

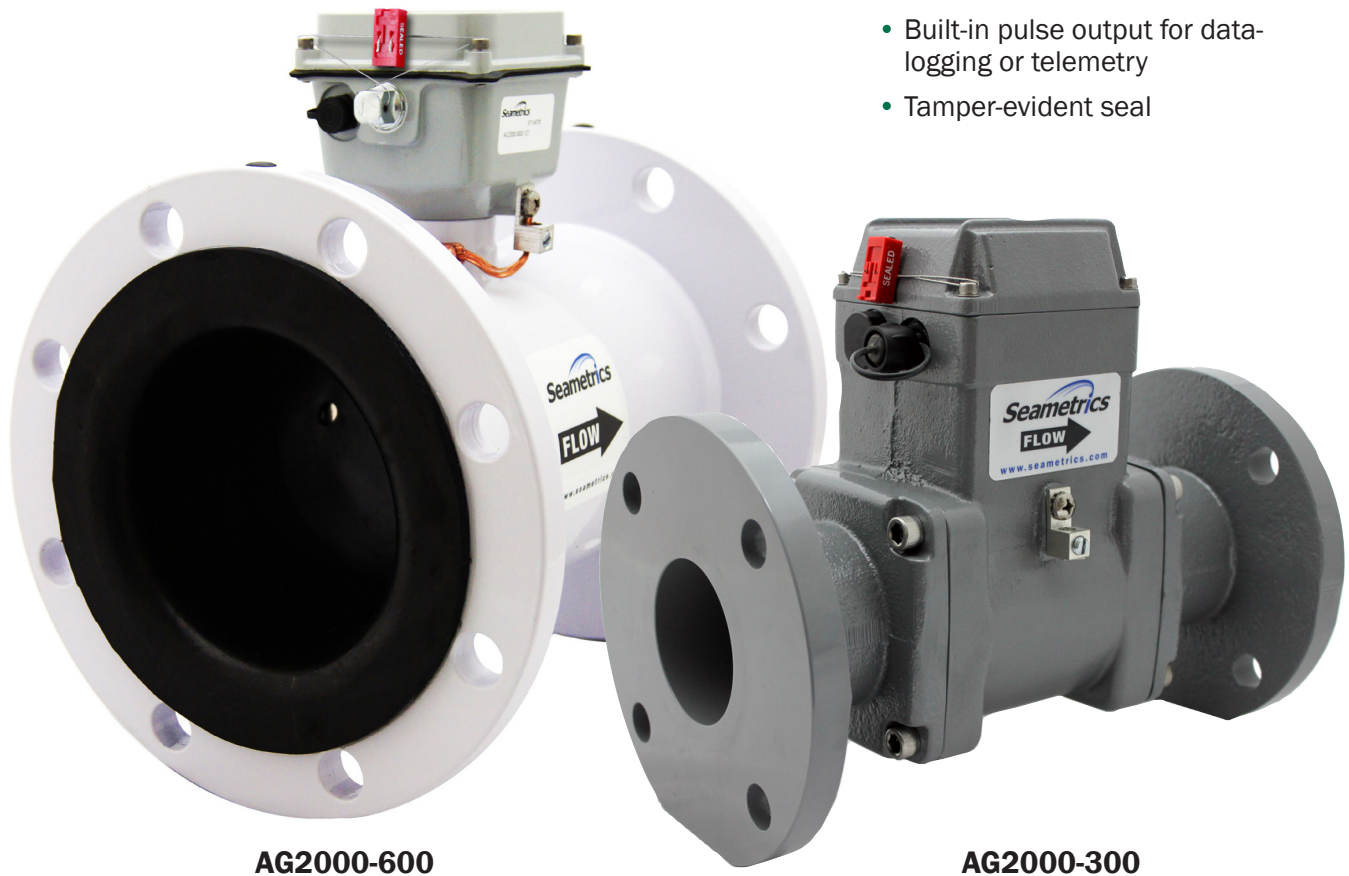


### APPLICATIONS

- Irrigation
- Chemigation
- Agricultural automation
- Well usage monitoring
- Dairy Lagoons

