WATERGUARD HOME
TECHNICAL SPECIFICATION

The Waterguard Home system protects your property by timing the water flowing through your pipes. Each time you stop running the water, the time is reset to zero.

The user sets the maximum time of continuous water flow allowed when the property is occupied. This is known as Low Guard and ranges from 1 – 40 minutes. And the same for when the property is unoccupied, known as High Guard which ranges from 0.1 – 5 minutes.

If the maximum time is exceeded on either guard level, the stop valve is automatically activated to shut off the water supply, protecting your property from the damage caused by burst and leaking pies.

Benefits of the Waterguard Home System include:

- An integrated back-up battery which will continue to power the controller and protect the property for many weeks in the event of loss of mains power.
- The controller has an output alarm which can be used to activate a Waterguard SMS unit, which will send a text to a mobile phone when a leak is detected.
- Monitors the continuous flow of water resetting each time the water flow is stopped, for example the user selects the maximum time they wish water to flow before turning off the supply when they are both in and out of the property.
- These two levels of guard, low guard (occupied) allow between 1 to 40 minutes of continuous water flow and high guard (unoccupied) allow between 0.1 to 4 minutes are programmable by the user in order to facilitate individual requirements.
- The simple to use, language free controller can be located conveniently in the kitchen or utility room wall at eye level
- The water can be turned on or off, the guard level switched and the maximum allowable flow times set from the simple to use language free controller
- Automatic guard level switching available when wired to the properties intruder alarm
- Operated on 12 volts DC making it a DIY installation for a competent person
- Backup battery which will continue to run the valve assembly normally for many weeks in the event of power loss

Also available for large residential properties such as a manor house is the Waterguard Home Series 7 System which combines the functionality of the original Waterguard Home System and the technology of the Series 7 range of systems. Rather than the water being timed as it passes through the flow switch it is measured to prevent the predetermined volume of water from being exceeded in either guard levels. This is particularly useful when there are multiple occupants using different parts of the property at the same time.

Technical Information

Home Valve Controller		
	Size	85 x 85 x 42mm
	Power	12VDC
	Back-up Battery	Yes
	Alarm Output	3 Amp
Home Remote Display Controller		
	Size	85 x 85 x 31mm
	Power	1.5Volt Alkaline (2 x AAA)
	Expected Battery life	10 years
	Alarm Output	N/A

Waterguard.

Included in all original Waterguard Home systems is the valve assembly, around 11” long these fit pipe sizes 15mm – 35mm copper and include a polyamide solenoid valve with manual bypass and a Waterguard flow sensor.

Polyamide Valve – Technical Information

Classification		Hydraulic Connections	
Type	Single	**Inlet**	BSP Female Thread
Geometry	180 C	**Outlet**	BSP Female Thread
Working Specifications		**Physical Specifications**	
Working Pressure	0.5 / 10 bar	**Valve Body**	Polyamide 30% fibre glass
Room Temperature	0 / 60 C	**Diaphragm and Gaskets**	NBR (buna)
Fluid Temperature	60 C	**Core**	Stainless Steel
Duty Cycle	ED 100%	**Spring**	Stainless Steel
Flow Direction	Unidirectional	**Assembly**	With screws for inspection
Nominal Diameter	DN 15mm	**Coil**	Watertight – C.E.I IP 55
Control	NC, NO, Latching		
Installation			
In all positions, manual override by solenoid coils rotation			
Electrical Connections			
Electric Connect 1	Male Faston 6.3 x 0.8 mm – IP X0		
Electric Connect 2	Unipolar Cables max 300 mm – IP 55		
Electric Connect 3	Bipolar Cables max 5000 mm – IP 55		

PRESSURE DROP (BAR) AND FLOW RATE (LITRES/MIN)

