Flowmatic Automatic 24AC Concealed Wall Assembly for Basins and Troughs

The TZ-FLOWTAPC24 is a universal aesthetically pleasing, single temperature water control unit, which can be used for hand basins, sinks, or any application to initiate a controlled flow of water

Pre Installation:

1. Water conditions must meet Operation Requirements (bottom right of page) before proceeding.
2. A pressure reduction valve may be required to comply with recommended maximum supply pressure.
3. If your water pressure is outside the stated range please contact Galvin Engineering.
4. Flush all supply lines to remove debris prior to the installation of this product.
5. Fit line strainer (supplied) to protect the solenoid valve from debris.
6. Access to the sensor, solenoid valve and transformer/GPO should be maintained for future maintenance.
7. It is recommended that isolating valves be installed upstream to the solenoid valve to allow for servicing.
8. 25 mm conduit should be used to house the leads so that wiring may be able to be removed.
9. The unit is supplied with 3 metres of lead on the transformer and 3 metres of lead from the solenoid. Lead lengths up to 5 metres may be accommodated (can be ordered separately).
10. Do not extend the existing leads on site without using the correct lead extension as this will void any warranty.
11. Connect the supplied electrical interference suppressor to each cable (1x transformer, 1x solenoid lead) as shown in Figure 1.
12. Ensure they are as close to the sensor face as possible.
13. Consider ease of operation when selecting a location to install the sensor.
14. The sensor may not work as intended if the sensor eye is installed in a position where light can be directed or reflected directly into the sensor eye.
15. Most installation problems are due to damage to the unit during installation or inappropriate installation location. Please select the location carefully and take care with the installation

Figure 1

General Installation Requirements:

1. Suitable access for the service of all components must be provided.
2. It is recommended that acoustic dampening products or materials be used in facilities where increased levels of sound protection is required.
3. A water hammer arrestor may also be required.
4. Please ensure that the requirements of AS/NZS 3500.1: Plumbing and Drainage are adhered to.
5. The number of valves and simultaneous demand must be considered when sizing pipes. If other fixtures are connected to the supply line, calculations of flow rates and pressures must be undertaken to ensure adequate water supply.
6. Limit the number of changes of directions in pipe work. This will result in less friction loss, better valve performance and reduce potential water cavitation noise.
7. The use of isolating valves is recommended for servicing and to assist in the control of flow and volume of water.
8. For personal installation assistance, please call our head office on 1300 514 074 and speak to our customer service staff.

Operation Requirements	
Maximum working pressure	500kpa
Minimum working pressure	100kpa
Recommended working pressure	350kpa
Maximum Temperature	75°C
Minimum Temperature	5°C
Power Supply	240V AC

Certified System Quality ISO 9001 SAI GLOBAL

Certified System Environment ISO 14001 SAI GLOBAL

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Installation:

Installation Site

1. Install sensor above and to the right of the water outlet.
2. Be sure that passing traffic cannot trigger the sensor. Allow at least 400mm clearance.
3. Up to 600mm clearance may be necessary from reflective surfaces, such as ceramic tiles and stainless steel, directly in front of and parallel to the front face of the sensor.
4. Be aware that nearby wall or objects may reflect infrared light back, which may blind the sensor.

Mounting the Sensor

1. The FLOWTAPC24 kit is supplied with a galvanised in wall electrical box.
2. The stainless steel sensor should be mounted flush to the wall over a 90mm x 60mm cut-out.
3. Apply a thin bead of silicon sealant to the inside of the plate around the electronics module.
4. Screw the face plate in place.

Mounting the Solenoid Valve

1. Check that the planned flow direction through the valve is correct.
2. Ensure that no Teflon tape, copper swarf, sand or other debris can enter and foul the solenoid valve.
3. Fit supplied line strainer upstream of the solenoid valve. Failure to do so may void the warranty.
4. Connect solenoid, in a horizontal position, to the water supply.
5. The outlet can be either wall mounted or hob mounted. (Outlets (hob or wall) are not supplied standard with the kit and must be ordered separately).
6. Important information: Solenoid valve must be activated 1-2 times a day if they are to be left in place for an extended period of time.
7. The water supply should be provided via normal plumbing practices, either cold or pre-mixed warm, using 2 cistern taps, plumbed to the outlet spout. It is recommended that a Thermostatic Mixing Valve or Tempering Valve be installed (depending on site requirements).
8. The 24V AC transformer should be plugged into a standard mains power point (GPO).
9. Connect the solenoid plug and transformer plug to the rear of the sensor, observing the correct plug connection.
10. Turn on the GPO and test the unit.
11. Wave the back of your hand through the beam to turn the water on and again to turn the water off.
12. The sensor will require adjustment (see next section).
13. It is recommended that sensitivity is set to MIN and incrementally turned anti-clockwise (MAX), until the correct sensitivity is reached.

