

820

Single jet water meter Semi dry protected register



Main characteristics

DN 15 to 20 PN16

- Semi dry protected register
- High resistance to foreign bodies
- Large measuring range
- Small pressure loss
- Noiseless operation
- Can be retro-fitted with the HRI pulser
- Available with MID approvals

Applications

High accuracy metering of water containing solid particles is now possible, regardless of installation position

Due to its exclusive patented hydrodynamic balancing system, the 820 meter is the first velocity meter approved in R200 for horizontal and R160 for vertical position.

The 820 meter is the perfect solution for ensuring accurate and reliable metering regardless of installation and operating conditions

Available options

HRI electronic sensor (Pulse Unit, Data Unit)

Pipe to meter couplings

Non-return valve

Accuracy

With the perfect control of the production process, the accuracy curve of the 820 meter is exceptional. Effectively, its tolerance margins are very narrow and the measurement range is very wide, through the entire range of flowrates.

Reliability

An inlet strainer prevents large water-borne foreign particles (stones, plastic parts) from entering the meter.

The design of the measuring element limits the circulation of the water between the bottom of the meter and the totalizer.

Most of the solid particles in suspension therefore go directly from the inlet to the outlet between the blades of the impeller. Moreover, the most sensitive elements of the water meter (the wheels, the cubic decimetre pointer and the transmission worm gear) are protected by the glycerine solution. These features give the 820 meter mechanism an excellent protection against any foreign bodies.

The innovative design and the use of high quality materials guarantee a long service life and stable performance, even in poor operating conditions. As an example, the turbine pivots on two very hard synthetic sapphire rings between two stainless steel shafts, giving extremely low friction and wear.

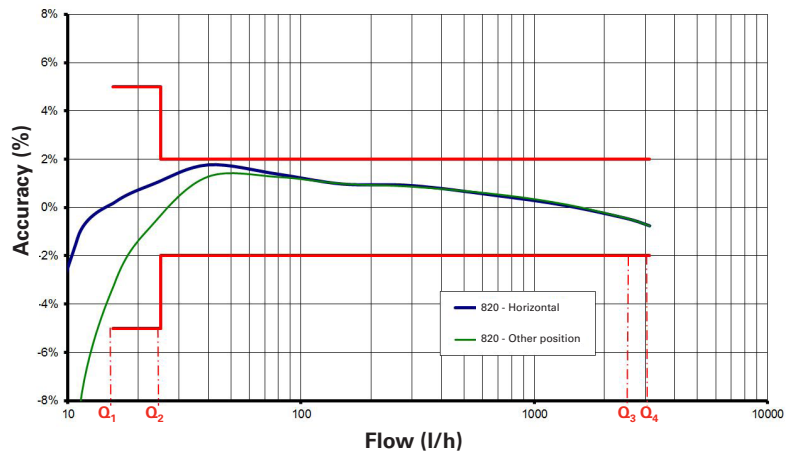
Legibility

The 5 wheels and the first pointer of the totalizer are protected from the network water by a capsule filled with a glycerine solution. The meter remains clearly readable, with no risk of deposits or condensation.

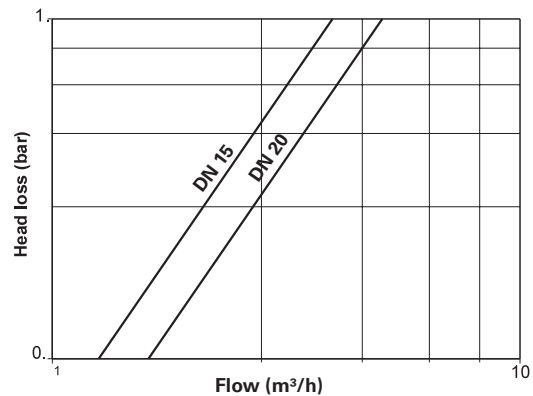
It is equipped with a 355° swivelling lid and sealing ring.

The lowest reading unit is 0.05 litres, which enables testing times to be reduced.