½” F	Bar	0.10	0.29	0.53	0.90	1.20																								
	Psi	1.45	4.21	7.69	13.05	17.40																								
	L/min	16.7	33.3	50	66.7	83.3																								
¾” F	Bar		0.15	0.21	0.30	0.41	0.60	0.81	1.03																					
	Psi		2.18	3.05	4.35	5.95	8.70	11.75	14.94																					
	L/min		33.3	50	66.7	83.3	100	116.7	133.3																					
1” F	Bar				0.11	0.13	0.16	0.22	0.25	0.32	0.41	0.50	0.59	0.71	0.82	1.01														
	Psi				1.60	1.89	2.32	3.19	3.63	4.54	5.95	7.25	8.56	10.30	11.89	14.65														
	L/min				66.7	83.3	100	116.7	133.3	150	166.7	183.3	200	216.7	233.3	250														
1 ¼” F	Bar			0.10	0.13	0.16	0.20	0.23	0.31	0.35	0.43	0.52	0.62	0.73	0.83	0.94	1.05													
	Psi			1.45	1.89	2.32	2.90	3.34	4.50	5.08	6.24	7.54	8.99	10.59	12.04	13.63	15.23													
	L/min			50	66.7	83.3	100	116.7	133.3	150	166.7	183.3	200	216.7	233.3	250	266.7													
1 ½” F	Bar							0.11	0.13	0.15	0.16	0.21	0.24	0.28	0.33	0.39	0.44	0.52	0.61	0.70	0.74	0.92								
	Psi							1.60	1.89	2.18	2.32	3.05	3.48	4.06	4.79	5.66	6.38	7.54	8.85	10.15	10.73	13.34								
	L/min							116.7	133.3	150	166.7	183.3	200	216.7	233.3	250	266.7	283.3	300	316.7	333.3	366.7								
2” F	Bar							0.1	0.11	0.12	0.13	0.14	0.15	0.16	0.18	0.2	0.21	0.23	0.25	0.27	0.29	0.31	0.34	0.42	0.57	0.61	0.72	0.91		
	Psi							1.45	1.60	1.74	1.89	2.03	2.18	2.32	2.61	2.90	3.05	3.34	3.63	3.92	4.21	4.50	4.93	6.09	8.27	8.85	10.44	13.20		
	L/min							116.7	133.3	150	166.7	183.3	200	216.7	233.3	250	266.7	283.3	300	316.7	333.3	366.7	400	466.7	533.3	550	600	666.7		
	M3/h	1	2	3	4	5	6	7	8	9	10	11	12	13	14	15	16	17	18	19	20	22	24	28	32	33	36	40		
Flow	L/min	16.7	33.3	50	66.7	83.3	100	116.7	133.3	150	166.7	183.3	200	216.7	233.3	250	266.7	283.3	300	316.7	333.3	366.7	400	466.7	533.3	550	600	666.7		
Rate	GPM	4.4	8.8	13.2	17.6	22	26.4	30.8	35.2	39.6	44	48.4	52.8	57.2	61.6	66.1	70.5	74.9	79.3	83.7	88.1	96.9	105.7	123.3	140.9	145.3	158.5	176.1		

Flow Sensor - Technical Information

MATERIAL		MECHANICAL SPECIFICATIONS	
Housing Material	Noryl	**Shock**	50g for 11mS duration
Shuttle Material	Noryl	**Vibration**	35g up to 500Hz
Contact Material	Ruthenium	**Maximum Pressure**	10 bar @ 20
Operating Temperature	-30 to 85 degrees C	**IP**	IP65
Medium	Water	**Horizontal flow rate l/min**	2.24
Housing Colour 22mm	Blue	**Vertical (flow up) flow rate l/min**	2.50
Housing Colour 35mm	Black	**Vertical (flow down) flow rate l/min**	1.79

SWITCHING		CABLE AND MOUNTING	
Switch Action (Reed Switch)	SPST	**Cable Length**	1 x 1.0M double insulated
Max Switch Voltage VDC	200	**Connection Type**	Stripped cables
Max Switch Voltage VAC	250	**Cable Type**	0.5MM2 BS6500 PVC
Max Switching Current Amps	1	**Cable Colour**	Grey outer blue/brown inner
Max Switching Load Watt	40	**Fitting**	¾” or 1 ¼” BSP thread
Operate Mode	N/O, close with flow	**Fitment**	In line
Contact Form	A	**Mounting**	Vertical, flow downwards

IMPORTANT: All information provided, including installations is held to be reliable. Clients should however independently evaluate the suitability of each system to their individual application. Waterguard Services Limited, registered address 2 Oakwell Business Centre, Oakwell View, Barnsley, S71 1HX makes no warranty as to the accuracy of this information, and retracts any liability regarding its use. The only responsibilities of Waterguard Services Limited are those in the Waterguard Services Limited Standard Terms and Conditions of Sale for this product, and in no case will Waterguard Services Limited be liable for any incidental, indirect or consequential damages arising from the sale, resale, use or misuse of the product. Due to continual development specifications are subject to regular change without notice.
©2014 Waterguard Services Limited, All Rights Reserved.