WIN Water Inline Ultrasonic Flow Meter

Common Uses

WIN Meters are designed to accurately measure the flow of water and water/glycol solutions in pipe sizes from ½" – 2½" in diameter. The no-moving-parts design operates over a wide flow range with excellent low flow performance. The WIN water inline flow meter is ideal for flow monitoring applications such as:

- Chillers
- Water Heaters
- Heat Exchangers
- Water Supply Lines
- Coolant Loops

Technical Specifications

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Overall Flow Range	500:1 turndown
7 Flow Ranges	0.06 to 250 gpm (across all meter sizes)
Measuring Accuracy	±1.0% of reading over 25:1 turndown, ±2.0% of reading over 100:1 turndown
Repeatability	±0.2%
Meter Sizes	½", ¾", 1", 1¼", 1½", 2", and 2½"
Sensing Method	Direct beam path wetted ultrasonic sensors utilizing differential transit time velocity measurement.
Piping System Connections	½" through 2": Male NPT threads 2½": ANSI Class 150 raised face flanges
Temperature Ranges	Fluid: 32°F to 250°F (0 to 121°C) Ambient: -13°F to 131°F (-25 to 55°C)
Max. Operating Pressure	400 psi | 27.6 bar
Pressure Drop	Less than 1 psi at 4 ft/s, decreating at lower velocities
Power Supply Requirements	20-28V AC/DC; 50/60 Hz, 5 VA maximum
Isolated Analog Output	May be programmed for flow rate or temperature. Configurable as 4-20mA (non-isolated). Optional 0-5V or 0-10V output.
Isolated Totalizing Solid State Contact Closure Pulse Outputs	May be programmed for volume, alarm indication, or Modbus coil indication. Contact Ratings: 50mA, 30 VDC max. Contact Pulse Duration: 1000 ms Optional: Contact pulse duration (50, 100, or 500 ms)
Isolated Totalizing Pulse Inputs	For use with sinking open collector or dry contact outputs. Input rating: 30 VDC, 10 mA maximum Pulse duration: 50 ms minimum
Network Connections	Modbus RS485 serial interface - Standard with LCD Display units

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Meter Data

Part Number		Meter Size	Flow Range (GPM)		Minimum Flow	Port Type	Weight
w/ LCD Display	No Display	(Nominal)	1% Accuracy	2% Accuracy	(GPM)		(Lbs)
WIN–1S–1N	WIN–2S–1N	1/2"	0.6-15	0.15-15	0.03	Male NPT	5.0
WIN–1L–2N	WIN–2L–2N	3/4" low flow	0.6-15	0.15-15	0.03	Male NPT	6.0
WIN–1S–2N	WIN–2S–2N	3/4"	1-25	0.25-25	0.05	Male NPT	6.0
WIN–1L–3N	WIN–2L–3N	1" low flow	1-25	0.25-25	0.05	Male NPT	8.0
WIN–1S–3N	WIN–2S–3N	1"	1.4-35	0.35-35	0.07	Male NPT	10.0
WIN–1S–4N	WIN–2S–4N	1-1/4"	3-60	0.6-60	0.12	Male NPT	10.0
WIN–1S–5N	WIN–2S–5N	1-1/2"	5-100	1-100	0.2	Male NPT	13.0
WIN–1S–6N	WIN–2S–6N	2"	8-150	1.5-150	0.3	Male NPT	15.0
WIN–1S–7F	WIN–2S–7F	2-1/2"	12-225	2.5-250	0.5	Class 150 Flange	31.0

Meter Dimensions

Meter Size (Nominal)	Length (L)	Width (W)	Height (H)
1/2"	7.48"	6.0"	4.2"
3/4"	7.48"	6.0"	4.2"
1"	10.23"	6.0"	4.2"
1-1/4"	10.23"	6.0"	4.5"
1-1/2"	11.8"	6.5"	4.5"
2"	11.8"	6.75"	4.5"
2-1/2"	10.23"	9.0"	7.0"

1/2" - 1" Meters

1-1/4" - 2-1/2" Meters
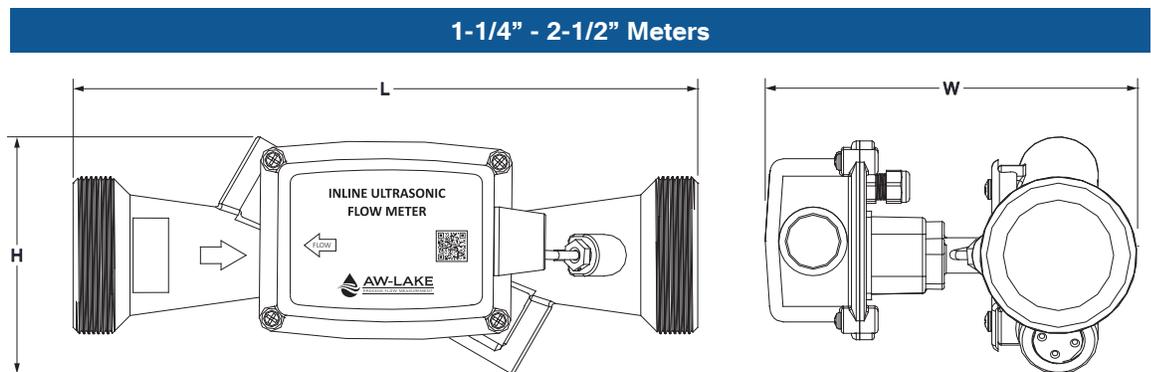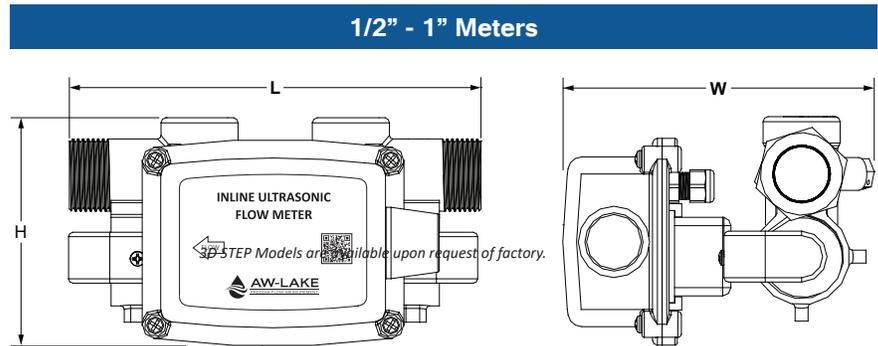
Products may be subject to change without notice. Contact factory for the most up-to-date product information.

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