

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 $\frac{1}{2}''$ – $2\frac{1}{2}''$ 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

Overall Flow Range	500:1 turndown
7 Flow Ranges	0.06 to 250 gpm (across all meter sizes)
Measuring Accuracy	$\pm 1.0\%$ of reading over 25:1 turndown, $\pm 2.0\%$ of reading over 100:1 turndown
Repeatability	$\pm 0.2\%$
Meter Sizes	$\frac{1}{2}''$, $\frac{3}{4}''$, 1", $1\frac{1}{4}''$, $1\frac{1}{2}''$, 2", and $2\frac{1}{2}''$
Sensing Method	Direct beam path wetted ultrasonic sensors utilizing differential transit time velocity measurement.
Piping System Connections	$\frac{1}{2}''$ through 2": Male NPT threads $2\frac{1}{2}''$: 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, decreasing 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. <u>Contact Ratings</u> : 50mA, 30 VDC max. <u>Contact Pulse Duration</u> : 1000 ms <u>Optional</u> : 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
Enclosure Rating	IP65 (dust and watertight ingress protection against light pressure water spray)

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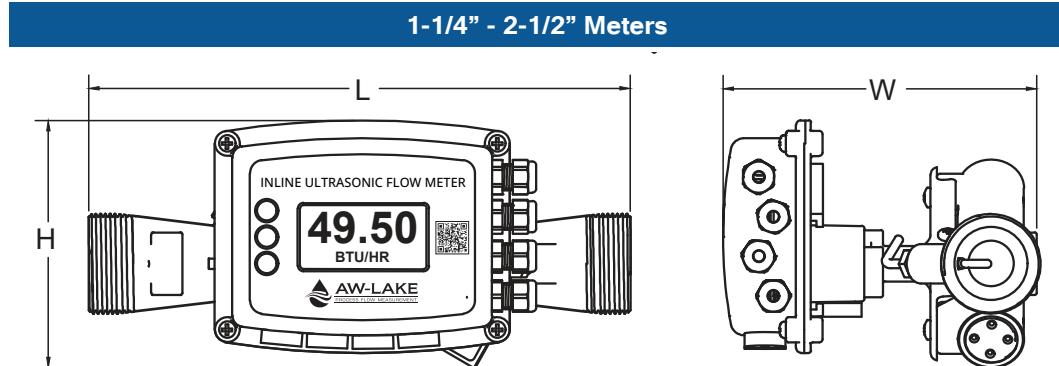
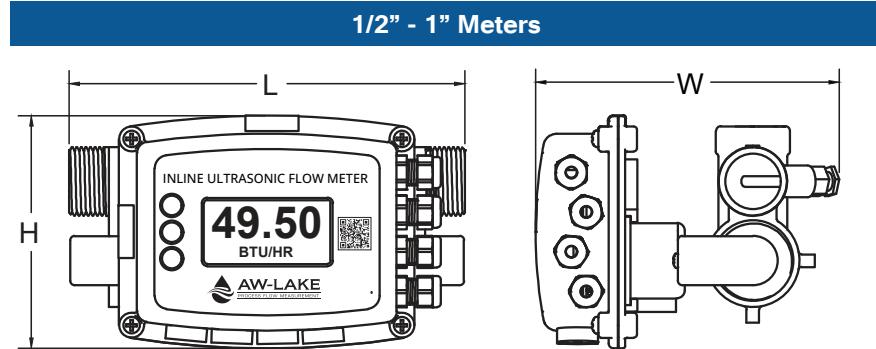
Meter Data

Part Number	Meter Size	Flow Range (GPM)		Minimum Flow	Port Type	Weight
	(Nominal)	1% Accuracy	2% Accuracy	(GPM)		(Lbs)
WIN-1S-1N	1/2"	0.6-15	0.15-15	0.03	Male NPT	5.0
WIN-1L-2N	3/4" low flow	0.6-15	0.15-15	0.03	Male NPT	6.0
WIN-1S-2N	3/4"	1-25	0.25-25	0.05	Male NPT	6.0
WIN-1L-3N	1" low flow	1-25	0.25-25	0.05	Male NPT	8.0
WIN-1S-3N	1"	1.4-35	0.35-35	0.07	Male NPT	10.0
WIN-1S-4N	1-1/4"	3-60	0.6-60	0.12	Male NPT	10.0
WIN-1S-5N	1-1/2"	5-100	1-100	0.2	Male NPT	13.0
WIN-1S-6N	2"	8-150	1.5-150	0.3	Male NPT	15.0
WIN-1S-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"	5.75"	4.5"
3/4"	7.48"	5.75"	4.5"
1"	10.23"	5.75"	4.5"
1-1/4"	10.20"	5.75"	4.5"
1-1/2"	11.80"	6.25"	5.0"
2"	11.80"	6.50"	5.5"
2-1/2"	10.23"	8.75"	7.0"

3D STEP Models are available upon request of factory.



Products may be subject to change without notice. Contact factory for the most up-to-date product information.