

Wall Mountable WM 400

The Permanent
Ultrasonic Flow Meter
for the Water Industries



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The Ideal Permanent Meter Solution for the Water Industry

Designed & manufactured for the needs of the Water Industry, the Senapsis WM 400 is the ideal solution for many permanent flow metering applications found in the water distribution sector and adjacent industries.

The WM 400 offers a precise bi-directional flow measurement over a wide range of high and low flows. We pair and match the sensor transducers to each unit which helps ensure higher accuracy and a superior zero stability.

The WM 400 comes as standard with IP68 sensors, making it the ideal solution for ever increasing tough environments. When linked to central control and monitoring systems, the WM 400 with its high reading repeatability offers the possibility for leak detection. Especially at night, when temperatures are more stable and only low flow velocities are common in drinking water lines.

The WM 400 is the ideal retrofit solution for water pipes in existing water networks, its non-invasive and easily clamps on to the water pipe. There is no need for costly shaft constructions, cutting and welding, all causing interruptions to supply lines. This makes the WM 400 a very cost effective and easy to implement solution in comparison to conventional metering technologies such as magnetic inductive meters.

“Reliably refined by over 25 years of experience”



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The Main Advantages

- Non-Invasive, Non-Corrosive, Noncontact – Will not damage critical pipe infrastructure over time (No Galvanic Action)
- Easy to use with corrosive liquids –Does not contaminate sterile liquids
- Does not obstruct flow – Cannot break off in fluid damaging other critical infrastructure such as pumps
- Easy and quick to install – Do not need to carry out engineering works to cut, or drill pipe
- Can be setup and running in 5 mins
- Fast sampling rate – Increased Accuracy
- No moving parts – to fail or require maintenance

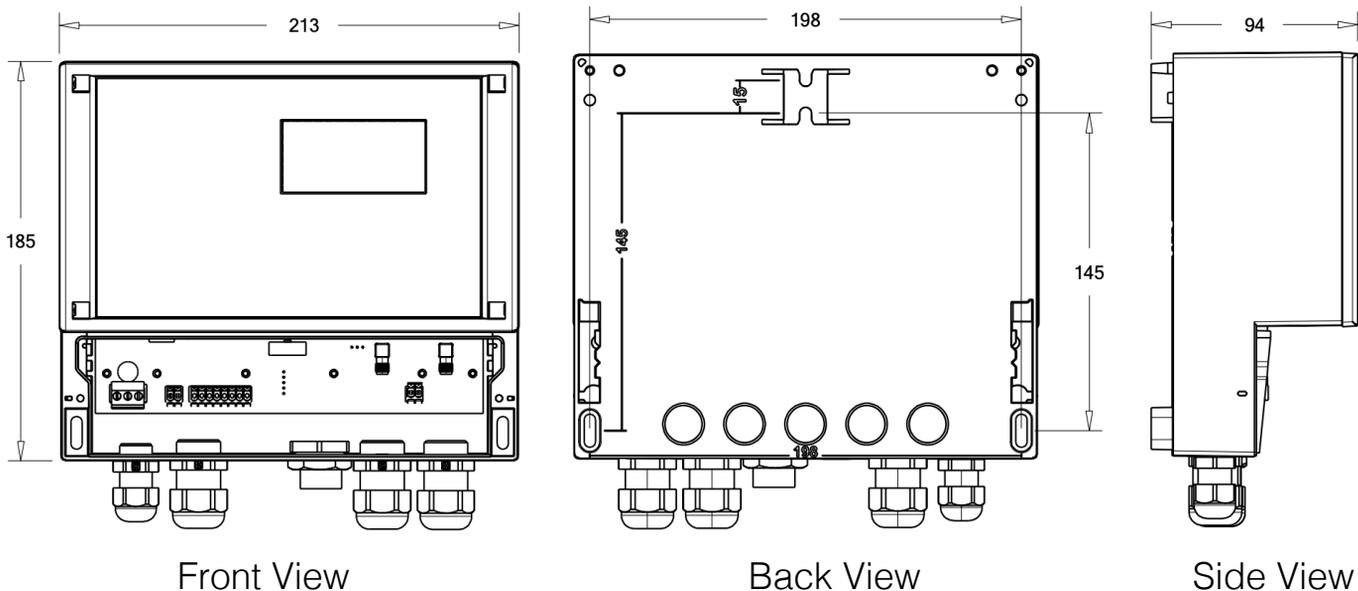
Applications:

