



# Aquadis+

A New Standard for Volumetric Water Meters

Aquadis+ is a world-class piston type volumetric water meter, designed for the best metering and billing in residential applications.

## FEATURES AND BENEFITS

- » Long-term performance
  - Long-lasting high accuracy
  - High Efficiency
  - Any installation position
  - Permanent Readability
- » New Design Features
  - Enhanced Robustness
  - Pre-equipped for Communication
  - Compact
  - Easy Handling

## Efficiency

Focusing on reliable and long-term performance, Aquadis+ offers maximised revenue collection provided by an innovative design to maintain high efficiency over time.

## The Technology

The working principle of Aquadis+ is based on the combination of an extra dry register (no gears in the water), associated with a hermetical measuring element, using the concept of magnetic transmission.

## Communication Device

Pre-equipped for future communication through Cyble.

## Approvals and Standards

Aquadis+ is approved at Q3 1,6, 2,5 and 4m<sup>3</sup>/h from Ratio 50 to 400 according with:

- » MID, Directive 2004/22/EC of the European Parliament
- » European Standard EN14154  
International Standard ISO 4064
- » Recommendations OIML R49

Aquadis+ is compliant with regulations for products to use in contact with water intended for human consumption. Aquadis+ has approvals granted by the following laboratories:

- » ACS (France)
- » Belgaqua (Belgium)
- » Kiwa (Netherlands)
- » WRAS (United Kingdom)
- » KTW - DVGW W270 (Germany)

**Hermetically Sealed Register\* (Counter)**

Glass lens and copper can register, condensation and water proof (IP 68), allows permanent readability

\* option for plastic case, for specific applications



**Communication**

Pre-equipped with the proven Cyble target allowing the meter's integration into remote reading systems by adding the relevant module



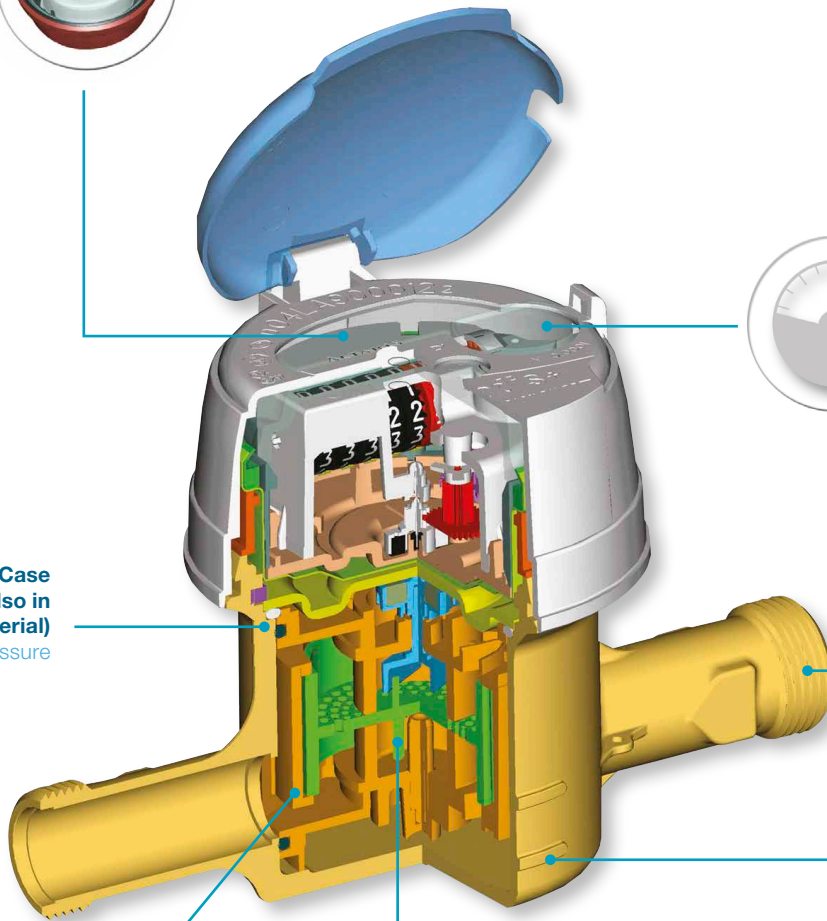
**Robust Case (available also in thermoplastic material)**

High resistance to pressure

**Effective and Easy Maintenance Filter**

Prepared to contain major particles, easy to clean

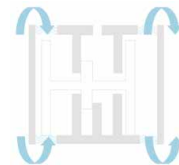
**Compact and Easy Handling**



Aquadis+ DN15

**Outstanding Accuracy and Long Term Performance**

Hydro-dynamically balanced piston obtained by an innovative design of measuring elements enables not only detection and account of extremely low flows (typically, < 1L/h) in wide range of flow rates, but also long-lasting and stable accuracy.



