



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
- » 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)
- » KTW (Germany)
- » NSS 61 (USA)

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

High performing composite material

Light, with high resistance to pressure and ageing

External ring to protect the closure area

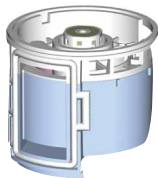
Monoblock threads

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, <math><1\text{L/h}</math>) 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 and chlorine
- » 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

The composite material provides advantages linked to environmental preservation. A comparison made with a metallic water meter on manufacturing and distribution process shows less important impacts particularly on air toxicity and energy depletion, thanks to its lightness.

However, a metallic case water meter remains more simple to recycle than a composite meter.

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

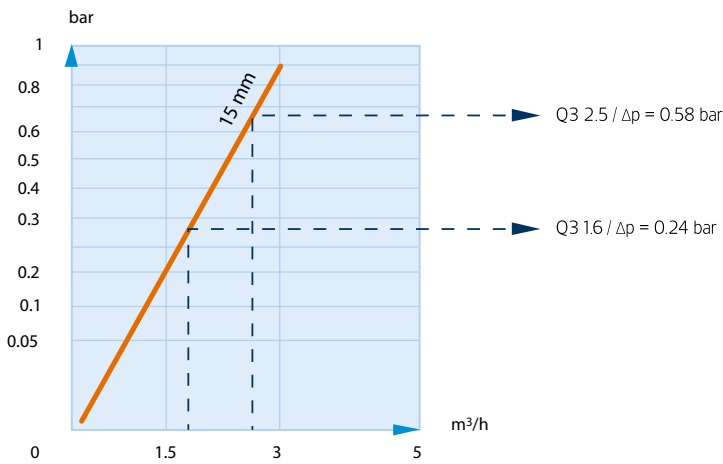
- » Itron standard meter interface
- » No need of additional investments on the water meter
- » Electronic detection principle (no wear or bounce)
- » Leak detection
- » Reverse flow detection
- » Fraud detection
- » Not sensitive to magnetic fields
- » Perfect index correlation

For further info, refer to the specific leaflet.

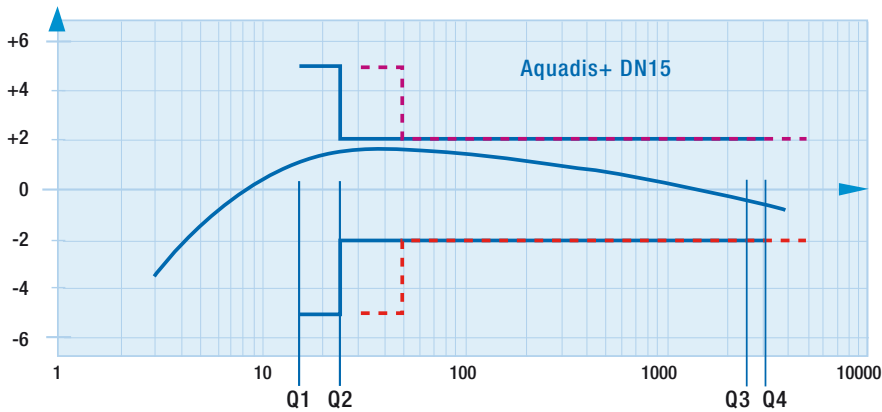


Cyble RF fitted on Aquadis+ meter

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+ Version Manifold

Technical Specifications

Nominal diameter (DN)	mm	15
	inches	½"
MID Metrology Class (R) - all positions		50 min - 400 max (*)
MID Type Approval Number		LNE 13636
Nominal flow rate	(Q3) m³/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) m³/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
Maximum Operating Temperature (MAT)	°C	50 **
Climatic Environment	°C	5 - 55
Indication Range	m³	99999.999
Minimum Scale Interval	L	0.02

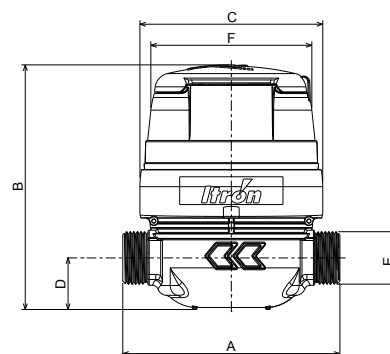
(*) R 315 for in line version
 (**) Not to be used in heated water

Nominal diameter (DN)	mm	15	Manifold
Meter Thread	inches	G ¾"	G 1 ½"
	mm	20 x 27	40 x 49
A (Length)	mm	110 - 115 - 165 - 170	-
B	mm	123	157
C	mm	92	92
D	mm	26	47
E	mm	¾"	1 ½"
F	mm	82	-
Weight	Kg	0.49 (TSN) - 0.57 (TVM)	0.677

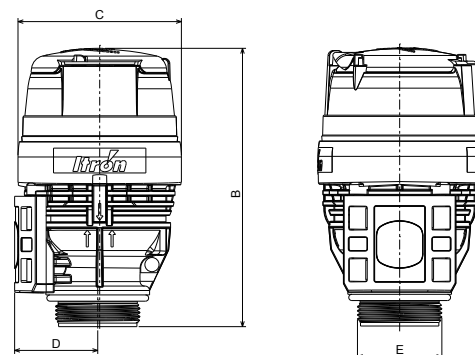
OPTIONS

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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