Note that all electrical components should be protected from contact with water and installed in accordance with local regulations.

Operation and Adjustment:

1. The TZ-FLOWTAPC24 is activated by passing your hand between 50 mm – 100 mm in front of the sensor face.
2. The water will continue to flow until either:
   - Your hand passes in front of the sensor again or
   - The chosen time frame has passed (default 10 sec).

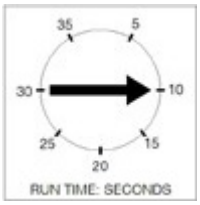
Sensitivity

1. The TZ-FLOWTAPC24 has an adjustment dial for the sensitivity of the sensor.
2. The sensor is factory set to MEDIUM and will need to be adjusted to suit individual installations. Refer to Figure 2

Turn anti-clockwise to increase sensitivity or clockwise to decrease sensitivity.

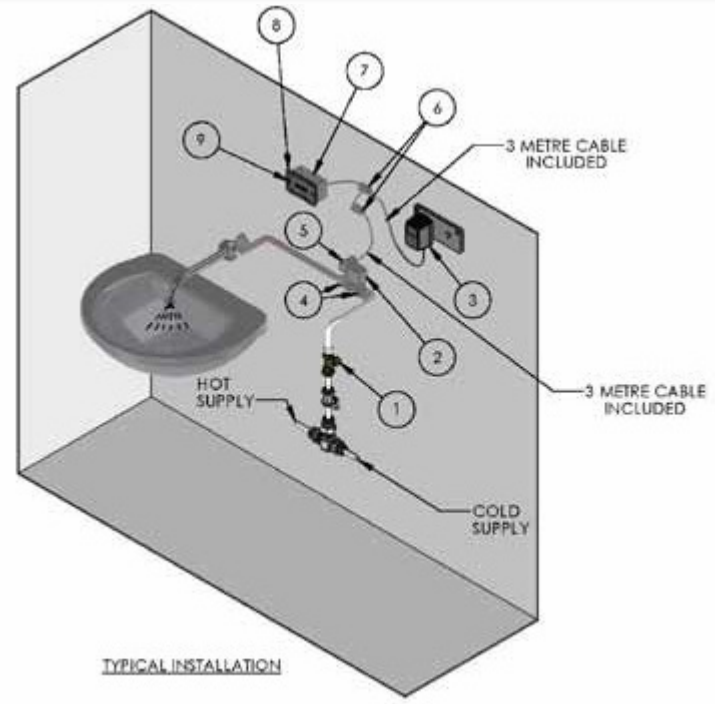
Run Time

1. The run time is preset to 10 seconds, to increase turn the runtime dial CLOCKWISE. To decrease turn the dial ANTI-CLOCKWISE. Please refer to Figure 3.



Turn clockwise to increase run time or anti-clockwise to decrease run time.

Preset at 10 seconds



Item#	Part#	Description	Qty#
1	366203	BS Y Line Strainer 15	1
2	717964	St/St Solenoid Valve 24V AC 15BSP	1
3	52014	Transformer 24V AC 0.9 AMP	1
4	64378	BS Nipple 15	2
5	806884	Connector Plug Assembly	1
6	717977	Electronic Interference Suppressor	2
7	702462	Galvanised Inwall Box (94x54x39)	1
8	TZ-FLOWSENC24	St/St Face Plate With Concealed Wall Sensor	1
9	702495	St/St Snake Eye CSK Screw	2

Trouble Shooting:

