

# AquiTron

# WM-M-U

Pulsed Water Meter



**DATA SHEET**



**aquilar**  
leak detection solutions

## Water Meters (20 to 40)



### Aquadis – Rotary piston Volumetric Type Water Meter

Aquadis is a an EEC/ISO Class C piston type meter for residential, commercial and industrial billing applications.

Aquadis combines the advantages of piston type technology together with proven reliability of the extra dry registers. No gear is in contact with water.

The high technology implemented to manufacture measuring chambers ensures stable and durable accuracy of Aquadis meter.

### METROLOGICAL PERFORMANCE

- Class C in all positions
- Very low starting flow allows leakage detection
- Very large measuring range with  $Q_n/Q_{min}$  Ratio > 180 ( $Q_n$  1.5)

### ROBUSTNESS

- Composite register TSN equipped with wiper to ensure readability in tough humid conditions (DN20/25/30 in option)
- Robust hermetically sealed IP68 register TVM (copper can/mineral glass enclosure) to face all field situations, DN20/25/30 in option and DN40-60/65 in standard
- Maximum admissible working pressure is 16 bar (12 bar for DN60/65)

### EASY READING

- Rotation close to 360 on site
- Large numbered rollers with good contrast for excellent reading capability

### COMMUNICATION DEVICE

Pre-equipped for future communication through Cyble. This allows communication and remote reading through:

- Pulse output (Cyble Sensor)
- M-Bus protocol (Cyble M-Bus)
- Radio frequency wireless link (Cyble RF)

### COMMUNICATION

The Aquadis is supplied pre-equipped with Cyble Target which allows communication and remote reading through:

- Pulse output (Cyble Sensor – Waterguard standard)
- M-Bus protocol (Cyble M-Bus)
- Radio frequency wireless link (Cyble RF)

### Key Advantages of Cyble Technology:

- No need for additional investment on the meter to implement remote reading
- Actaris standardised meter interface
- Reliability brought by electronic switch (no wear or bouncing)
- Reverse flow management
- Principle proven on the field with 20 years' experience
- Pre-equipped being immune to magnetic tampering

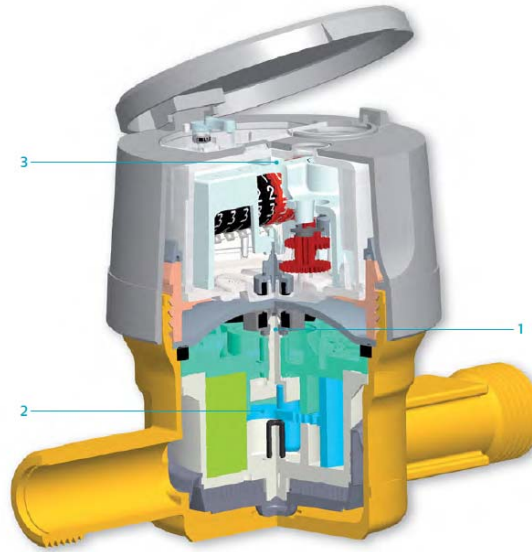
### WORKING PRINCIPLES

The Aquadis has two main components: the hydraulics that allows measurement of the water and the register that displays the measured water in volume.

The transmission interface between those components is achieved by a strong magnetic coupling (1).

Aquadis is a piston type volumetric meter (2). Each rotation of the piston in the measuring chamber represents a given volume of water passing through.

With extra-dry register (3), gears are protected by water and air proof enclosure.



## METROLOGICAL CHARACTERISTICS

Nominal diameter (DN)	mm	20	25	30	40	60/65
	inches	3/4"	1"	1" 1/4	1" 1/2	2" 1/2
Register version		Composite (TSN) <i>OR</i> Copper can/mineral glass (TVM)			Copper can/mineral glass (TVM)	
E.E.C. metrology class		Class C all positions				
E.E.C. approval		F 99.00.382.003.0			F 99.00.382.006.0	
Max. admissible temperature	°C				30	
Max. temperature for short period	°C				50	
Max. admissible pressure	bar	16			12	
Testing pressure	bar	25			20	
Pressure loss group at Q <sub>max</sub>	bar				1	
Nominal flow rate	Q <sub>n</sub> m <sup>3</sup> /h	1.5	2.5	3.5	5	10
Maximum flow rate	Q <sub>max</sub> m <sup>3</sup> /h	3	5	7	10	20
Minimum flow rate	Q <sub>min</sub> L/h	15	25	35	50	100
Transitional flow rate	Q <sub>t</sub> L/h	22.5	37.5	52.5	75	150
Starting flow rate	L/h	2		6	11	18
Accuracy ± 5%**	L/h	10		25	25	40
Accuracy ± 2%**	L/h	13		45	50	80
Indication range	m <sup>3</sup>	10 <sup>5</sup>			10 <sup>6</sup>	
Minimum scale interval	L	0.05			0.5	
Communication pre-equipment		Cyble Technology				

\*\* Manufacturing average values.

