



Wide Measuring Range
Communication
Easy Reading

Aquadis

Rotary piston volumetric type water meter

- ▶ Class C and D all positions
- ▶ Very low starting flow
- ▶ Copper can/mineral glass register
- ▶ Pre-equipped for communication

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

The Technology

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 Performances

- Class C in all positions
- Class D in all positions for DN 15 and Manifold
- 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 (DN15 in standard and 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.





▶ Copper can/mineral glass register (TVM) DN20 meter



▶ Composite register (TSN) DN 25 to 30 meters



▶ Copper can/mineral glass register (TVM) DN 25 to 60/65 meters



▶ Cyble RF fitted on Aquadis meter

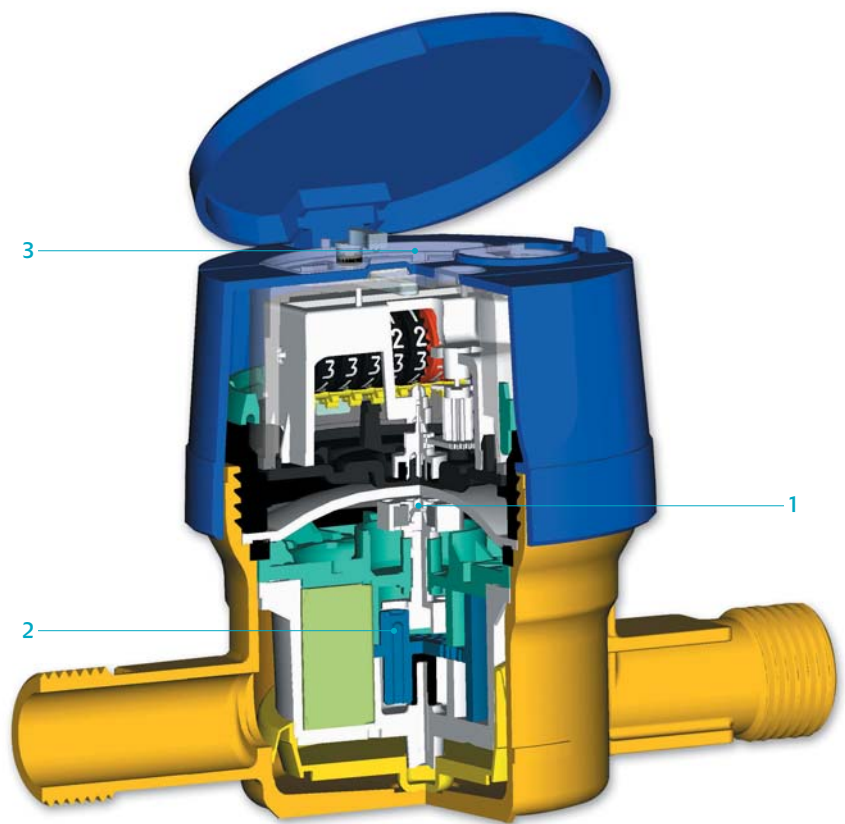
Working Principle

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

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 registers **3**, gears are protected by water and air proof enclosure.



Communication

The Aquadis is supplied pre-equipped with Cyble Target

Allows communication and remote reading through:

- Pulse output (Cyble Sensor)
- 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 standardized meter interface, irrespective of meter technology and widely spread on Actaris water meters range
- Reliability brought by electronic switch (no wear or bouncing)
- Reverse flow management
- Principle proven on the field with a 20 years experience
- Pre-equipment being immune to magnetic tampering

Metrological Characteristics

Nominal diameter (DN)	mm	15*	20	25	30	40	60/65					
	inches	1/2"	3/4"	1"	1" 1/4	1" 1/2	2" 1/2					
Register version		Composite (TSN)	Composite (TSN) OR 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 Qmax	bar	1										
Nominal flow rate	Qn	m³/h	0.75	1	1.5	1.5	2.5	3.5	5	10	20	
Maximum flow rate	Qmax	m³/h	2	2	3	3	5	7	10	20	40	
Minimum flow rate	Qmin	L/h	7.5	10	15	15	25	35	50	100	120	
Transitional flow rate	Qt	L/h	11.25	15	22.5	22.5	37.5	52.5	75	150	300	
Starting flow rate		L/h	1		2		6		11		30	
Accuracy ± 5%**		L/h	4	4	4	10		25		25	40	70
Accuracy ± 2%**		L/h	7	7	7	13		45		50	80	100
Indication range		m³	10 ⁵						10 ⁶			
Minimum scale interval		L	0.05						0.5			
Communication pre-equipment			Cyble Technology									

* Both coaxial and in line, also exists variable QN 0.75 to 1 m³/h and QN 1 to 1.5 m³/h - ** Manufacturing average values.

