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# AquiTron | AT-WM

Water Monitor



**DATA SHEET**



**aquilar**  
leak detection solutions

# AT-WM

## Water Monitor



The Aquitron AT-WM is a leak monitoring system that has been specifically designed to comply with the requirements of BREEAM (BRE Environmental Assessment Method) Credit Criteria assessment applications, Wat 03 – Water Leak Detection and Prevention. The AT-WM system will allow designers, M&E contractors and developers to achieve the “Credit” available for water leak detection and prevention. The system is designed to monitor water flowing through a WRAS approved pulsed water meter. If the volume of water reaches the preset limit (customer adjustable) the system can isolate the mains water pipe therefore limiting the amount of water and leak damage.

### 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 utilities companies’ water meter at the boundary and covering the entire pipe within the grounds up to the point the water enters the building. A second water meter would be fitted adjacent the main isolation valve or stop-cock inside the building. This would monitor for any potential leaks within the building. The 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 solenoid valve(s) to isolate the water; these are typically installed adjacent to the water meter. These are supplied as part of the system if required.

### SYSTEM FEATURES

- Mains water pipes ranging from 22mm to 150mm
- Programmable for different flow (leakage) rates
- Two levels of monitoring (e.g. occupied and unoccupied building)
- Programmable time periods to determine alarm levels
- Automatic setting of alarm levels via a door entry or intruder alarm

### TECHNICAL INFORMATION

Size (WxHxD)	145 x 85 x 50mm
Power	12Vdc 250mA (Transformer Included)
Volt Free Relay	24Vdc, 1 amp
WRAS approved Solenoid valve (20mm to 40mm)	6Vdc derived from the control panel
WRAS approved Solenoid valve (50mm to 150mm)	230Vac controlled through a separate relay unit



## 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	G1"B	G1¼"B	G1½"B	G2"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				



## SOLENOID VALVE N/C 6V DC - 15 TO 54MM WRAS APPROVED

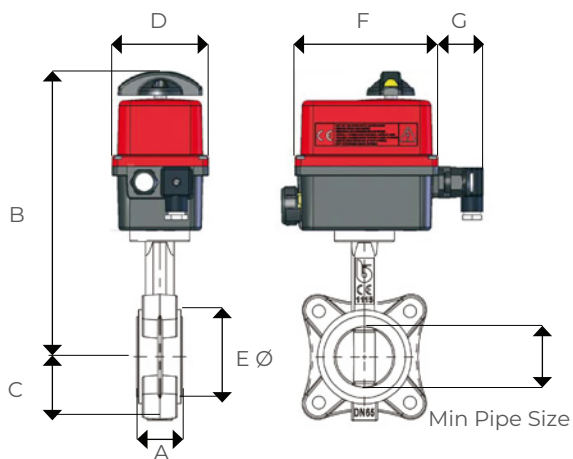
PIPE SIZES COPPER/MDPE (mm)	22/25	28/32	35/40	42/50
IMPERIAL	1"	1¼"	1½"	2"
Body Thread (mm)	¾"	1"	1¼"	1½"
Length (mm)	71	95	95	111
Height (mm)	108	160	160	173
Depth (mm)	58	75	85	100
Weight (kg)	0.8	1.8	2	2.5
Material	Brass			
Manual Override	No			



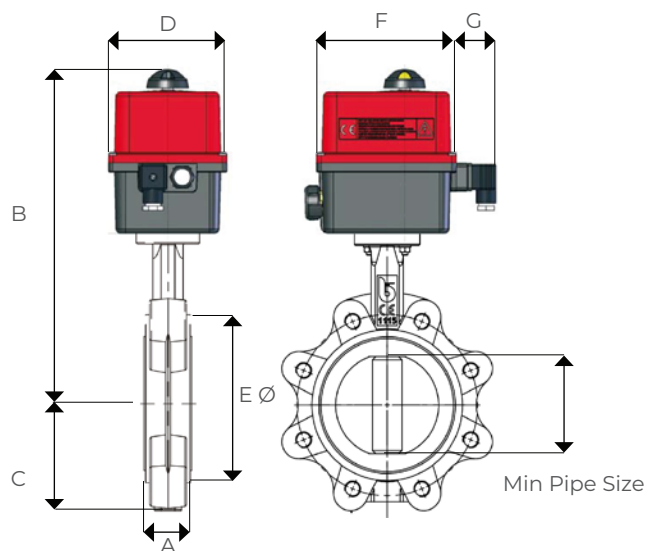
## DIMENSIONS IN MM

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.



