

# AquiTron | AT-WFM

Water Flow Monitor

**BREEAM®**

Products that help achieve BREEAM® credits



**DATA SHEET**



**aquilar**  
leak detection solutions



# AT-WFM

## Water Flow Monitor

The AquiTron 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-WM 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

### TECHNICAL INFORMATION

Size (WxHxD)	177 x 114 x 65mm
Power	230Vac , 5 Watts Maximum
Volt Free Relay	1no - 3 A at 250Vac/24 Vdc
Temperature	Operating : 5°C to 85°C
Types of Valves	Compatible with AquiTron AT-V*/B/P/BV* valve ranges. *AT-V-XX and AT-BV-XX valves require additional equipment: AT-RU1
Touchscreen	Resistive 4.3 inch TFT. Resolution: 480 x 272 pixels. Screen size: 95 x 54 mm
Water Meter	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.



### WATER METER 20 TO 40 MM WRAS APPROVED

PIPE SIZES COPPER/MDPE (mm)	15/20	22/25	28/32	35/40	42/50
IMPERIAL	½"	¾"	1"	1¼"	1½"
Meter Size (DN)	15	20	25	30	40
Meter Thread (mm) TSNxTVM	20x27	26x34	33x42	40x49	50x60
	G ¾"B	G 1"B	G 1¼"B	G 1½"B	G 2"B
Meter Length (mm) (Excluding Unions)	133	190	260	260	300
Meter Height (mm) (inc. Cyble)	141	163	163	163	181
Meter Depth (mm)	88	88	110	110	110
Weight (kg)	1.6	1.6	3.5	3.6	6.2
Body Material	Composit*		Brass		

\*Brass available to order



### WATER METER 50 TO 150 MM WRAS APPROVED

PIPE SIZES COPPER/MDPE (mm)	54/63	67/75	76/90	108/125	159/180
IMPERIAL	2"	2½"	3"	4"	6"
Meter Size (DN)	50	65	80	100	150
Meter Length (mm)	200	200	200	250	300
Meter Height (mm)(inc. Cyble)	187	197	219	229	367
Installation space. (mm)	287	297	239	349	582
Weight (kg)	9.9	10.6	13.8	15.6	40.1
Flange Type	PN16				



## LATCHING SOLENOID VALVE N/C 6V DC - 15 TO 42MM

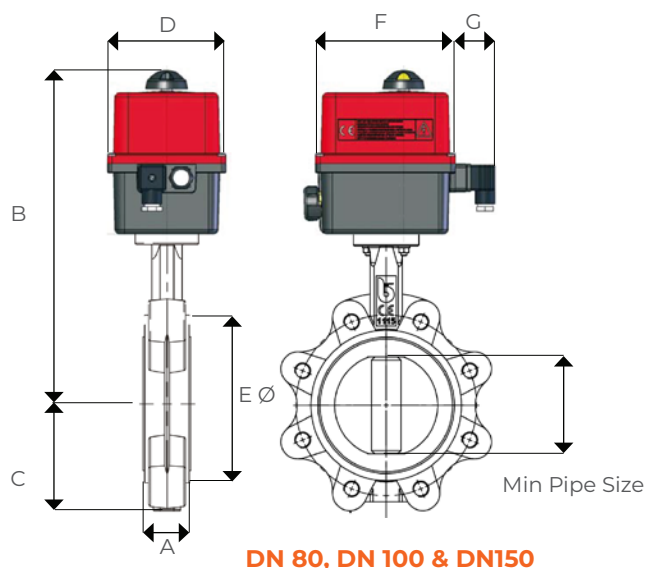
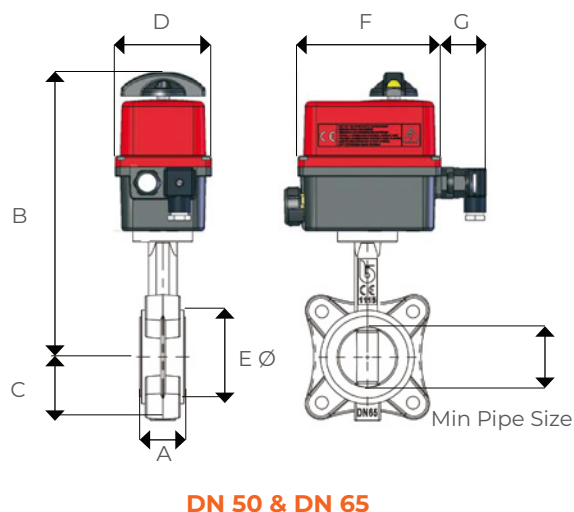
PIPE SIZES COPPER/MDPE (mm)	15	22	28	35	42
IMPERIAL	½"	¾"	1"	1¼"	1½"
Body Thread	BSP Female Thread				
Length (mm)	66	79	95	113	140
Height (mm)	76	83	100.5	132	140
Depth (mm)	40	50	71	81	110
Weight (kg)	0.36	0.5	1.06	1.6	2.5
Fluid Temperature °C	-10 to +140			-10 to +85	
Material	Brass				
Manual Override	No				



## DIMENSIONS IN MM

DN	50	65	80	100	150
PN	16	16	16	16	16
A	43	46	46	52	56
B	278	288	326	342	458
C	62	69	90	106	131
D	92	92	128	128	170 Ø
E Ø	89	102	118	150	205
F	136	136	151	151	170 Ø
G	42	42	42	42	105
min pipe size Ø	31	45	65	90	146
ACT.	ER 20	ER 35	ER 60	ER 100	VS150

\*Other sizes available to special order.