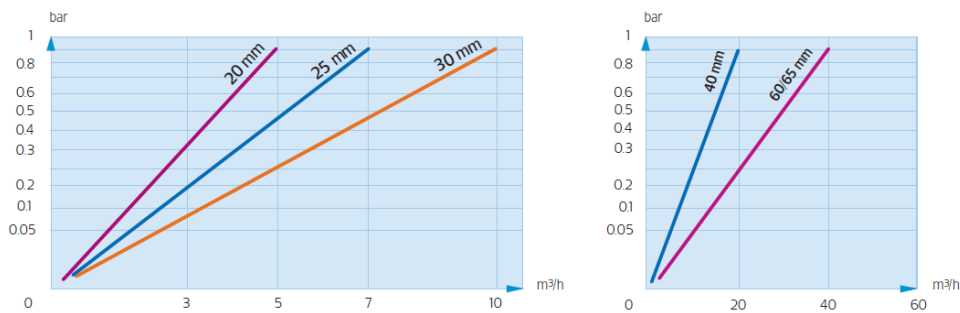
# Water Meters (20 to 40)

## PULSE VALUE

	HF Signal	LF Signal (according to K factor for Cyble Sensor Module)					
Meter range		K=1	K=2.5	K=10	K=25	K=100	K=1000
DN 20 to 40*	1 L	1 L	2.5 L	10 L	25 L	100 L	1 m <sup>3</sup>
DN 60/65	10 L	10 L	25 L	100 L	250 L	1 m <sup>3</sup>	10 m <sup>3</sup>

\* For size 20 mm, 4/4 register divides by 10 the table values.

## EAD LOSS

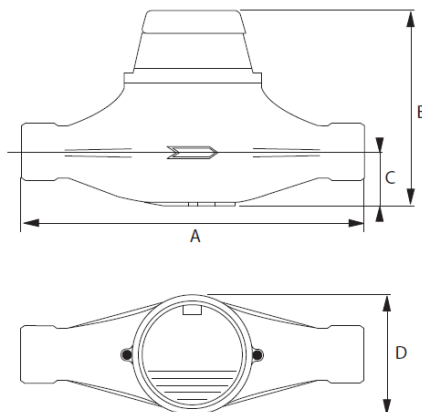
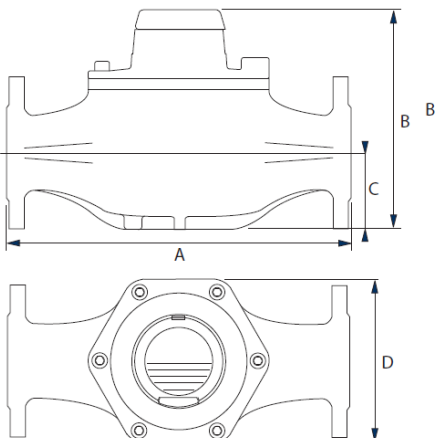


## MEASUREMENTS

Nominal diameter (DN)	mm	20	25	30	40	60/65
Register version		TSN/TVM	TSN/TVM	TSN/TVM	TVM	TVM
Meter thread	inches	G 1" B	G 1" 1/4 B	G 1" 1/2 B	G 2" B	Flanges
	mm	26x34	33x42	40x49	50x60	PN 10/16
A	mm	190	260	260	300	420
B	mm	143	156/142	156/142	180	254
C	mm	18	44	44	57	93
D	mm	88	110	110	140	202
Weight	kg	1.3/1.6	3.2/3.5	3.3/3.6	6.2	22.6

DN 20

< DN 25-30-40



**Important:** All information, including illustrations, is believed to be reliable. Users, however, should independently evaluate the suitability of each product for their application. Aquilar Limited makes no warranty as to the accuracy or completeness of the information, and disclaims any liability regarding its use. The only obligations of Aquilar Limited are those in the Aquilar Standard Terms and Conditions of Sale for this product, and in no case will Aquilar Limited be liable for any incidental, indirect, or consequential damages arising from the sale, resale, use or misuse of the product. Specifications are subject to change without notice. In addition, Aquilar Limited reserves the right to make changes – without notification to Buyer– to processing or materials that do not affect compliance with any applicable specification.

**AquiTron** is a trademark of **AquiTron Limited**

**Aquilar** is a trademark of **Aquilar Limited**

Unit 30, Lawson Hunt Industrial Park,  
Broadbridge Heath, Horsham, West Sussex,  
RH12 3JR

+44 (0) 1403 216100

info@aquilar.co.uk

www.aquilar.co.uk