

# Waterguard

## TECHNICAL SPECIFICATION: WATERGUARD SOLO

### Mitigate Risks and Minimise Costs

Designed to protect property owners from the effects of escape of water, the Waterguard Solo is an automatic shut off system that is tamper proof, language free and simple to install, with minimal maintenance.



### WORKING PRINCIPLES

This system protects properties by monitoring water usage from the incoming water mains using a flow sensor that allows continuous water flow for a limited time before the controller suspects a leak and automatically shuts off the water with a solenoid valve.

The Waterguard Solo has one level of guard (maximum time of continuous flow) which is usually set by the installer, landlord or concierge with the controls often located in riser cupboards or basements.

Optional guard levels; 10, 20, 30 or 40 minutes available. The default setting is a maximum of 30 minutes continuous flow before the system will shut off the water supply.

The Solo includes only WRAS approved plumbing components.

### FEATURES AND BENEFITS

- An integrated back-up battery will continue to power the controller for many weeks in the event of a mains power loss.
- Before completely losing power the Solo will close the valve and continue to protect the property.
- Equipped with a manual override to reinstate the water supply away from the controls.
- Output alarm to BMS.
- Simple, language free controls. The water can be both shut off and reinstated using the simple push button controls.
- Automatic maintenance; during the night the Solo will close and then open the valve once to ensure that the valve will operate reliably.
- The Solo benefits from the flexibility of either 12V or 240V.

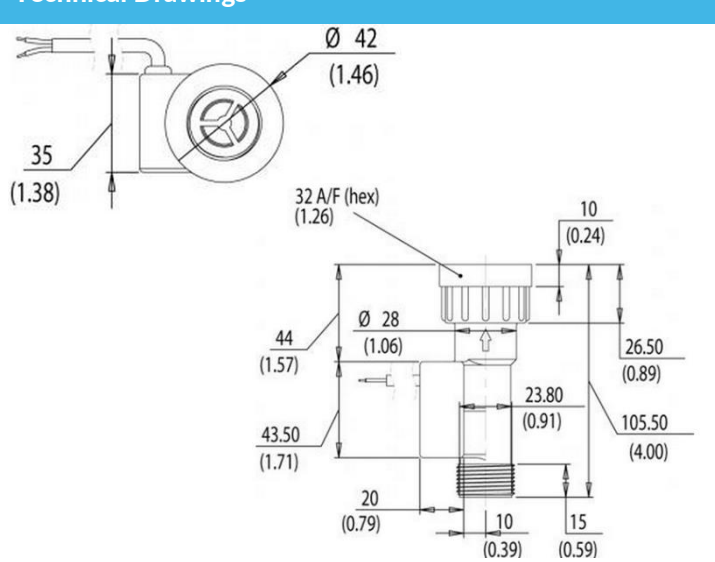
### TECHNICAL DATA

#### Waterguard Solo – WTL Ref No. 5221

|                    |   |                   |  |
|--------------------|---|-------------------|--|
| Size               | 85 x 85 x 42mm  | Backup Battery    | Yes: 3V Lithium  |
| Power              | 12V or 240V   | Alarm Output      | Switching voltage: 48V max 0.1V min  |
| Cable Requirements | 12V: Power adapter supplied<br>240V: Speaker cable, twin or three core flex all suitable. Not supplied. | Valve Common Flow | Solenoid Valve: V & C<br>Flow Sensor: F & C<br>See below for technical data. |

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## Flow Sensor – WRAS Cert No. 1510025

| 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 ¾"           | Blue  | Vertical (flow up) flow rate l/min  | 2.50                  |
| Housing Colour 1 ¼"         | Black                                       | Vertical (flow down) flow rate l/min  | 1.79                  |
| Switching                   |   | Technical Drawings  |                       |
| Switch Action (Reed Switch) | SPST  |  |                       |
| Max Switch Voltage VDC      | 200   |   |                       |
| Max Switch Voltage VAC      | 250   |   |                       |
| Max Switching Current Amps  | 1   |   |                       |
| Max Switching Load Watt     | 40  |   |                       |
| Reed Switch Reliability     | UL File E153493                             |   |                       |
| Operate Mode                | N/O, close with flow                        |   |                       |
| Contact Form                | A   |   |                       |
| Cable & Mounting            |   |   |                       |
| Cable Length                | 1 x 1.0M double insulated                   |   |                       |
| Connection Type             | Stripped cables                             |   |                       |
| Cable Type                  | 0.5MM2 BS6500 PVC                           |   |                       |
| Cable Colour                | Grey outer blue/brown inner                 |   |                       |
| Fitting                     | ¾" or 1 ¼" BSP with male and female threads |   |                       |
| Fitment                     | In line                                     |   |                       |
| Mounting                    | Vertical, flow downwards                    |   |                       |

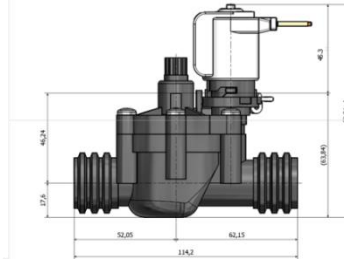
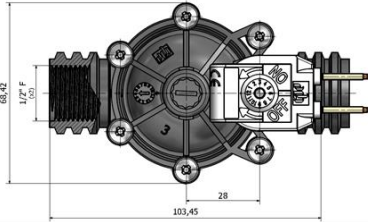
## Solenoid Valve – WRAS Cert No. 1901033

| 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 ½" – 1 ¼"                       | Coil                    | Watertight – C.E.I IP 55   |
| Control  | NC, NO, Latching                   | Cable Length            | Aprox 600mm                |
| 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 |                         |                            |

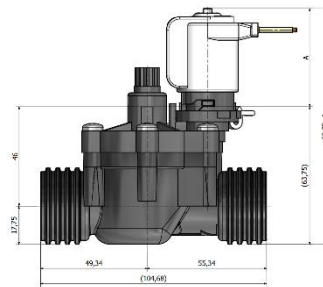
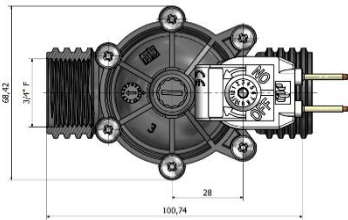
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## Dimensions

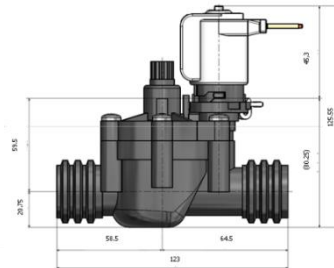
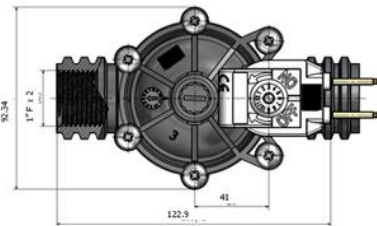
1/2"



3/4"



1"



# Waterguard

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Any application, water leak detection and prevention.  
To find your solution visit [www.waterguard.co.uk](http://www.waterguard.co.uk).

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