- District Water Monitoring
- Energy Flow Surveys
- Portable Water Treatment
- HVAC Audits
- Leakage Detection
- Flowmeter Verification
- Filter Sizing
- Pump Verification
- Fire Systems Testing
- Boiler Testing & Optimisation
- Phase Detection (E.g. CIP Evaluation & Control)

Technical Data

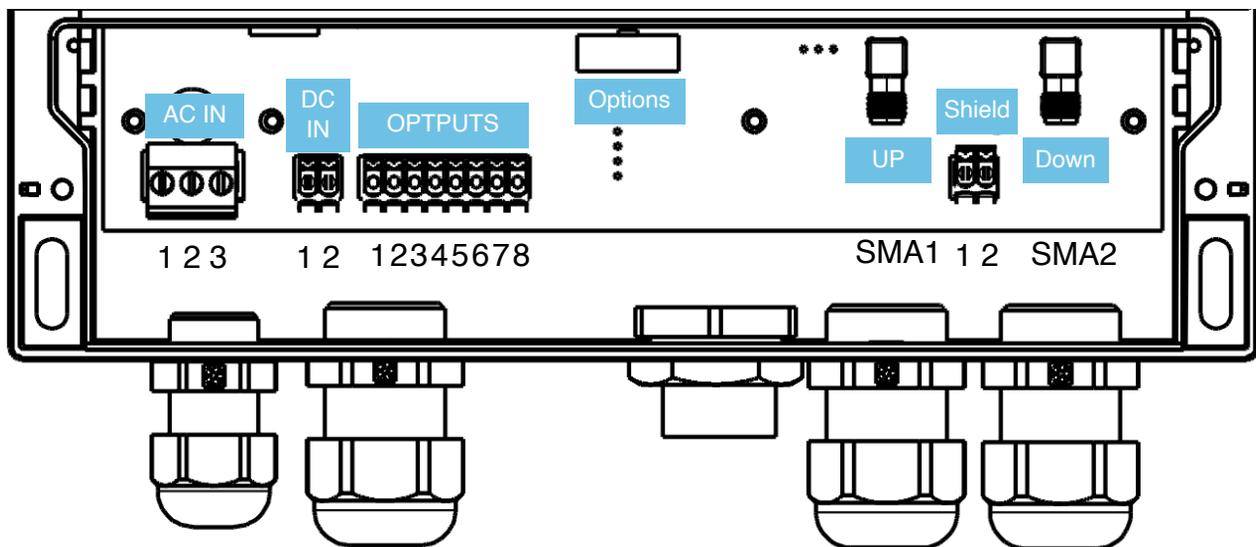
No of Input Channels	1 (2 Sensors)
Pipe Diameters	15 mm to 5,000+ mm
Input Options	Flow Sensors, Thickness Gauge, Temperature Sensors
Accuracy	± 1-2% of Reading
Flow Velocity Range	Up to 25 m/sec
Input Supply	85-240V a/c
Outputs	RS232, 4-20mA, USB, Relay (Pulse/Freq)
Temperature Rating	-40 to +120 °C (Sensors) -10 to +50 °C (Meter Enclosure)
Logging	N/A – Permanent Logging - Mains power
IP Ratings	IP65 Meter Enclosure, IP68 Sensors

Mechanical Data



Connections Data

Front Panel Cover Removed



AC IN	N/A	1
	Live	2
	Neutral	3
OUTPUTS	4-20mA OUT +	1
	4-20mA OUT -	2
	GND	3
	Frequency OUT F+	4
	Frequency OUT F-	5
	GND	6
	RS232 RX	7
RS232 TX	8	

DC IN	DC GND	1
	DC +ve (6.5-30V DC)	2

UP	Upstream Sensor SMA	
DOWN	Downstream Sensor SM	
Shield	Up Shield	1
	Down Shield	2
Options	Reserved for optional plugins such as dual temperature board for energy flow	

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