**OPTION**

Aquadis+ meters may be fitted with:

- » Cyble modules from the factory (please refer to specific leaflet),
- » Non return-valve for outlet pipe,
- » Removable cap.

## COMMUNICATION

Aquadis+ is always pre-equipped with the proven Cyble technology, making it possible to mount plug-and-play Cyble modules at any time. This opens up to a large range of advanced and reliable AMR systems:

- » Radio walk-by systems
- » Radio fixed data collection systems
- » M-Bus wired systems (walk-by or fixed network)
- » or any other system based on universal pulse outputs

## Key Advantages of Cyble Technology

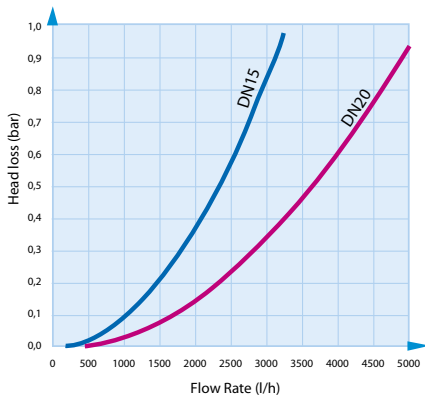
- » Itron standard meter interface
- » No need of additional investments on the water meter
- » Electronic detection principle (no wear or bounce)
- » Leak detection
- » Reverse flow detection
- » Fraud detection
- » Not sensitive to magnetic fields
- » Perfect index correlation

For further info, refer to the specific leaflet.



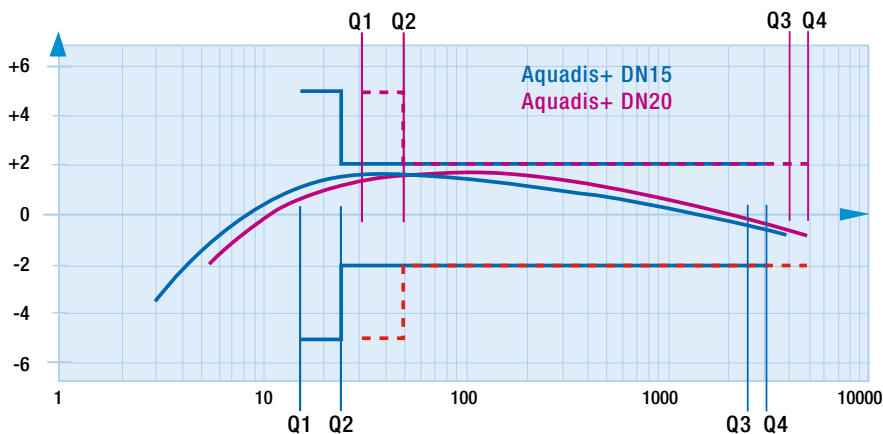
Cyble RF fitted on Aquadis+ DN15 meter

## HEAD LOSS



Aquadis+ DN20

## TYPICAL ACCURACY CURVE ACCORDING WITH R160 MID CHANNEL



The dynamic range is defined as the Ratio (R) between the Nominal and the minimum flowrates. The MID approval proves the Aquadis+ real capacity to withstand to higher nominal flows ( $Q3 > Qn$ ).



