

620C/ 620MC

Volumetric Meter-Composite Body
Dry Dial



Main characteristics

DN 15 and 20, PN16

Light and easy to handle

Compatibility with all new and planned regulations for potable water

Installation with or without meter bracket

Unrivalled accuracy and measuring range

High resistance to impurities and aggressive water

Quiet operation

Available with EEC and MID approvals

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.

Accuracy and reliability

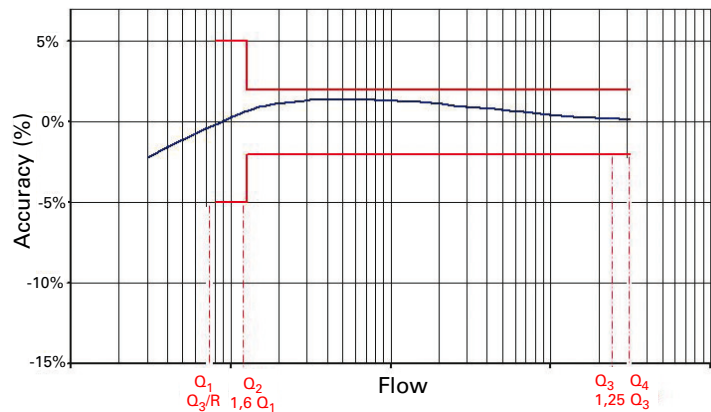
Thanks to the advanced design of its measuring chamber the meter has an extreme low starting flow.

It can be supplied with metrological seal according the old European directive 75/33/EC up to class C as well as according the new MID regulation 2004/22/EC with a ratio R up to 400.

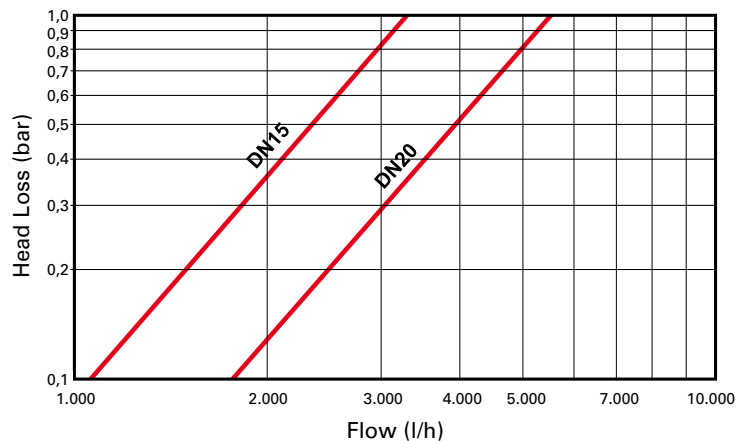
Foreign matter present in the water is filtered out by either the tubular strainer on the inlet or the seat strainer. Particles can go through the meter without damage; the patented elastic pivot enables the particles to pass between the piston and the measuring chamber. All the gears are situated in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



Typical Headloss Curve



Cross Section



Approvals

EEC pattern approval

in conformity with

- 75/33/EEC
- 71/316/EEC

DN 15 & 20 D02/6.123.11

EC type-examination certificate

in conformity with

- 2004/22/EC (MID)
- EN 14154:2007
- OIML R49:2006
- ISO 4064:2005

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)

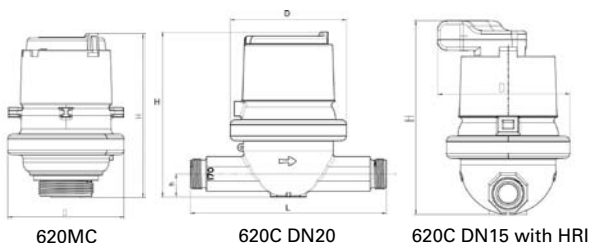
WRAS (UK) Hydrocheck (B)

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)

Dimensional Diagram



For the installation guidelines please refer to our website and the manual MD 1001 INT.

Performance Data

Metrological Characteristics - EEC Directive 75/33

| Nominal Size | DN | mm | in-line | | Coaxial Manifold |
|---|------------------|-------------------|---------|------|------------------|
| | | | 15 | 20 | |
| Nominal flowrate | Q _n | m ³ /h | 1.5 | 2.5 | 1.5 |
| Maximum flowrate ⁽¹⁾ | Q _{max} | m ³ /h | 3.0 | 5.0 | 3 |
| Minimum flowrate ⁽¹⁾ (tolerance ±5%) | Q _{min} | l/h | 15.0 | 25.0 | 15 |
| Transitional flowrate ⁽¹⁾ (tolerance ±2%) | Q _t | l/h | 22.5 | 37.5 | 22.5 |