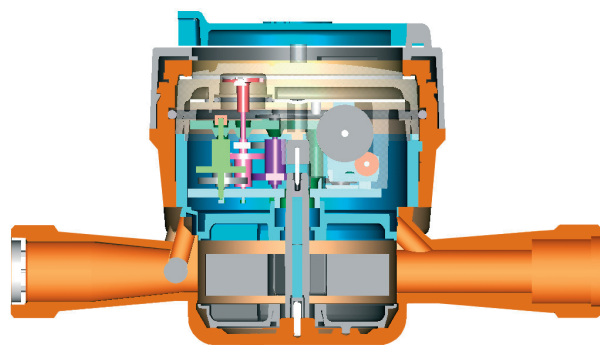
Typical Accuracy Curve



Typical Pressure Drop Curve



Cross Section



Approvals

EC type-examination certificate

in conformity with

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

Q₃2,5 DE-10-MI001-PTB008

Q₃4 DE-09-MI001-PTB002

Metrological Characteristics

Metrological characteristics

Directive 2014/32/EU (MID), EN 14154-4:2014 & ISO 4064:2017

Nominal size	DN (Qn)	mm	15	20
Permanent flow rate	Q ₃		2.5	4
Ratio "R"	Q ₃ /Q ₁	R	R200 Horizontal R160 Vertical	R250 Horizontal R160 Vertical
Maximum flow rate	Q ₄	m ³ /h	3.125	5
Minimum flow rate ⁽¹⁾ (tolerance ±5%)	Q ₁	l/h	15.6	25
Transitional flow rate ⁽¹⁾ (tolerance ±2%)	Q ₂	l/h	25	40

(1) Values for R160

Marking

Arrows on the meter body indicate the direction of flow.

The year of production and the meter number are engraved on the sealing ring.

Manufacturers mark, name of model, nominal flowrate, Ratio, MID approval number are printed on the dial.

Dimensions and Weights

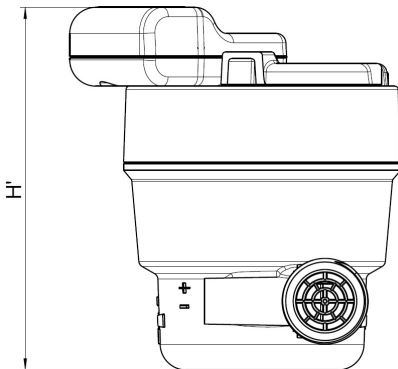
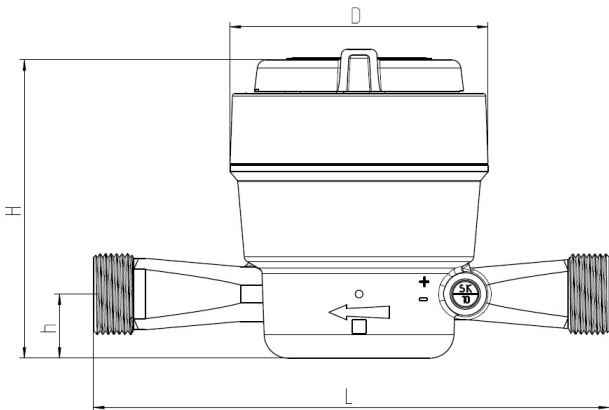
Dimensional characteristics

Nominal size	DN (Qn)	mm	15	20
Length	L	mm	170 ⁽¹⁾	190 ⁽²⁾
Width	W	mm	85.1	85.1
Total height	H	mm	91.5	91.5
Total height with HRI	H'	mm	116	116
Height to pipe axis	h	mm	21.8	21.8
Tail		inch	G ³ / ₄ "B ⁽²⁾	G1"B
Piece	Diameter	mm	26.44	33.25
Thread	Pitch		1.81	2.31
Weight		kg	1.05	1.15

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

(2) also available in length 110, 115 and 165 mm

Dimensional Diagram



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.