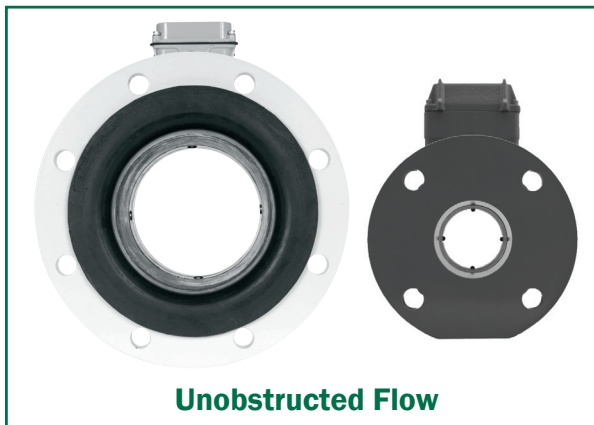
### FEATURES

- Simple as a mechanical meter
- No moving parts
- Minimal straight pipe required
- Battery power standard; External power optional
- Solar compatible
- Built-in rate & total indicator
- Built-in pulse output for data-logging or telemetry
- Tamper-evident seal



AG2000-600

AG2000-300



Unobstructed Flow

**Seametrics' series of standard and IP68 (submersible) flanged magmeters.**

**Available in sizes from 3" up to 12".**

## GENERAL INFORMATION

The AG2000 is a spool-type electromagnetic flowmeter for use in irrigation applications in 3" to 12" pipe. With no moving parts, these meters provide unobstructed flow and are resistant to wear from debris found in ground or surface water. Little maintenance is required because there are no bearings to wear out or propellers to stop turning. Minimal straight pipe requirements allow AG2000 meters to be used in piping configurations where there is little space between the meter and an elbow.

The standard AG2000 is battery powered. Where an external power source is available, the AG2000 can be optionally converted to 8-32 Vdc, with the batteries then serving as back-up to maintain continuous operation in case of power failure. This configuration will prolong battery life indefinitely.

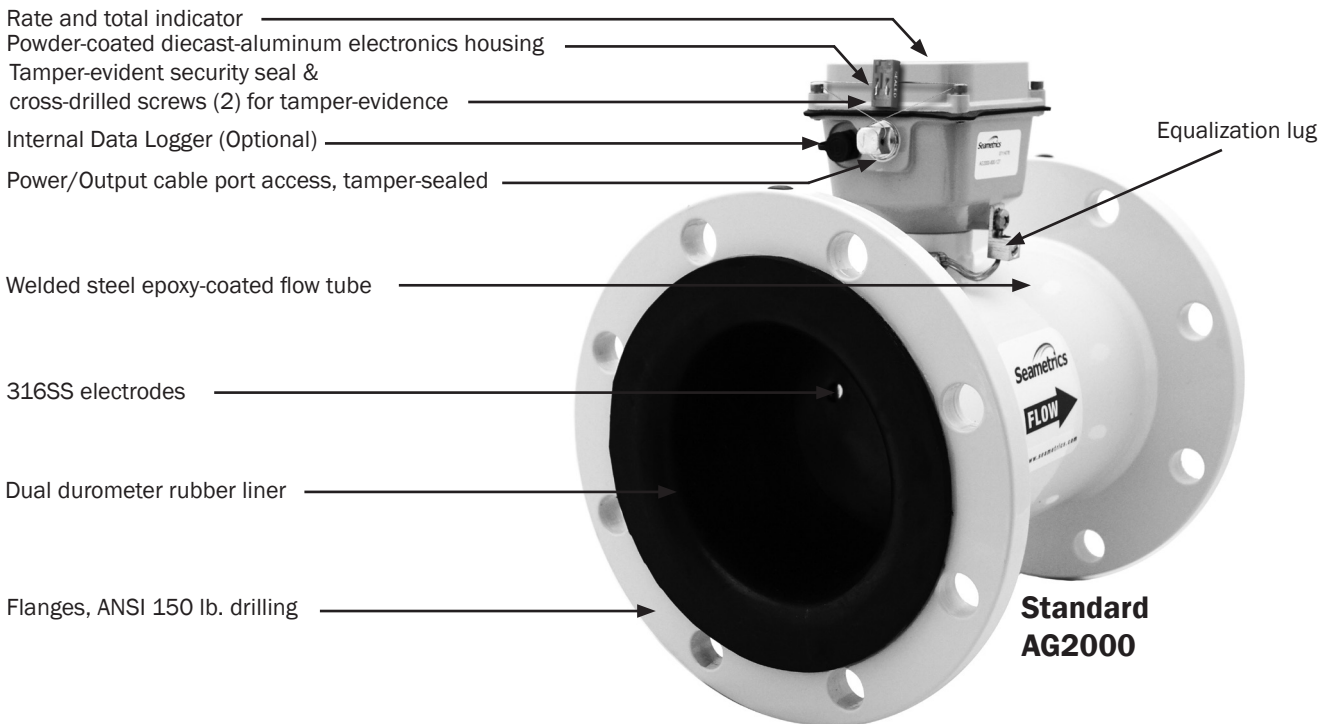
An IP68 version (-168 option) is available for burial or applications where the meter may be under water up to a depth of 3 meters for prolonged periods of time.

