

Infrared Urinal Flush Control Valve

*...the electronic Cistermiser
with PIR sensor*



- Reduces water consumption by up to 80%
- Reduces washroom odours
- Solenoid valve activated with PIR sensor
- Hygiene Flush for periods of non-use
- Ensures compliance with Water Regulations
- Can be concealed to reduce the risk of vandalism
- Mains or battery powered option in the same box - no external transformer required
- Pipe, wall or ceiling mounted sensor: exposed, or flush with ceiling or wall
- On DEFRA's Water Technology List; cost is tax-deductible

Installing the Infrared Cistermiser (IRC)

The IRC urinal flush control consists of two primary elements: a solenoid valve with compression fittings and the sensor module.

The solenoid assembly is plumbed in on the water supply to the urinal cistern. The connection to the sensor is made either by directly mounting the Passive Infrared (PIR) sensor module onto the solenoid or using the 'floating socket' supplied for a remote mounting.

It is not necessary to adjust the sensor; the operating sequence is pre-programmed. It is possible to adjust the flow rate of the water into the cistern for maximum water economy.

When fitting the brass solenoid assembly to the pipe the flow direction should be noted. If necessary the solenoid can be turned through 180° to give access to the pin connections. The solenoid is supplied with an interchangeable valve seat which is used to increase the flow on low pressure supplies.

The sensor module can be mounted on the unit itself or remotely on the wall or ceiling requiring a wire connection. If mounted remotely the sensor module may be surface mounted using a standard pattress box (not supplied) or recessed into a suspended ceiling using the 'ceiling mounting kit' (CMK) which is supplied separately. A warning light on the front of the sensor module indicates low power if the unit is fitted with batteries and a manual push-button provides a self-test sequence.

Operating Sequence of the IRC

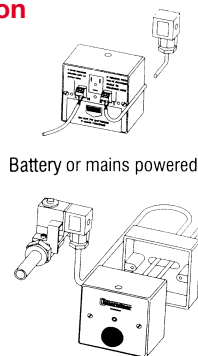
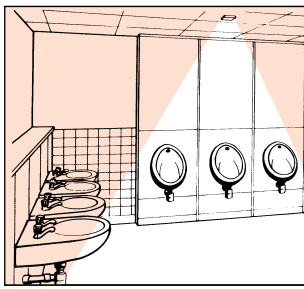
On detection of movement in the washroom a pulse from the sensor opens the normally-closed solenoid valve and water flows to the cistern: at the same time the PIR sensor is switched off.

The initial open period is 25 minutes after which time the power to the PIR sensor is restored. Any occupancy during the next 5 minutes will cause the cycle to repeat. If no occupancy is detected the solenoid valve is closed, shutting off the water supply until the next occupancy is detected. The integrated flow regulator within the valve allows the volume of water passing to the cistern during the 30 minute open period to be adjusted. Generally this should be set so that the cistern flushes once every time the valve is opened. i.e. every 30 minutes during occupation.

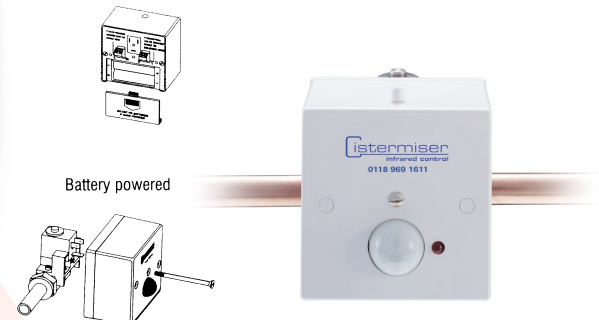
If the sensor detects no occupancy in 12 hours it will automatically open the valve for 30 minutes to allow one flush to rinse the urinals and pipework.

The sequence is designed to maximise battery life, giving approximately 3 years' life from one good quality set of cells depending on washroom use.

Remote Sensor Installation



'On-the-pipe' Sensor Installation



PIR Sensor Unit

Contained within a white moulded ABS case designed to fit directly onto the solenoid valve assembly or a standard 3.25" x 3.25" (83mm x 83mm) pattress box for surface mounting. At the back there is access to the battery compartment and terminals for a 240V mains power supply to the integral and in-built transformer and the 6V DC output to the solenoid.

Dimensions Range

85mm x 85mm x 63.5mm (W x H x D) including the sensor lens
approx 3.5m field of view, 138° horizontal, 125° vertical

Power

Solenoid Voltage

6V DC: nominal 54µA, Peak 750mA, for 50ms

Mains Supply

220V - 240V 50Hz 20mA

Battery supply

4 x 1.5v Alkaline Type LR6

Recommended Batteries

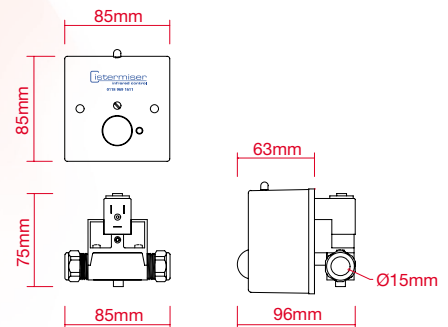
Activair EP918 or Duracell Procell MN 1500 – Cap. 2700mAh

Solenoid Valve

6V latching valve, UK WRAS approved. One valve per sensor.

Water Supply Pressure

0.1- 6 bar (for >6 bar a reducing valve is recommended). Integral, adjustable flow regulator and interchangeable valve seat (see below)



Valve Seat

1.5mm orifice insert

6 bar

Pressure

2.7

1.5mm orifice insert

2 bar

1.6

3.0mm orifice insert

2 bar

3.0

3.0mm orifice insert

0.1 bar

0.9

NB 3.0mm orifice should only be fitted when fed from a tank below 5 metres head.

Min Flow (litres per minute)

0.03

0.01

0.05

no flow



Unit 1 · Woodley Park Estate · 59-69 Reading Rd
Woodley · Reading · Berkshire RG5 3AN

t: +44 (0) 118 969 1611 sales@cistermiser.co.uk
f: +44 (0) 118 944 1426 www.cistermiser.co.uk

