



**Diamond  
Controls**

Leak Detection & Trace Heating Systems

**DATASHEET**

**WATER LEAK DETECTION**



# AT-WFM

## Water Flow Monitor

The Aquitrone Water Flow Monitor AT-WFM is a water flow monitoring system designed to meet the requirements of BREEAM 2018 (BRE Environmental Assessment Method). The AT-WFM system meets the criteria set out to achieve one of the credits available under WAT 03.





### SIMPLE OPERATION

The AT-WFM comprises of a control panel linked to one or two pulsed water meters. For a typical BREEAM installation a meter would be fitted just after the utility companies' water meter at the boundary and a second water meter would be fitted adjacent the main isolation valve or stop-cock inside the building. This would monitor the entire pipe within the grounds up to the point the water enters the building and for any potential leaks within the building. The system is provided with visual and audible alarms for use when the flow exceeds the pre-set limits (customer adjustable). This is combined with a set of volt free alarm contacts. The contacts can be used to link into a BMS or remote alarm monitoring systems. To also prevent loss of water in the event of a suspected leak the panel can directly operate AT-V-B-XX solenoid valve(s) to isolate the water if these are supplied as part of the system. Other larger valves, such as our AT-V-XX butterfly and AT-BV-XX ball valves can also be controlled via our AT-RU1 relay unit.

### SYSTEM FEATURES

- Easily setup/programming vis 4.3" touch screen
- Programmable for different flow rates
- Two levels of monitoring (e.g. For when building is occupied/unoccupied)
- Programmable time periods to determine alarm levels
- Automatic Setting of alarms levels via entry/alarm system or key switch
- Built in pulse outputs for BMS

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### TECHNICAL INFORMATION

<b>Size (WxHxD)</b>	177 x 114 x 65mm
<b>Power</b>	230Vac, 5 Watts Maximum
<b>Volt Free Relay</b>	1no - 3 A at 250Vac/24 Vdc
<b>Temperature</b>	Operating : 5°C to 85°C
<b>Types of Valves</b>	Compatible with Aquitrone AT-V*/B/P/BV* valve ranges. *AT-V-XX and AT-BV-XX valves require additional equipment: AT-RU1
<b>Touchscreen</b>	Resistive 4.3 inch TFT. Resolution: 480 x 272 pixels. Screen size: 95 x 54 mm
<b>Water Meter</b>	To ensure compatibility with the AT-WFM it is strongly recommended to use the Aquilar range of water meters. Third party meters must be capable of supplying a dedicated volt free pulse for each 1/10/100 litre(s).
<b>Pulse Output</b>	Two Channel
<b>Maximum Pulse Circuit</b>	500 metres maximum. For circuit lengths (over 50m) cable should be grounded to prevent interference. Connect ground at controller end only.
<b>Maximum Circuit to Latching Valve</b>	0.5mm <sup>2</sup> up to 200 metres maximum
<b>Panel to meter cabling</b>	1mm <sup>2</sup> up to 100 meter and 1.5mm <sup>2</sup> up to 500 meters
<b>Number of Channels</b>	2 Maximum, can be used single channel
<b>Maximum Operating Pressure*</b>	T16 Bar
<b>Minimum Flow Rates*</b>	AT-WFM will detect any flow rate greater than 0.15m <sup>3</sup> /h

**\*When using Aquilar supplied water meters or valves only. Actual rates dependent on model used. Please see relevant data sheets.**

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### WATER METER 20 TO 40 MM WRAS APPROVED

PIPE SIZES COPPER/MDPE (mm)	15/20	22/25	28/32	35/40	42/50
<b>IMPERIAL</b>	1/2"	3/4"	1"	1 1/4"	1 1/2"
<b>Meter Size (DN)</b>	15	20	25	30	40
<b>Meter Thread (mm) TSNxTVM</b>	20x27	26x34	33x42	40x49	50x60
	<b>G 3/4"B</b>	<b>G1"B</b>	<b>G1 1/4"B</b>	<b>G1 1/2"B</b>	<b>G2"B</b>
<b>Meter Length (mm) (Excluding Unions)</b>	133	190	260	260	300
<b>Meter Height (mm) (inc. Cyble)</b>	141	163	163	163	181
<b>Meter Depth (mm)</b>	88	88	110	110	110
<b>Weight (kg)</b>	1.6	1.6	3.5	3.6	6.2
<b>Body Material</b>	Composit*		Brass		

**Important:** All information, including illustrations, is believed to be reliable. Users, however, should independently evaluate the suitability of each product for their application.

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