

620

Volumetric Meter Dry Dial



Main Features

- DN 15 to 40, PN 16
- Small pressure drop
- High resistance to impurities
- Quiet operation
- Suitable for cold water from 0.1 °C up to 50 °C

Available options

- HRI electronic sensor (Pulse Unit, Data Unit)
- Connectors
- Non-return valve
- Plastic and metal/glass register

APPLICATIONS

The 620 is a high precision meter.

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

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 620 is prepared for AMR.

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

Not least by its tamper proof design and its long life span you will be glad you used the 620.

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Typical Marking



Markings can vary according different market or metrological specifications.

Accuracy and reliability

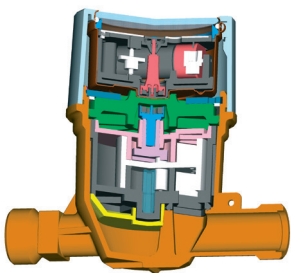
Thanks to the advanced design of its measuring chamber the meter has an extreme low starting flow.

It can be supplied with metrological seal according the MID regulation 2014/32/EU with a ratio R up to 315 (Q_3 2.5 up to R400).

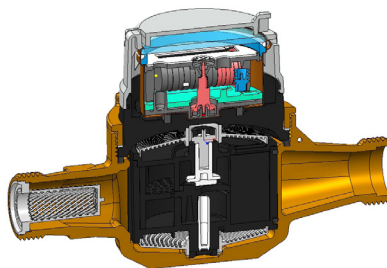
Foreign matter present in the water is filtered out by either the tubular strainer on the inlet or the seat strainer. Particles can go through the meter without damage; the patented elastic pivot enables the particles to pass between the piston and the measuring chamber. All the gears are situated in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