(1) Values for Class C

Metrological characteristics - Directive 2004/22/EC (MID) & EN 14154:2007

| Nominal Size | DN | mm | in-line | | Coaxial Manifold |
|--------------------------------------|--------------------------------|-------------------|---------------------------|------|------------------|
| | | | 15 | 20 | |
| Permanent flowrate | Q3 | m ³ /h | 2.5 | 4 | 2.5 |
| Ratio "R" | Q ₃ /Q ₁ | R | 40 / 80 / 160 / 315 / 400 | | |
| Maximum flowrate ⁽¹⁾ | Q ₄ | m ³ /h | 3.125 | 5.0 | 3.125 |
| Minimum flowrate ⁽¹⁾ | Q ₁ | l/h | 6.25 | 10.0 | 6.25 |
| Transitional flowrate ⁽¹⁾ | Q ₂ | l/h | 10.0 | 16.0 | 10 |

(1) Values for R=400

Optional Characteristics (manufacturer's data)

| Nominal Size | DN | mm | in-line | | Coaxial Manifold |
|---|----|----------------|-----------------|-----|------------------|
| | | | 15 | 20 | |
| Starting flowrate ⁽¹⁾ | | l/h | <1 | <2 | <1 |
| Minimum flowrate +/- 5% ⁽¹⁾ | | | 3 | 6 | 3 |
| Transitional flowrate +/- 2% ⁽¹⁾ | | | 5 | 12 | 5 |
| Maximum registration | | m ³ | 10 ⁵ | | |
| Lowest resolution | | litre | 0.05 | | |
| Pressure loss at Q _{max} | | bar | 0.7 | 0.5 | 0.7 |
| Pressure class | PN | bar | 16 | | |

(1) Typical performance characteristics

Dimensions and Weights

| Nominal Size | DN | mm | in-line | | Coaxial Manifold |
|---------------------|----------|------|-------------------------|--------------------|------------------|
| | | | 15 | 20 | |
| Length | L | mm | 170 ⁽¹⁾ | 190 ⁽³⁾ | |
| Width | D | mm | 101.7 | 113.5 | 101.7 |
| Total height | H | mm | 142.6 | 149 | 140.3 |
| Height to pipe axis | h | mm | 18.95 | 21.5 | |
| Tail piece | Diameter | inch | G 3/4" B ⁽²⁾ | G 1" B | G1 1/2" B |
| | | mm | 26.44 | 33.25 | 47.8 |
| thread | Pitch | | 1.81 | 2.31 | 2.31 |
| | | | | | |
| Weight | | kg | 0.6 | 0.68 | 0.5 |

(1) Also available in length 110/114/115/130/134 and 165mm

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

(3) Also available in length 165 and 220mm

HRI options

The dial of the 620C/620MC meter is equipped as standard with a pointer able to activate the HRI sensor. The HRI reproduces the mechanical register index exactly, by detecting the direction of rotation of the pointer. It provides a reliable pulse and data interface for remote and mobile readout. The HRI can be fitted on site to already installed Sentinel water meters or ordered factory fitted to the meter.

For more information refer to the leaflets
LS 8100 and LS 3300



The HRI is available in three versions:

1. HRI Pulse Unit (A-version)

The litre pointer activates the HRI allowing a basic resolution of one litre per pulse. The output pulse value can be factory set using the divisor D

(e.g. D = 100 means 1 pulse per 100 litres).

The possible pulse output D values are:

1 / 10 / 100 / 1000 / 2.5 / 25 / 250

2. HRI Data Unit (B-version)

The HRI Data Unit is a data interface which supplies the meter reading as well as the serial or customer number. This version additionally provides a pulse output as described above. The HRI Data Unit can be connected to an M-Bus network for remote read or a MiniPad for mobile inductive read (MiniBus), both in accordance with the IEC 870 protocol.



3. Sensus((S))cout-S Radio Unit

Integrated Sensus((S))cout radio with the usage of long term proven and reliable HRI sensing technology. Radio read is made via the handheld Psion WA pro and Dokom mobile (WinCE) software

4. Opto-Encoder 630C

A version with opto-encoder for M-Bus or MiniBus interface is also available.

Main benefits are battery free design and absolute reading for perfect matching of remote reading with index.

Refer to datasheet code LS 8500.



For further information please contact your Sensus sales office.



Certified according to ISO 9001
Quality Management System OQS Reg.no. 3496/0

UK & Ireland Enquiries

Sensus Metering Systems 11 The Quadrangle, Abbey Park, Romsey, Hampshire SO51 9DL UK
T: +44 (0) 1794 526100 F: +44 (0) 1794 526101 Email: info.gb@sensus.com www.sensus.com

International Enquiries

Sensus GmbH Ludwigshafen Industriestrasse 16, 67063 Ludwigshafen Germany
T: +49 (0) 621-6904-0 F: +49 (0) 621-6904-1409 Email: info.int@sensus.com www.sensus.com

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