

620

Volumetric Meter Dry Dial



Main characteristics

DN 15 to 40, PN 16

Unrivalled accuracy and measuring range

Small pressure drop

High resistance to impurities

Quiet operation

Suitable for cold water from 0.1 °C up to 50 °C

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.

Available options

HRI electronic sensor (Pulse Unit, Data Unit)

Connectors

Non-return valve

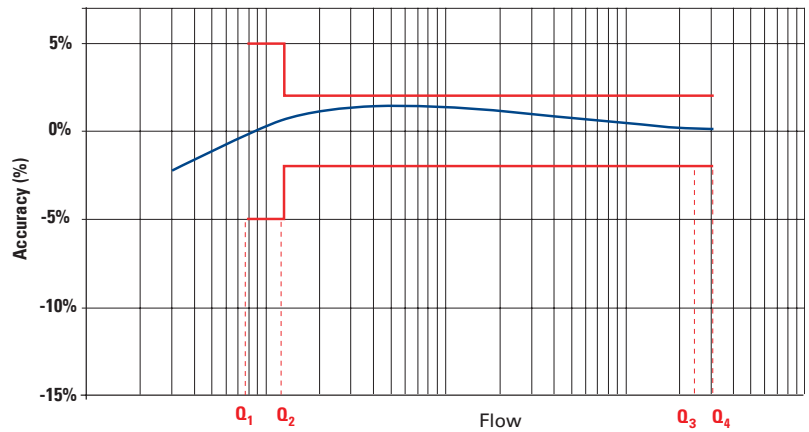
Plastic and metal/glass register

Typical Marking



Markings can vary according different market or metrological specifications.

Typical Accuracy Curve



Accuracy and reliability

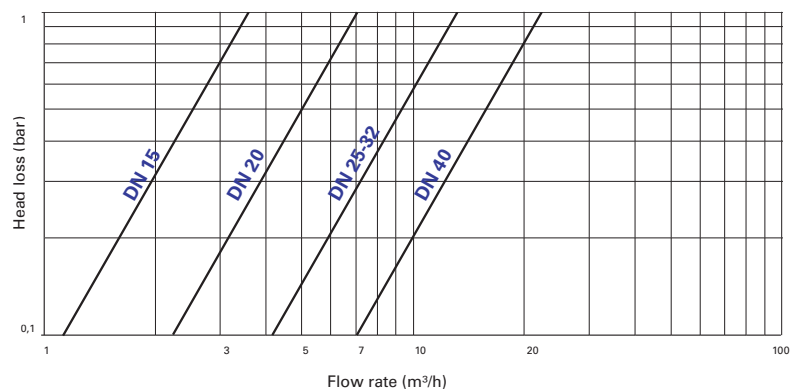
Thanks to the advanced design of its measuring chamber the meter has an extreme low starting flow.

It can be supplied with metrological seal according the MID regulation 2004/22/EC with a ratio R up to 315 (Q_3 2.5 up to R400).

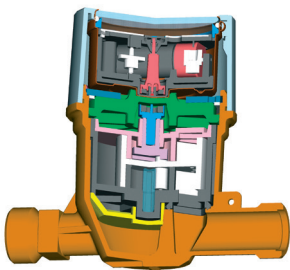
Foreign matter present in the water is filtered out by either the tubular strainer on the inlet or the seat strainer. Particles can go through the meter without damage; the patented elastic pivot enables the particles to pass between the piston and the measuring chamber. All the gears are situated in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

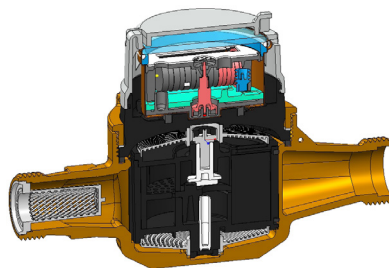
Typical Head Loss Curve



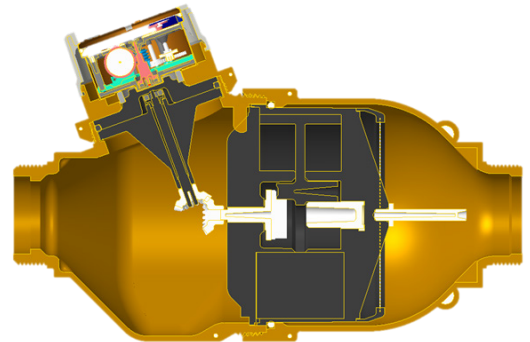
Cross Section



620, DN 15



620, DN 20



620, DN 25, DN 32 and DN 40

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-07-MI001-PTB004

Q₃ 6,3 - 16 DE-15-MI001-PTB019

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⁽¹⁾ 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 flowrate	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	32	40
Length	L	mm	170 ⁽¹⁾	190 ⁽³⁾	260 ⁽⁴⁾	260	300
Width	D	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	Diameter	inch	G¾"B ⁽²⁾	G1"B	G1¼"B	G1½"B	G2"B
Piece		mm	26.44	33.25	41.91	47.80	59.61
Thread	Pitch		1.81	2.31	2.31	2.31	2.31
Weight		kg	1.0	1.6	3.7	3.8	5.0

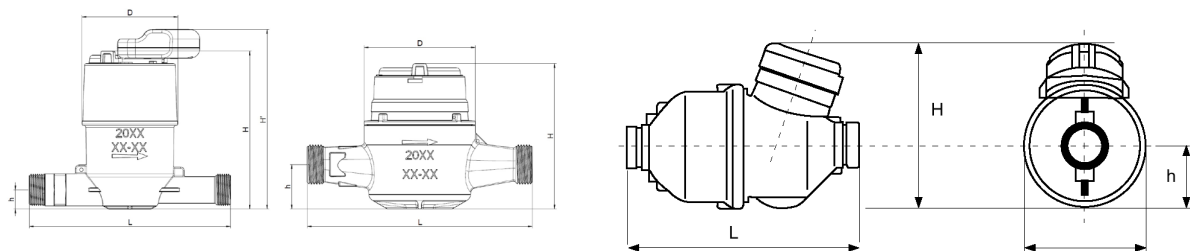
⁽¹⁾ Also available in length 110, 115, 134 and 165 mm

⁽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 characteristics

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	0.051 m 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 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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