Problem	Fault	Remedy
Sensor Not Responding	Damaged or scratched lens	Replace Sensor Unit
	Beam length to short	Adjust beam to recommended setting
	Sensor lead damaged	Replace sensor lead
	No power	Check power is reaching transformer
	Waving hand too fast past the sensor	Slow down the action in front of the sensor
	Transformer faulty	Replace transformer
False Activation	Beam length too long	Adjust beam length to recommended setting
	Electrical interference	Ensure electrical suppressors are installed correctly
	Reflection from a light source	Re-align sensor or shield light source
No WaterFlow	Sensor not responding	Check fault relating to sensor
	No power	Check fault relating to sensor
	Power supply leads joined incorrectly	Replace electronic components
	Faulty solenoid valve	Check electrical connections. Replace solenoid valve
	Water or structural damage to electrical components	Replace damaged electrical components
	Incorrect connections	Check all connections
	Damage to sensor lead or power supply lead	Check and replace lead & controllers
	Pressure exceeding 500 kPa	Reduce pressure to solenoid to 350 kPa
	Water corroded electrical connections	Replace electronic components
Continuous-Water Flow	Solenoid valve jammed open	Remove obstruction from solenoid valve
	Solenoid installed incorrectly	Reinstall valve correctly

Maintenance Instructions:

Solenoid Valve – (Supplied with own instructions)

1. Turn the water supply off.
2. Activate the sensor to drain as much water from the installation as possible.
3. Turn the power off at the GPO.
4. Remove the power plug from the solenoid.
5. It may be more convenient to remove the solenoid valve completely from the installation to service it.
6. Remove the top nut and pull off the coil.
7. Remove O-ring and black valve cover.
8. Unscrew the 4 screws and carefully pull plunger assembly from the valve body.
9. Separate the plunger tube from the diaphragm.
10. Be careful to retain all springs from inside the solenoid.
11. Wash the diaphragm in clean water and ensure the bleed hole is clear of any debris.
12. Please take note of the location of the components and reassemble in the correct order.
13. If the solenoid was removed from the line it may now be replaced.
14. Push the power plug from the sensor back onto the solenoid.
15. It is recommended that the line strainer be serviced and cleaned at this stage to ensure that dirt and grit isn't restricting the flow.
16. Turn power on and test the tap.

Sensor

The Electronic Sensor is a non-serviceable product. If damaged, the sensor must be replaced.

1. Turn power off at GPO.
2. Unscrew the two fixing screws. The silicon seal may have to be cut with care.
3. Unplug the solenoid plug and transformer plug from the rear of the sensor. Generally, if the sensor has been damaged by an electrical surge, it is recommended that the transformer be replaced at the same time.
4. Replace the sensor and reconnect the new sensor.

   Plug the solenoid and transformer plugs back onto the rear of the sensor. Fix the sensor panel back onto the galvanised inwall box with the existing screws.
5. IMPORTANT: Seal the stainless steel face panel and screws using silicon, ensuring it has a water tight seal.

Transformer

The Transformer is a non-serviceable product. If damaged the transformer must be replaced.

1. Turn power off at GPO and unplug the transformer.
2. The transformer comes standard with 3 metres of cable.
3. Determine if cable access is difficult or if the cable is fed through a conduit. If the cable is in a conduit then a lead or leads may be required to be tied to the existing cable before it is removed so the new cable can be pulled back through.
4. Remove the transformer and cable.
5. With the new transformer in place feed the cable back to the Control Module and plug in the appropriate plug connector.
6. Plug the transformer into the GPO point.
7. Turn on the power to the unit and test

Warranty:

Galvin Engineering warrants each product to be free from defects in material and workmanship under normal usage for a period of one year from the date of original shipment. In the event of such defects within the warranty period, Galvin Engineering will, at its option, replace or recondition the product without charge.

THE WARRANTY SET FORTH HEREIN IS GIVEN EXPRESSLY AND IS THE ONLY WARRANTY GIVEN BY THE GALVIN ENGINEERING WITH RESPECT TO THE PRODUCT. GALVIN ENGINEERING MAKES NO OTHER WARRANTIES, EXPRESS OR IMPLIED. GALVIN ENGINEERING HEREBY SPECIFICALLY DISCLAIMS ALL OTHER WARRANTIES, EXPRESS OR IMPLIED, INCLUDING BUT NOT LIMITED TO THE IMPLIED WARRANTIES OF MERCHANTABILITY AND FITNESS FOR A PARTICULAR PURPOSE.

The remedy described in the first paragraph of this warranty shall constitute the sole and exclusive remedy for breach of warranty, and the Company shall not be responsible for any incidental, special or consequential damages, including without limitation, lost profits or the cost of repairing or replacing other property which is damaged if this product does not work properly, other costs resulting from labor charges, delays, vandalism, negligence, fouling caused by foreign material, damage from adverse water conditions, chemical, or any other circumstances over which Galvin Engineering has no control. This warranty shall be invalidated by any abuse, misuse, misapplication, improper installation or improper maintenance or alteration of the product

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