

620C/ 620MC

Volumetric Meter-Composite Body
Dry Dial



Main characteristics

DN 15 to 20, PN16

Light and easy to handle

Compatibility with all new and planned regulations for potable water

Unrivalled accuracy and measuring range

High resistance to impurities and aggressive water

Quiet operation

Applications

The 620C/620MC is a high precision meter.

Due to its unique piston measuring chamber even drops of water are counted.

With the 620C/620MC you are assured of continuously good metrology.

A clear view is either provided through a register with an integrated wiper or a sealed metal/glass register that does not fog. For a faster and more comfortable readout the 620C/620MC is prepared for AMR.

Due to our broad product range of system solutions you can adapt the 620C/620MC to all your AMR needs.

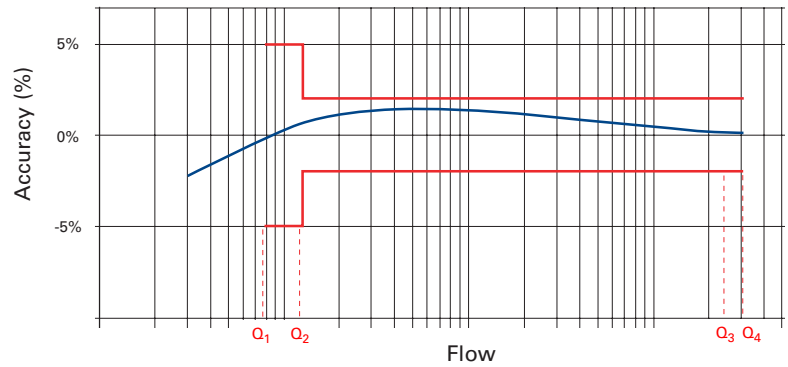
Not least by its tamper proof design and its long life span you can be confident in selecting the 620C/620MC.

Typical Marking



Markings can vary according different market or metrological specifications.

Typical Accuracy Curve



Accuracy and reliability

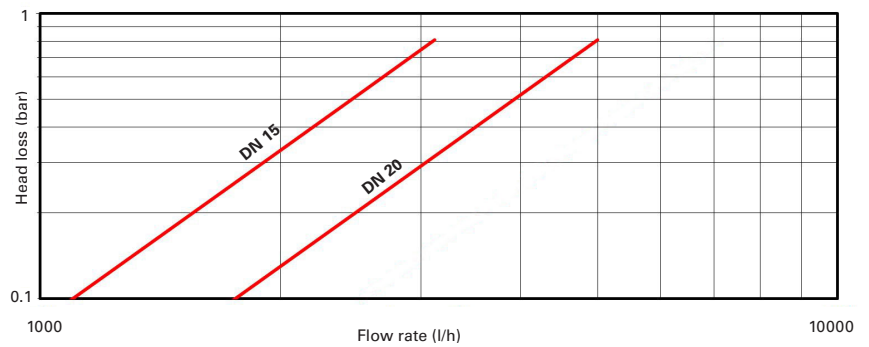
Thanks to the advanced design of its measuring chamber the meter has an extreme low starting flow.

It can be supplied with metrological seal according the MID regulation 2014/32/EU with a ratio R up to 400.

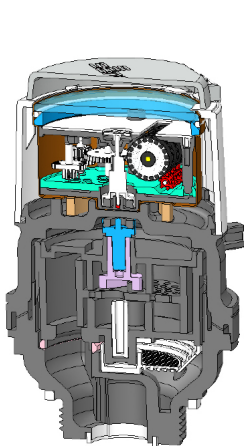
Foreign matter present in the water is filtered out by either the tubular strainer on the inlet or the seat strainer. Particles can go through the meter without damage; the patented elastic pivot enables the particles to pass between the piston and the measuring chamber. All the gears are situated in the dry register, which eliminates any risk of blockage due to suspended particles in the water.

The 620C/620MC water meter keeps its metrological accuracy for many years of operation, even in very difficult working conditions.

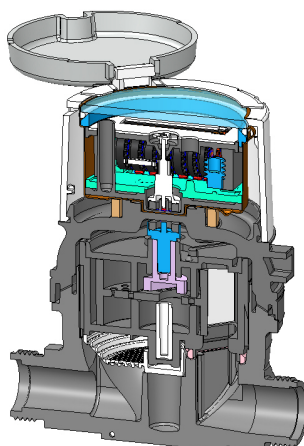
Typical Head Loss Curve



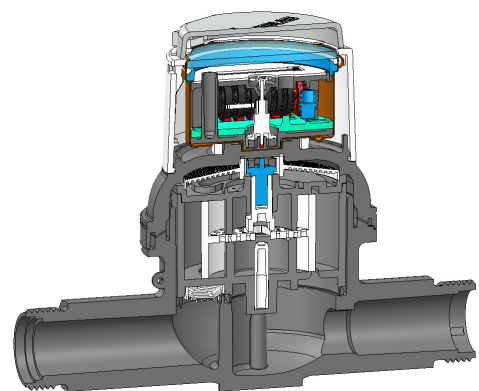
Cross Section



620MC



620C, DN 15



620C, DN 20

Approvals

EC type-examination certificate

in conformity with

- 2014/32/EU (MID)
- OIML R49:2013
- EN 14154:2005+A2:2011
- ISO 4064:2014

Q₃ 2.5 DE-07-MI001-PTB002

Q₃ 4 DE-09-MI001-PTB004

Certificate of compliance for potable drinking water

KTW/DVGW (D) ACS (F)

WRAS (UK) Hydrocheck (B)

KIWA ATA (NL)

Legibility

The display on 8 drums (5 for m³, 3 for litres) and 1 pointer ensures perfect readability. The lowest resolution is 0.05 litres. The dial has a central disc whose rotation indicates the passage of water. This indicator can be used to reveal a downstream leak.

