

620C / 620MC

Volumetric Meter-Composite Body Dry Dial



Main characteristics

- DN 15 to 20 and Coax, MAP 16, T50 (temperature range 0.1 to 50 °C)
- Light and robust
- Easy to handle
- Meets current and anticipated regulations for potable water
- 33% lower carbon footprint than equivalent brass meters
- High resistance to impurities and aggressive water
- Quiet operation

FEATURES

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.

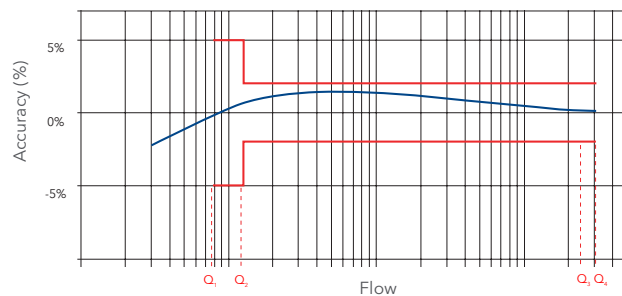
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Volumetric Meter - Composite Body, Dry Dial

Typical Marking

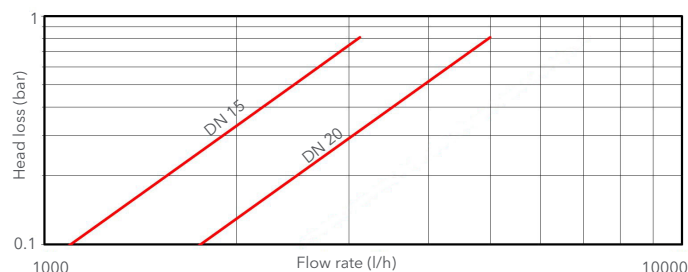


Typical Accuracy Curve



Markings can vary according different market or metrological specifications.

Typical Head Loss Curve



Accuracy and reliability

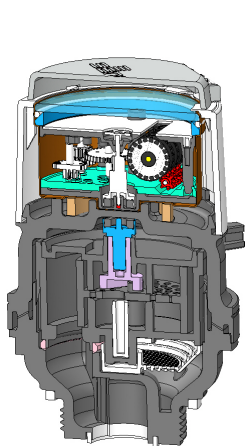
Thanks to the advanced design of its measuring chamber the meter has an extreme low starting flow.

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

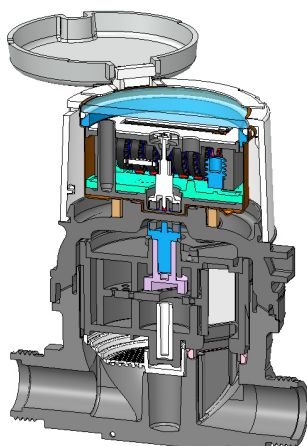
Foreign matter present in the water is filtered out by either the tubular strainer on the inlet or the seat strainer. Particles can go through the meter without damage; the patented elastic pivot enables the particles to pass between the piston and the measuring chamber. All the gears are situated in 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.

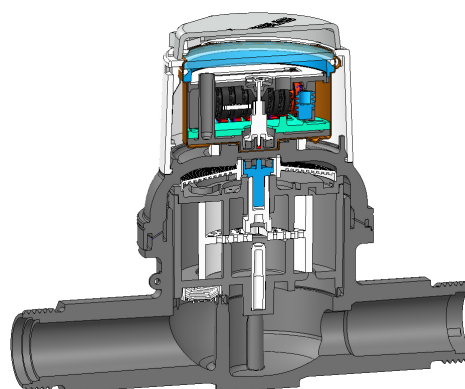
Cross Section



620MC



620C, DN15



620C, DN 20

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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)
- KIWA ATA (NL)
- Hydrocheck (B)

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

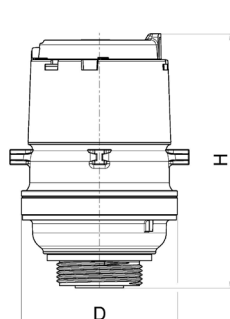
			Coaxial Manifold	inline	
Nominal Size	DN	mm	#	15	20
Length	L	mm		170 ⁽¹⁾	190 ⁽³⁾
Width	D	mm	87	87	97.2
Total height	H	mm	140.3	142.6	149
Total height with HRI	H'	mm	155.9	161.5	167.9
Height to pipe axis	h	mm		18.95	21.5
Tail Diameter	inch		G 1½" B	G ¾" B ⁽²⁾	G 1" B
Piece		mm	47.8	26.44	33.25
Thread Pitch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

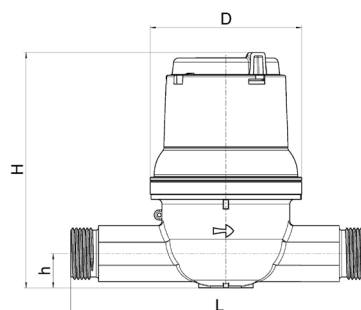
(2) Also available in length 165 and 190 mm with 1" threads

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

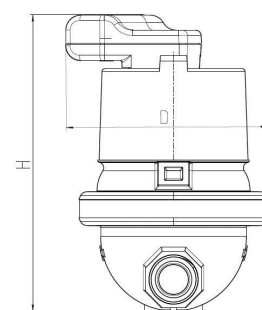
Dimensional Diagram



620MC



620C DN20



620C DN15 with HRI

For the installation guidelines please refer to the manual "Volumetric Meter Manual" on our website.

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METROLOGICAL DATA

Nominal size		Coaxial Manifold	2.5 m³/h	4 m³/h
Connection size		#	DN 15	DN 20
Flow range	Q ₁	0.00625 m³/h	0.00625 m³/h	0.010 m³/h
	Q ₂	0.010 m³/h	0.010 m³/h	0.016 m³/h
	Q ₃	2.5 m³/h	2.5 m³/h	4 m³/h
	Q ₄	3.125 m³/h	3.125 m³/h	5 m³/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, which is prepared to be scanned with compatible modules such as HRI or CompactRF. This inductive scanning is extremely robust and also takes the flow direction into account. This ensures that the counter reading of the mechanical dial is accurately reproduced. The HRI provides a reliable pulse or data interface for both mobile and remote reading. The HRI or Sensus CompactRF can be field mounted to already installed Sensus water meters, or ordered factory mounted to the meter.

For more information, please refer to the HRI, Sensus CompactRF and Sensus PulseRF module data sheets.

The HRI is available in two variants:

1. HRI-A Pulse Unit

The resolution of the input pulses is 1 liter per pulse. Different versions of the HRI-A with fixed output pulse values are available.

2. HRI-B Data Unit

The HRI data unit integrates a data interface. The meter reading as well as the serial number can be read out via an M-Bus network according to EN 13757. Alternatively, the pulse output can be used. This can be configured via the data interface.

3. Sensus CompactRF and Sensus PulseRF-A3 radio modules

a. Sensus CompactRF

The module can be placed on the meter and thus forms a meter with radio module

b. Sensus PulseRF-A3

The pulse pickup is placed on the meter. The actual radio module is connected with a cable and allows remote operation, e.g. to enable a secure radio connection in difficult radio conditions.



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UK & Ireland Inquiries | Sensus UK Systems Ltd. | 3 Lindenwood Crockford Lane, Chineham Business Park | Basingstoke RG24 8QY UK | +44 1256 372800 | info.gb@xylem.com

International Inquiries | Sensus GmbH Hannover | Meineckestr. 10 | 30880 Laatzen | Germany | +49 5102 743177
info.int@xylem.com

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