



# Aquadis+ Composite version

Highest accuracy secured by matchless robustness

Aquadis+ is a world-class piston type Volumetric cold water meter conform to MID (Measurement Instrument Directive) and designed for the best metering in residential applications.

## FEATURES AND BENEFITS

- » New Design Features
  - Robust and compact
  - Lighter and ergonomic
  - Resistant to dezincification
  - Positive environmental impact
- » Long-term performance
  - Long-lasting high accuracy
  - Permanent Readability
  - High Efficiency
  - Long-lasting robustness

## 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.

## New Material

Aquadis+ is now available in composite case, a special thermoplastic material with highest technical characteristics suitable to replace the traditional brass and bronze materials, without any constrain neither in term of metrology nor of resistance to pressure.

## Approvals and Standards

- » Aquadis+ Composite is approved according:
- » MID - Directive 2004/22/EC of the
- » European Parliament
- » European Standard EN14154 - 2005 for water
- » meters

## and compliant with:

- » Recommendations OIML R49 for water meters intended for metering of cold potable water meters
- » International Standard ISO 4064 for cold potable water meters

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)
- » Kiwa (Netherlands)
- » WRAS (United Kingdom)
- » Laboratory C.C.T. (Italy)

**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



**Pressure ring**

composite screwed ring closing the pressure plate

**External ring to protect the closure area**

**Composite body**

Lighter, with high resistance to pressure and ageing.

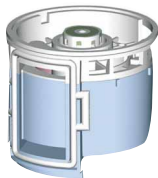
**Monoblock threads**

Optimized design to facilitate installations and keep robustness

**Internal filter**

**Outstanding Accuracy and Long Term Performance**

Equally to Aquadis+ with metallic case, the 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.



**ROBUSTNESS & ENVIRONMENTAL IMPACTS**

**The severe Itron internal validation test protocol**

demonstrates the high performance thermoplastic material together with our design gives a very high level of confidence to resist against:

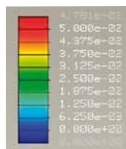
- » static and dynamic pressure
- » ageing in correlation with temperature
- » mechanical strengths of the body and of the threads => safe installation
- » brass dezincification and metal corrosion

These results permit to not provide any particular restriction in using Aquadis+ in comparison with metallic version.

**Environment**

A study conducted in cooperation with CODDE (COncEption DévEloppement Durable Environnement) shows that the composite material provides advantages under environmental preservation point of view. A comparison made with a metallic water meter on manufacturing and distribution process shows less important impacts in particular on air toxicity and energy depletion, thanks to its lightness.

» Please contact us for further details.



**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**

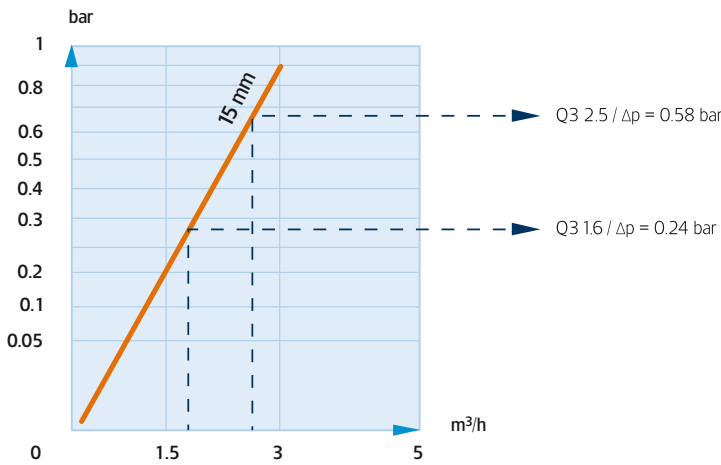
- » Itron standard meter interface
- » No need of additional investments on the water meter
- » Electronic detection principle (no wear or bounce)
- » Leak detection
- » Reverse flow detection
- » Fraud detection
- » Not sensitive to magnetic fields
- » Perfect index correlation

For further info, refer to the specific leaflet.

