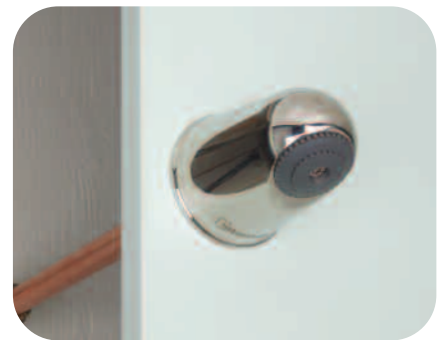
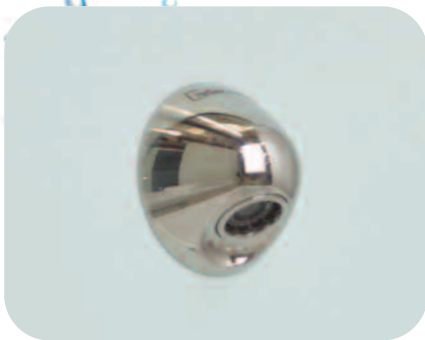


av range

touch activated washroom water control
 with no moving parts



vandal-resistant touch controlled
 water delivery to washrooms



- Programmable (adjustable) flow duration
- AISI 316L stainless steel for maximum vandal protection
- Ligature-resistant outlet heads and touch button
- Low voltage operation from power supply with battery back-up
- Robust piezo touch button
- 12 hour hygiene rinse option
- Anti-flood feature
- Master control remote disable function

Cistermiser's **av range** is a specialist vandal-resistant range of touch-activated washroom controls for use in high risk or demanding public environments such as prisons, secure hospitals, schools and sports facilities.



how it works

The user interface is a stainless steel encased piezo touch button which is fixed flush with the mounting surface. When touched, the button causes an electronically operated valve to open and allow water to flow from a hand basin spout or shower head or the flushing of a WC or urinal.

The flow duration for each outlet is programmed on installation. If the user touches the button for a second time, within the programmed flow period, water flow is stopped at once.

There are no moving parts within the piezo touch button. The buttons are hard-wired to the AV six channel controller, which controls the outlets. Each unit can control up to six valves and each piezo touch button controls one outlet.



product description

Touch buttons, basin spouts and shower heads are made from robust AISI 316L stainless steel. They come with anti-rotation washers and pins to ensure they cannot be removed or tampered with and used for self-harm or to inflict harm on others. There is a range of specially contoured anti-ligature versions of the shower and basin for use in locations where self-harm is a real concern.

The highly versatile **av range** includes a piezo touch button, three styles of shower head, two styles of wall mounted basin spout, a WC cistern combined flushing and filling (drop and inlet) valve, a direct flushing urinal valve, a six channel controller and a power supply unit.

Touch buttons, shower heads and basin outlets are available in a choice of three tail lengths to accommodate panel/wall thicknesses from 17mm to 330mm. The piezo touch button is supplied with 3 metres of cable to allow maximum flexibility for siting of the valves and control box.

System users only have access to touch buttons, shower heads, basin spouts, urinals and WC bowls. All other system components such as solenoid valves, six channel controllers, WC cisterns and water supply pipes are located in services voids, which are inaccessible to the users.



key features and benefits

Cistermiser's **av range** is easy to install and is designed to offer the highest possible levels of tamper-proof security and remote control whilst, at the same time, saving water and minimising running costs through the use of latching solenoids.

Each channel (terminal fitting) can be programmed to operate differently to other channels or all channels can be programmed with the same operating characteristics (flush duration, hygiene flush etc.).

Each channel has a hygiene rinse facility, which may be programmed to activate water outlets, WC or urinal flush 12 hours after their last use, to minimise Legionella risk and maintain the integrity of waste pipe traps.

Alarms and messages from the six channel controller can be directed to a building management system, if present, or fed directly to visual or audible indicators as necessary.

A remote disable function allows the water supply to be turned off from one central location which offers additional security and further eliminates the risk of flooding.

The system is powered by extra low voltage supplied from the multi-product power supply unit, which can power up to 10 control units and 60 individual **av range** washroom products.

saving water

	Conventional tap	Basin Outlet (1.7 litres per minute)
Litres per minute	8	1.7
Minutes per person per day	5	5
Number of persons	50	50
Days per year	260	260
Water usage per year (ltrs)	520,000	110,500
Water saving per year (ltrs)	-	409,500
Water usage per year (m ³)	520	110.5
Water costs per m ³ (£)	2.33	2.33
Annual water cost (£)	1,211.60	257.47
Annual water saving (£)	-	954.13

minimising running costs

There are two standard solenoid types in simple on/off (2/2) solenoid valves: latching or bi-stable and non-latching or mono-stable. Latching valves typically need a pulse of up to 50 milliseconds to open and a reverse polarity pulse of the same length to close. Non-latching valves must be powered for the entire open time.

A comparison: Assuming solenoids of equal power (2W), for a 10 second open time

- A latching solenoid would use 0.2J of power or 0.056E-6 kWh.
- A non-latching solenoid would use 20J of power or 5.6E-6 kWh, 100 times as much.



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 WWW.HEATTRACING.CO.UK
 WWW.THORNEANDDERRICK.CO.UK
 e-mail: northernsales@thorneandderrick.co.uk



technical information



av six channel controller

Control Classification: Independent
Max Load: 6W 1A (6V DC) EMC test load
Ingress Protection: IP67
Rated Temperature Range: 0 - 40° C
Action Classification: Type 1.Y
Pollution Classification: Degree 1
Normal Battery Backup Life: 5 years under typical usage conditions



piezo touch button

Materials
Button: AISI 316L stainless steel
Tail: CZ 132 DZR Brass
Conduit/Tail length: 48, 180 or 330mm



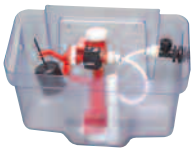
basin outlets

Materials
Head: AISI 316L stainless steel
Tail: CZ 132 DZR Brass
Max Flow Rate: 1.7l/min
Conduit/Tail length: 48, 180 or 330mm



shower outlets

Materials
Head: AISI 316L stainless steel
Tail: CZ 132 DZR Brass
Max Flow Rate: 7l/min
Conduit/Tail length: 48, 180 or 330mm



flush and fill WC valve

Working Pressure: 0.5 - 6 bar
Back Siphonage Protection:
Class 4, Type Double Check Valve



power supply unit

Input: 230V AC
Single 3A Fused Spur required
Output: 6V DC
Powers up to 10 AV Six Channel Controllers

specification wording

The water supply to each cell will be controlled as follows:

av range six channel controller: 1 av range six channel controller per cell for the control of basin, shower and WC. The **av range** six channel controller also to incorporate a programme to enable either the blended hot or cold water supply to operate i.e not both at the same time.

Wash hand basin: **av range** piezo touch button for the blended hot and cold control of the basin, supplied complete with 2 solenoid valves and interconnecting cables for connecting to the av range six channel controller. The basin shall be fitted with anti-ligature outlets and thermostatic mixing valves.

WC: **av range** piezo touch button for flushing the WC complete with flush and fill WC valve and interconnecting cables for connecting to the av range six channel controller.

Showers: **av range** piezo touch button shower control mounted with 'through the wall' fixing and locknut assembly, complete with 1 solenoid valve and interconnecting cables for connecting to the **av range** six channel controller. The shower outlet to be anti-ligature.

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

product codes

available on application