**DN 50 & DN 65**



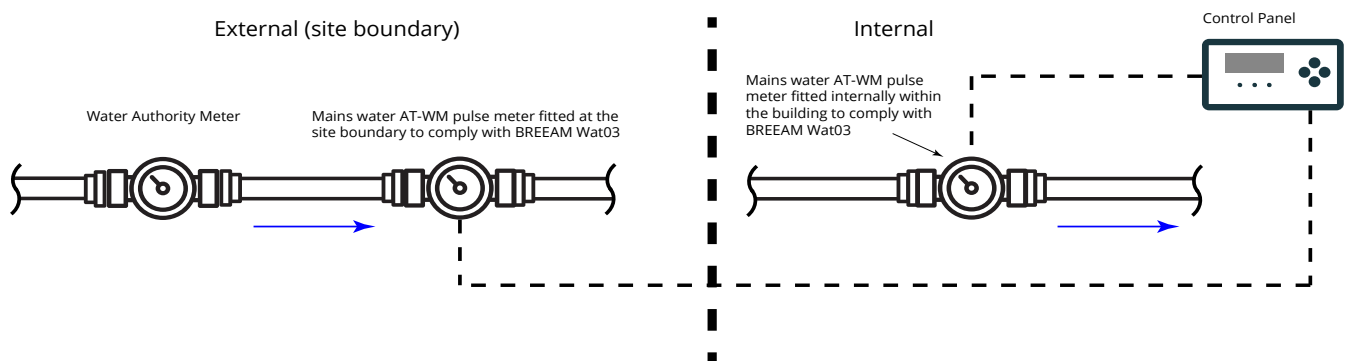
**DN 80, DN 100 & DN 150**

## HOW DOES THE SYSTEM WORK?

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 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-WM 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 solenoid 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

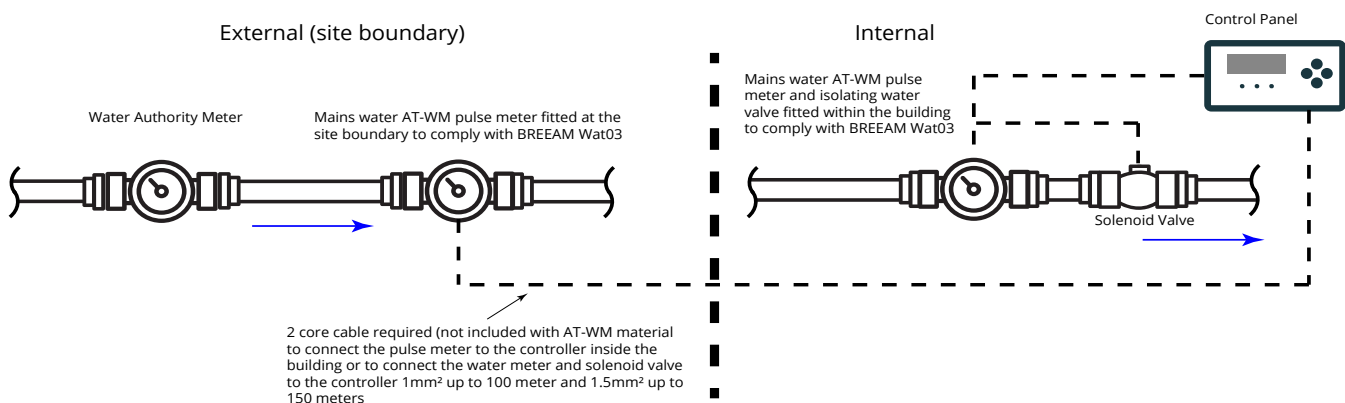
## CONFIGURATION EXAMPLES (FIG.A)

### TYPICAL WAT03 BREEAM SYSTEM.



### OPTION 1 (Monitoring Only)

### TYPICAL SYSTEM INCLUDING A SOLENOID VALVE



### OPTION 2 (Monitoring & Isolation)

## APPROVALS FOR THE WM-C

Electromagnetic compatibility (EMC) 2014/30/EU

EU Use of Certain Hazardous Substance in Electrical and Electronic Equipment (ROHS) 2011/65/EU



The following harmonised standards were applied:

BS EN IEC 61000-6-3:2007+A1:2011

BS EN IEC 61000-6-1:2019

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