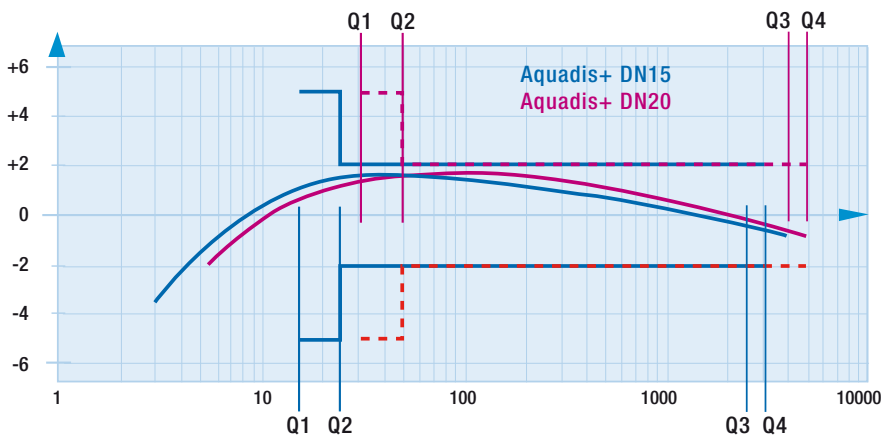


Cyble RF fitted on Aquadis+ meter

**HEAD LOSS**



**TYPICAL ACCURACY CURVE ACCORDING WITH R160 MID CHANNEL**



According with MID, ISO standard and OIML recommendation, the metrology classes A, B, C, D are replaced by the value of the ratio (R) between nominal flow (Q3) and minimum flow (Q1). Head Loss



Aquadis+ Register



Aquadis+ Versione Manifold

## Technical Specifications

Nominal diameter (DN)	mm	15
	inches	½"
MID Metrology Class (R) - all positions		50 min- 315 max
MID Type Approval Number		LNE 13636
Nominal flow rate	(Q3) m <sup>3</sup> /h	1.6 2.5
Standard Ratio (*)	(Q3/Q1)	100 160
Minimum Flow Rate	(Q1) l/h	16 15.6
Transitional Flow Rate	(Q2) l/h	25.6 25
OverLoad Flow Rate	(Q4) m <sup>3</sup> /h	2 3.12
Typical Starting Flow Rate	l/h	< 1
Accuracy ± 5%	l/h	4
Accuracy ± 2%	l/h	8
Pressure Loss Class at Q3	bar	0.25 0.63
Maximum Admissible Pressure (MAP)	bar	16
Testing pressure	bar	25
Operating Temperature (T)	°C	0.1 - 30
Maximum Accidental Operating Temperature	°C	50 (< 1h/day)
Climatic Environment	°C	5 - 55
Indication Range	m <sup>3</sup>	99999.999
Minimum Scale Interval	L	0.02

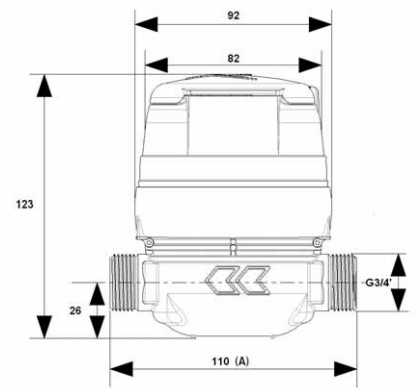
(\*) Other Ratios available under specific request

Nominal diameter (DN)	mm	15
Meter Thread	inches	G ¾"
	mm	20 x 27
Length A	mm	110 - 115 - 165 - 170
Weight in line	Kg	0.49 (TSN) - 0.57 (TVM)
Weight in coaxial	Kg	0.68

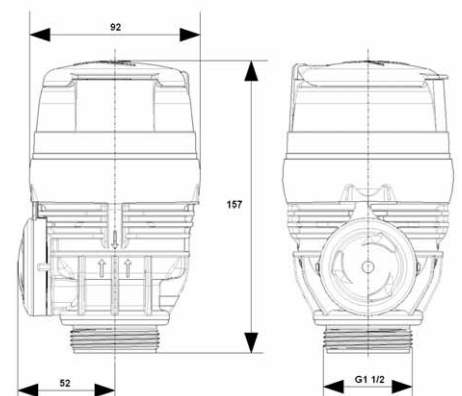
## OPTIONS

Aquadis+ meters may be fitted with:

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



In line version



Manifold version



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