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

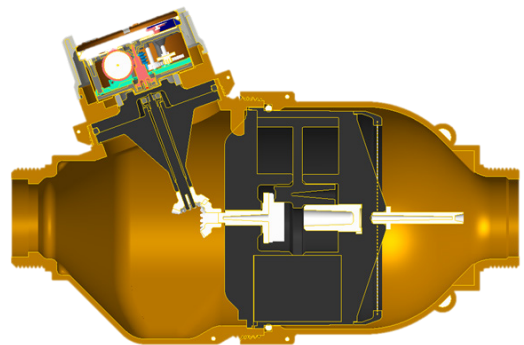
Cross Section



620, DN 15

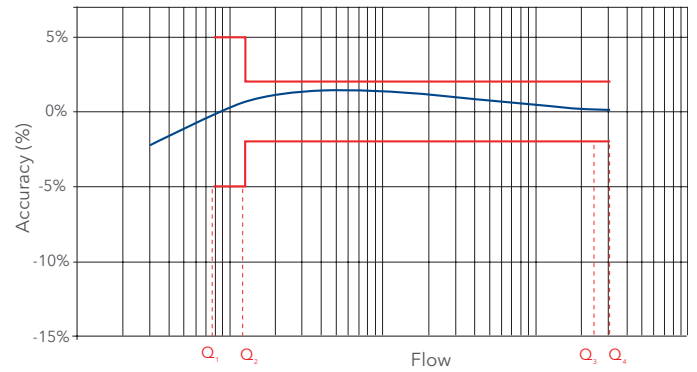


620, DN 20

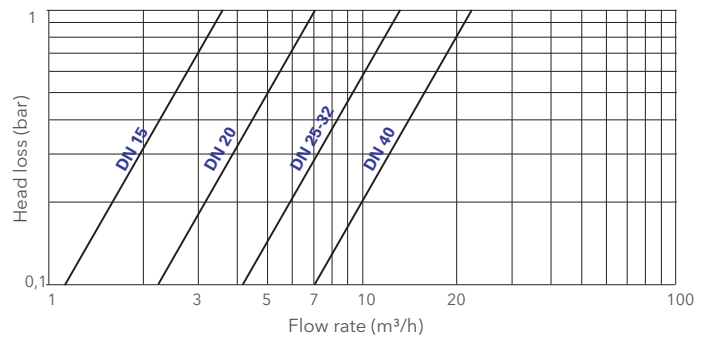


620, DN 25, DN 32 and DN 40

Typical Accuracy Curve



Typical Head Loss Curve



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Approvals

EC type-examination certificate

in conformity with

- 2014/32/EU (MID)
- OIML R49:2013
- EN 14154-4:2014
- ISO 4064:2017

Q₃ 2.5 DE-07-MI001-PTB002

Q₃ 4 DE-07-MI001-PTB004

Q₃ 6.3 - 16 DE-15-MI001-PTB019

Certificate of compliance for potable drinking water

in conformity with

- 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 620 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							
Nominal size	DN	mm	15	20	25	32	40
Permanent flow rate	Q ₃	m ³ /h	2.5	4	6.3	10	16
Ratio "R"	Q ₃ Q ₁	R	400		315		
Maximum flowrate ⁽¹⁾	Q ₄	m ³ /h	3.125	5	7.875	12.5	20
Minimum flowrate ⁽¹⁾ (tolerance ±5%)	Q ₁	l/h	6.25	10.00	20	31.75	50.79
Transitional flowrate ⁽¹⁾ (tolerance ±2%)	Q ₂	l/h	10.00	16.00	32	50.79	81.27

(1) Values for R=400 for DN 15-20 and R=315 for DN 25-32

DIMENSIONS AND WEIGHTS

Nominal size DN		mm	15	20	25	30	40
Length	L	mm	170 ⁽¹⁾	190 ⁽³⁾	260 ⁽⁴⁾	260	300
Width	B	mm	79.7	93.5	135	135	150
Total height	H	mm	132.7	123	186	186	193
Height to pipe axis	h	mm	15.5	37.5	68	68	75
Tail		inch	G¾"B ⁽²⁾	G1"B	G1¼"B	G1½"B	G2"B
Piece	Diameter	mm	26.44	33.25	41.91	47.80	59.61
Thread	Pitch	mm	1.81	2.31	2.31	2.31	2.31
Weight		kg	1.0	1.6	3.7	3.8	5.0

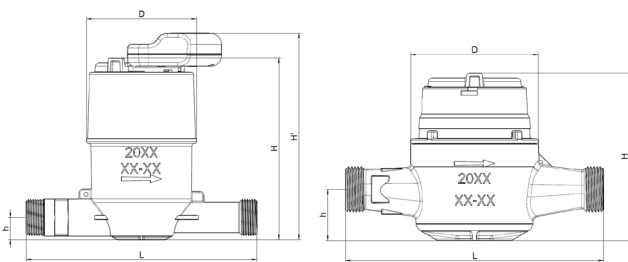
(1) Also available in length 110, 115, 134 and 165 mm

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

(3) Also available in length 130 and 165 mm

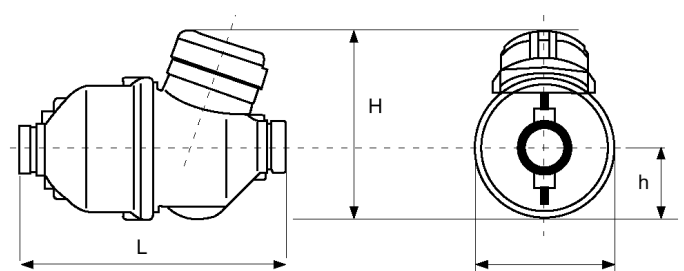
(4) Also available in length 198 mm (with Q₃ 4)

Dimensional Diagram



620, DN 15 with HRI

620, DN 20



620, DN 25, DN 32 and DN 40

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

METROLOGICAL DATA

Nominal size		2.5 m ³ /h	4 m ³ /h	6.3 m ³ /h	10 m ³ /h	16 m ³ /h
Connection size		DN 15	DN20	DN 25	DN 25, DN 32	DN 40
Flow range	Q ₁	0.00625 m ³ /h	0.010 m ³ /h	0.020 m ³ /h	0.032 m ³ /h	0.051 m ³ /h
	Q ₂	0.010 m ³ /h	0.016 m ³ /h	0.032 m ³ /h	0.051m ³ /h	0.081 m ³ /h
	Q ₃	2.5 m ³ /h	4 m ³ /h	6.3 m ³ /h	10 m ³ /h	16 m ³ /h
	Q ₄	3.125 m ³ /h	5 m ³ /h	7.875 m ³ /h	12.5 m ³ /h	20 m ³ /h
	Q ₂ / Q ₁	1.6				
	Q ₃ / Q ₁	400*			315**	
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

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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.