

Ultrasonic Watermeter USWM

Domestic Water Meter DN 15-40



USWM is an innovative , accurate and reliable ultrasonic water meter

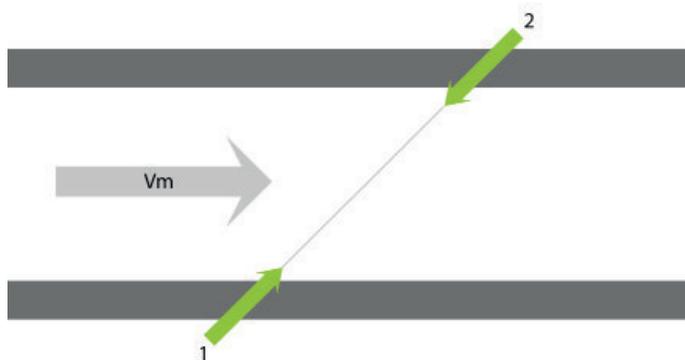
USWM is an innovative, high-precision, maintenance-free - water meter equipped with the latest ultrasonic technology to read the water consumption in all areas of water supply.

The ultrasonic water meters have no moving parts, due to this fact the water meters are maintenance-free.

The ultrasonic meter can be read remotely and offers wired M-BUS interface for read-out.

Measuring principle of ultrasonic meters :

The USWM water meter sends out ultrasonic waves. An ultrasonic wave in the same direction of water flow and one against the water flow. The ultrasonic wave that is sent in the same direction of water flow, is faster than that which was sent against the water flow. The flow times (from sensor 1 to sensor 2 and vice versa) are measured continuously. The time difference is directly proportional to the real flow velocity (V_m). The flow rate is thus a result of the velocity which is multiplied by the size of the meter.



Applications:

Water companies, waternetwork- grid providers, industrial and agricultural applications

Technical characteristics:

- High quality and long term reliability
- Robust mechanical design - IP68
- Insensitive to sediments and particulate material in water
- No magnetic interference
- Interface for for remote meter reading
- Battery life approximately 10 years
- LCD display

Technical Specification:

Operational Pressure:	from 0,3 to 16 bar
Pressure Class:	MAP16
Temperature range:	T50
Accuracy class:	Class 2
Mechanical class:	M1
Electromagnetic class:	E1
Power supply:	Li-Battery / approx. 10 years
Display:	integrated to unit
Protection:	IP 68



VERAUT - VERFAHRENS- und AUTOMATIONSTECHNIK GmbH
A-4020 Linz / Austria , Derfflingerstr. 14/C/3

Web: www.veraut.at , Email: info@veraut.at , Tel: +43 732 386361-0 , Fax: +43 732 386361-20

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Interface:

- wired M-BUS or
- RF wireless M-BUS T1 (optional)

Dimension:

DN15 DN20 DN25 DN32 DN40

L_{length}: 130 130 180 180 200



Performance:

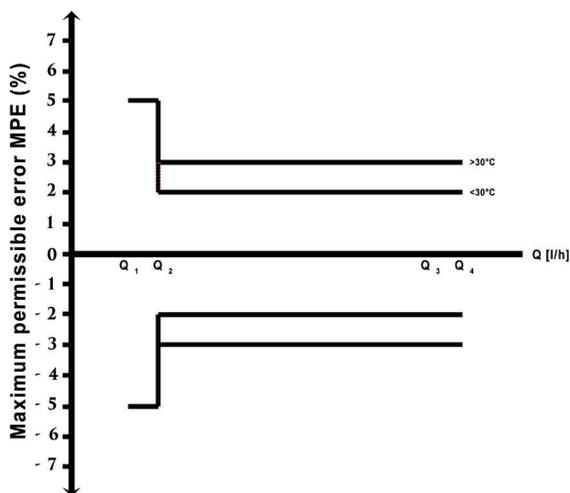
	DN15	DN20	DN25	DN32	DN40
Q ₁ (m ³ /h)	0,008	0,0127	0,02	0,0317	0,0794
Q ₂ (m ³ /h)	0,0128	0,02	0,032	0,0508	0,127
Q ₃ (m ³ /h)	2,5	4	6,3	10	25
Q ₄ (m ³ /h)	3,125	5	7,875	12,5	31,25

$$Q_3 / Q_1: \leq 400$$

$$Q_2 / Q_1: 1,6$$

$$Q_4 / Q_3: 1,25$$

Maximum permissible error MPE:



MPE: <30°C : +/- 2%
>30°C: +/- 3%

Certificates:

MID 2004/32/EU



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