Class D meter - In line DN 15 and Manifold - According to British standard 5728

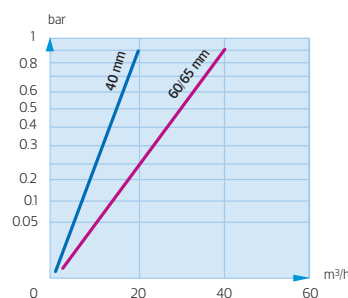
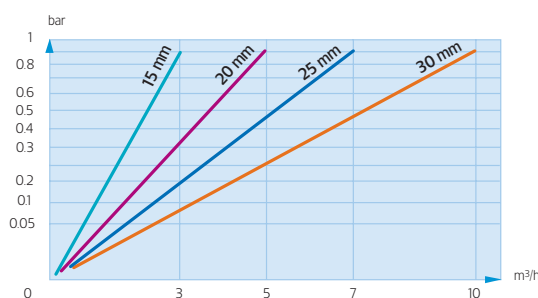
Nominal flow rate	Qn	m³/h	1	1.5
Maximum flow rate	Qmax	m³/h	2	3
Minimum flow rate	Qmin	L/h	7.5	11.25
Transitional flow rate	Qt	L/h	11.5	17.25
Indication range		m³	9 999.9999	
Minimum scale interval		L	0.02	

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 15 to 40*	1 L	1 L	2.5 L	10 L	25 L	100 L	1 m³
DN 60/65	10 L	10 L	25 L	100 L	250 L	1 m³	10 m³
DN15 class D (BS 5728)	0.1 L	0.1 L	0.25 L	1 L	2.5 L	10 L	100 L

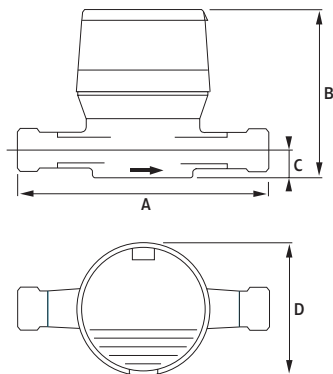
* For sizes 15 and 20 mm, 4/4 register divides by 10 the table values.

Head Loss

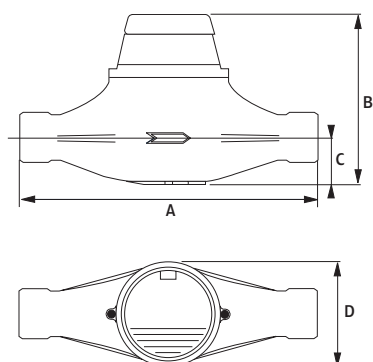


► Aquadis DN40 TVM

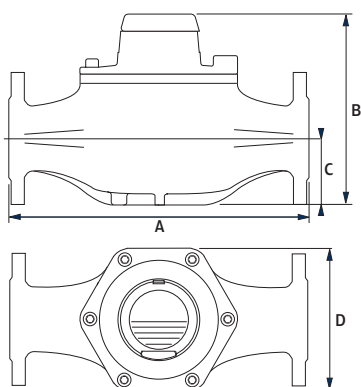
► DN 15-20



► DN 25-30-40



► DN 60/65

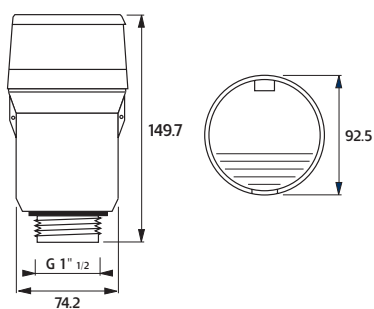


Dimensions

Nominal diameter (DN)	mm	15	20	25	30	40	60/65
Register version		TSN	TSN/TVM	TSN/TVM	TSN/TVM	TVM	TVM
Meter thread	inches	G 3/4" B	G 1" B	G 1" 1/4 B	G 1" 1/2 B	G 2" B	Flanges
	mm	20x27	26x34	33x42	40x49	50x60	PN 10/16
A	mm	170*	190	260	260	300	420
B	mm	116	143	156/142	156/142	180	254
C	mm	20	18	44	44	57	93
D	mm	88	88	110	110	140	202
Weight	kg	1	1.3/1.6	3.2/3.5	3.3/3.6	6.2	22.6

* Other available lengths: 105, 110, 115, 134, 165 mm (G 3/4") and 105, 165, 190 mm (G 1").

► Manifold DN 15



Options (none exhaustive list)

Aquadis meters may be fitted with:

- Cyble modules from the factory (please refer to specific leaflet),
- Non return-valve for outlet pipe DN 15, 20, 25, 30 and 40,
- Removable cap for in line meters DN 15 and 20, on TSN registers,
- Removable cap for DN ≥25.

For more information, please contact your local agency.



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