Aquadis+ Manifold version



Aquadis+ DN15 composite version:  
 - robust  
 - lighter and ergonomic  
 - resistant to dezincification

## Technical Specifications

Nominal Diameter (DN)	mm	15 or 20		20
	inches	1/2" or 3/4"		3/4"

### In compliance with MID

MID Accuracy Ratio (Q3/Q1) - all positions			50 / 400	63 / 400		
MID Type Approval Number			LNE 13636	LNE 16467		
Nominal Flow Rate	(Q3)	m <sup>3</sup> /h	1.6	2.5	2.5	4.0
Standard Ratio (*)	(Q3/Q1)		100	160	100	160
Minimum Flow Rate	(Q1)	l/h	16	15.6	25	25
Transitional Flow Rate	(Q2)	l/h	25.6	25	40	40
Overload Flow Rate	(Q4)	m <sup>3</sup> /h	2	3.125	3.1	5
Pressure Loss Class at Q3		bar	0.25	0.63	0.25	0.63
Maximum Admissible Pressure (MAP)		bar	16		16	
Operating Temperature (T)		°C	0.1 / 50		0.1 / 50	
Climatic Environment		°C	5 / 55		5 / 55	

(\*) Other Ratios available under specific request

### Other Characteristics

Indication Range		m <sup>3</sup>	99999,999	99999,999
Minimum Scale Interval		l	0.02	0.02
Typical Starting Flow Rate		l/h	1	2
Accuracy +/- 5%		l/h	3	5
Accuracy +/- 2%		l/h	5	8
Testing Pressure		bar	25	25
Maximum Accidental Water Temperature		°C	60 (<1h/day)	60 (<1h/day)

### In compliance with EEC 75/33 - Expiring date May 2014

EEC Metrology Class			Class C all position				-
EEC approval number			F-04-G-297				-
Nominal Flow Rate	(Qn)	m <sup>3</sup> /h	0.75	1	1.5	0.75/1,5*	-
Maximum Flow Rate	(Qmax)	m <sup>3</sup> /h	1.5	2	3	3	-
Minimum Flow Rate	(Qmin)	l/h	7.5	10	15	7.5	-
Transitional Flow Rate	(Qt)	l/h	11.25	15	22.5	11.25	-
Maximum Admissible Pressure (PN)		bar	16				-
Pressure Loss (Head Loss Group)		bar	1				-
Maximum Operating Temperature (T)		°C	30				-

### In compliance with British Standard 5728 - Expiring date October 2014

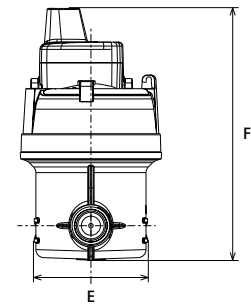
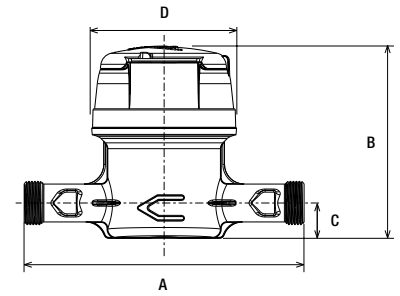
BS Metrology Class			Class D all position				-
Nominal Flow Rate		m <sup>3</sup> /h	1	1.5			-
Maximum Flow Rate		m <sup>3</sup> /h	2	3			-
Minimum Flow Rate		l/h	7.5				-
Transitional Flow Rate		l/h	11.5				-

### Dimensions

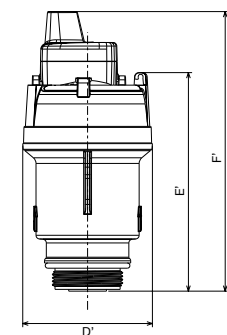
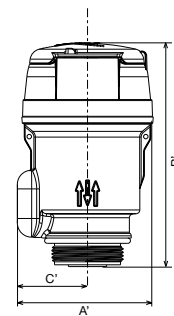
Nominal Diameter	mm	15 or 20	20	
Meter Thread	inches	G 3/4"	G 1"	G 1"
	mm	20 x 27	26 x 34	26 x 34
A	mm	105/110/115*	130/165/190	190
B	mm	115	143	
C	mm	22	20	
D	mm	85	88	
E	mm	68	70	
F	mm	158	186	

(\*) Other available lengths: 134, 165, 170

Manifold		Q3=2.5m <sup>3</sup> /h	Q3=4m <sup>3</sup> /h
A'	mm	91	101
B'	mm	150	159
C'	mm	47	50.5
D'	mm	88	101
E'	mm	148	157
F'	mm	190	201



In line version



Manifold version

### Weight - Brass Version

Dimension	mm	15 or 20 (Q3=2.5m <sup>3</sup> /h)	20 (Q3=4m <sup>3</sup> /h)
Weight in line	Kg	0.75/0.95	1.5
Weight coaxial	Kg	1.12	1.2



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