.5
1"	25	81	119	0.6

*Specification for larger size valves available on request*

Port	Orifice (MM)	Torque NM	Pressure Rating (Bar)		Sec Max		Voltage
			Min	Max	Open	Close	
BSP	(MM)	NM	Min	Max	Open	Close	240
1/2"	15	2	0	10	5	5	AC
3/4"	20	2	0	10	5	5	AC
1"	25	2	0	10	5	5	AC

Compact electric actuated ball valve with visual position indicator, with failsafe and power close, Manual over ride and position feed back open and closed switches. The ABVM optimised design is IP67 weather proof, Multi voltage, multi frequency control, 5 Watt low power, 5 second quick acting fully open or closed, metal gearing giving 100% duty rating for over 100,000 cycles. Fitted as standard to a 304 stainless steel full flow 2 way ball valve, full bore, Pressure 0 to 10 Bar (static pressure tested to 35 Bar), Temperature -15C to +100C, Seals PTFE. All units are 100% function leak and pressure tested. The Actuated ball valve multi voltage electric actuator can accept any AC voltage from 110v to 240v. This low cost motorised ball valve is ideal for hot or cold water, air, oil, vacuum, most other compatible fluids and gases.

*Note: Alternative supply voltage available 12v to 24v (24v will require an interface to operate)*