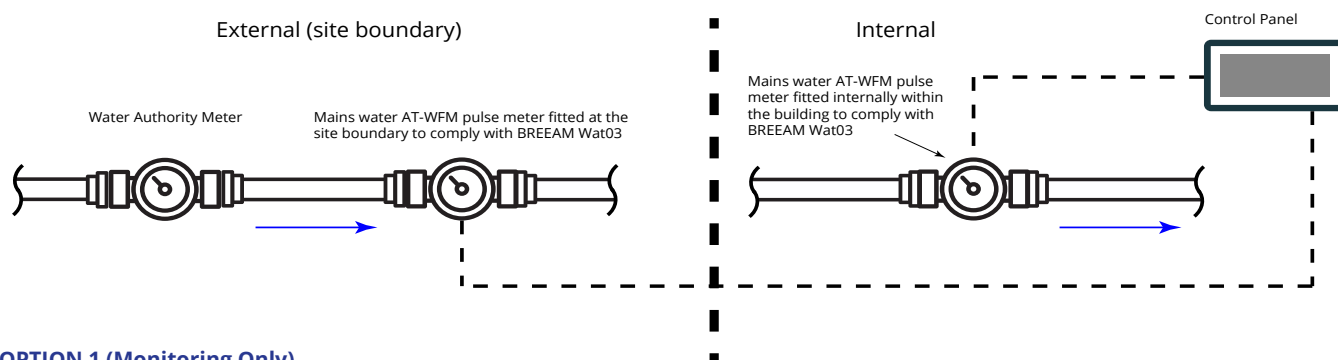


## HOW DOES THE SYSTEM WORK?

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 utilities companies' water meter at the boundary and cover the entire pipe run in the ground until it enters the building. Within the building a second water meter would be fitted adjacent the main isolation valve or stop-cock. This meter would monitor for any potential leaks within the building. The AT-WFM system is provided with visual and audible alarms combined with a set of volt free alarm contacts for use when the flow exceeds the pre-set limits. The contacts can be used to link into a BMS or remote alarm monitoring systems. The panel can operate AT-V-XX valve to isolate the water; this would typically installed adjacent to the internal water meter however the valve is not a requirement on BREEAM systems

## CONFIGURATION EXAMPLES (FIG.A)

### TYPICAL WAT03 BREEAM SYSTEM.



### OPTION 1 (Monitoring Only)

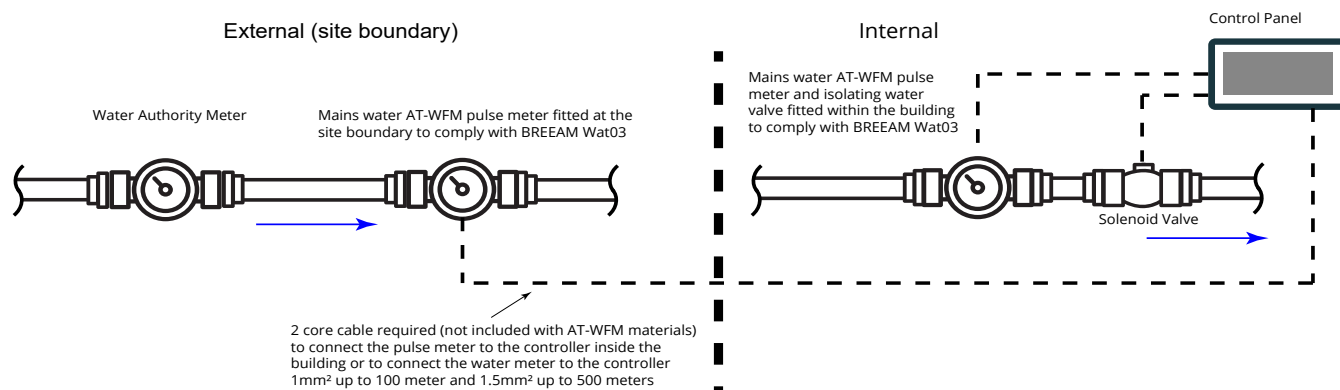
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## TYPICAL SYSTEM INCLUDING A SOLENOID VALVE



### OPTION 2 (Monitoring & Isolation)

## APPROVALS

Electromagnetic compatibility (EMC) 2014/30/EU:

**CE** **UK** **CA** Compliant with standards for emissions BS EN61000-6 3:2007+A1:2011  
Compliant with standards for immunity BS EN IEC 61000-6 1:2019

## ORDERING INFORMATION

Catalogue number 5700 AT-WFM - Water Flow Monitor

## ANCILLARY PRODUCTS

Replacement Battery 5701 AT-WFM Replacement Battery

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