The plastic dial is equipped with a wiper for optimum legibility under all conditions. The 620C/620MC water meter can operate in any position and its dry dial register can be rotated up to 350°. The dial can therefore be easily read under all conditions of use. As an option, the meter can be supplied with a metal/glass register, making it perfectly water-tight (IP 68).

Performance Data

Metrological characteristics in accordance with Measuring Instruments Directive

			Coaxial Manifold	inline	
Nominal Size	DN	mm	#	15	20
Permanent flowrate	Q ₃	m ³ /h	2.5	2.5	4
Ratio "R"	Q ₃ /Q ₁	R	40 / 80 / 160 / 315 / 400		
Maximum flowrate ⁽¹⁾	Q ₄	m ³ /h	3.125	3.125	5.0
Minimum flowrate ⁽¹⁾ (tolerance ±5%)	Q ₁	l/h	6.25	6.25	10.0
Transitional flowrate ⁽¹⁾ (tolerance ±2%)	Q ₂	l/h	10.0	10.0	16.0

⁽¹⁾ Values for R=400 ⁽²⁾ at R160

Dimensions and Weights

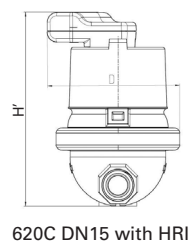
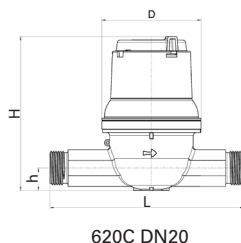
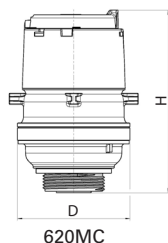
			Coaxial Manifold	inline	
Nominal Size	DN	mm	#	15	20
Length	L	mm		170 ⁽¹⁾	190 ⁽³⁾
Width	D	mm	87	87	97.2
Total height	H	mm	140.3	142.6	149
Total height with HRI	H'	mm	155.9	161.5	167.9
Height to pipe axis	h	mm		18.95	21.5
Tail Diameter		inch	G 1½" B	G ¾" B ⁽²⁾	G 1" B
Piece		mm	47.8	26.44	33.25
Thread Pitch			2.31	1.81	2.31
Weight		kg	0.5	0.6	0.68

⁽¹⁾ Also available in length 110, 115, 134 and 165 mm

⁽²⁾ Also available in length 165 and 190 mm with 1" threads

⁽³⁾ Also available in length 105, 165 and 220 mm

Dimensional Diagram



For the installation guidelines please refer to our website and the Volumetric Meter Manual.

Metrological characteristics

Nominal size		Coaxial Manifold	2.5 m ³ /h	4 m ³ /h
Connection size		#	DN 15	DN 20
Flow range	Q ₁	0.00625 m ³ /h	0.00625 m ³ /h	0.010 m ³ /h
	Q ₂	0.010 m ³ /h	0.010 m ³ /h	0.016 m ³ /h
	Q ₃	2.5 m ³ /h	2.5 m ³ /h	4 m ³ /h
	Q ₄	3.125 m ³ /h	3.125 m ³ /h	5 m ³ /h
	Q ₂ / Q ₁	1.6		
	Q ₃ / Q ₁	400*		
Accuracy class		± 2 % (Q ₂ ≤ Q ≤ Q ₄) for water temperatures ≤ 30 °C		
		± 3 % (Q ₂ ≤ Q ≤ Q ₄) for water temperatures > 30 °C		
		± 5 % (Q ₁ ≤ Q ≤ Q ₂)		
Temperature range		0.1 °C ... 50 °C		
Pressure range (MAP)		0.3 bar (0.03 MPa) - 16 bar (1.6 MPa)		
Pressure loss class ΔP		0.63 bar (0.063 MPa)		
Environmental class		I		
Mechanical Environmental Conditions		M2		
Climatic Environmental Conditions		5 °C ... 70 °C		
Electromagnetic Conditions		E2		

* further available ratios Q₃ / Q₁: 315, 250, 200, 160, 125, 100, 80, 63, 50, 40

HRI options

The dial of the meter is equipped as standard with a pointer able to activate the HRI sensor. By detecting the rotation of the pointer and its direction, the electronic circuitry of the HRI converts this into reliable electrical output signals.

There are two main variants of HRI:

1. HRI Pulse Unit (A-version)

This gives a pulse output which can be used for reliable counting of the volume.

2. HRI Data Unit (B-version)

The HRI Data Unit a is a data interface which supplies serial output according M-Bus standard EN13757 which can be connected to M-Bus converters.

The serial interface can also be used to configure a pulse output. This pulse output can be used alternatively to the serial output.

For more information please refer to the HRI datasheet.



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