The meter comes with built-in pulse output (requires optional cable) for data logging or telemetry. Several pulse rates are available. An internal data logger is also available for secure flow logging (-127 option). A Seametrics FT415W or FT420W display can be added if remote rate/total reading is desired, or an AO55W if a (4-20 mA) analog signal is required. (High-frequency pulse rate is required for use with most Seametrics controllers.)

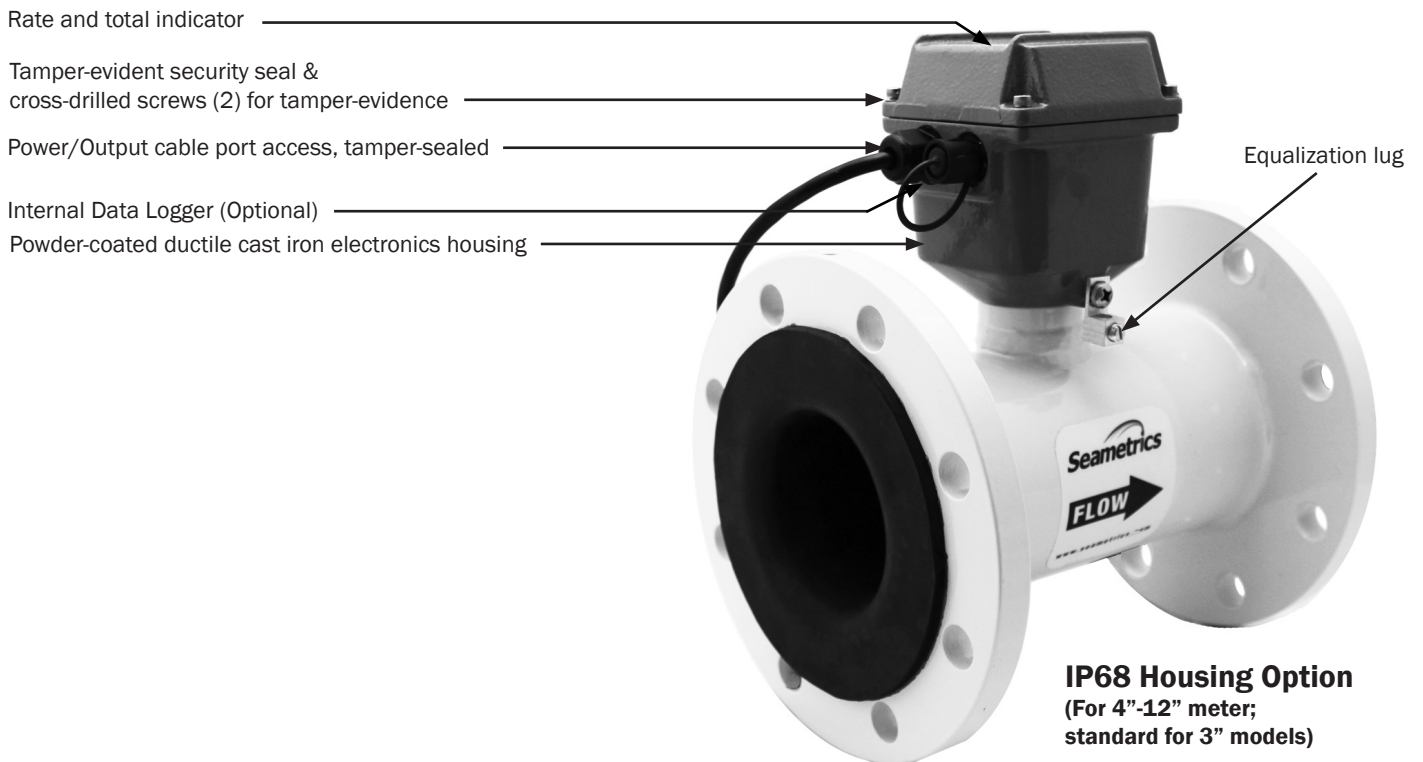
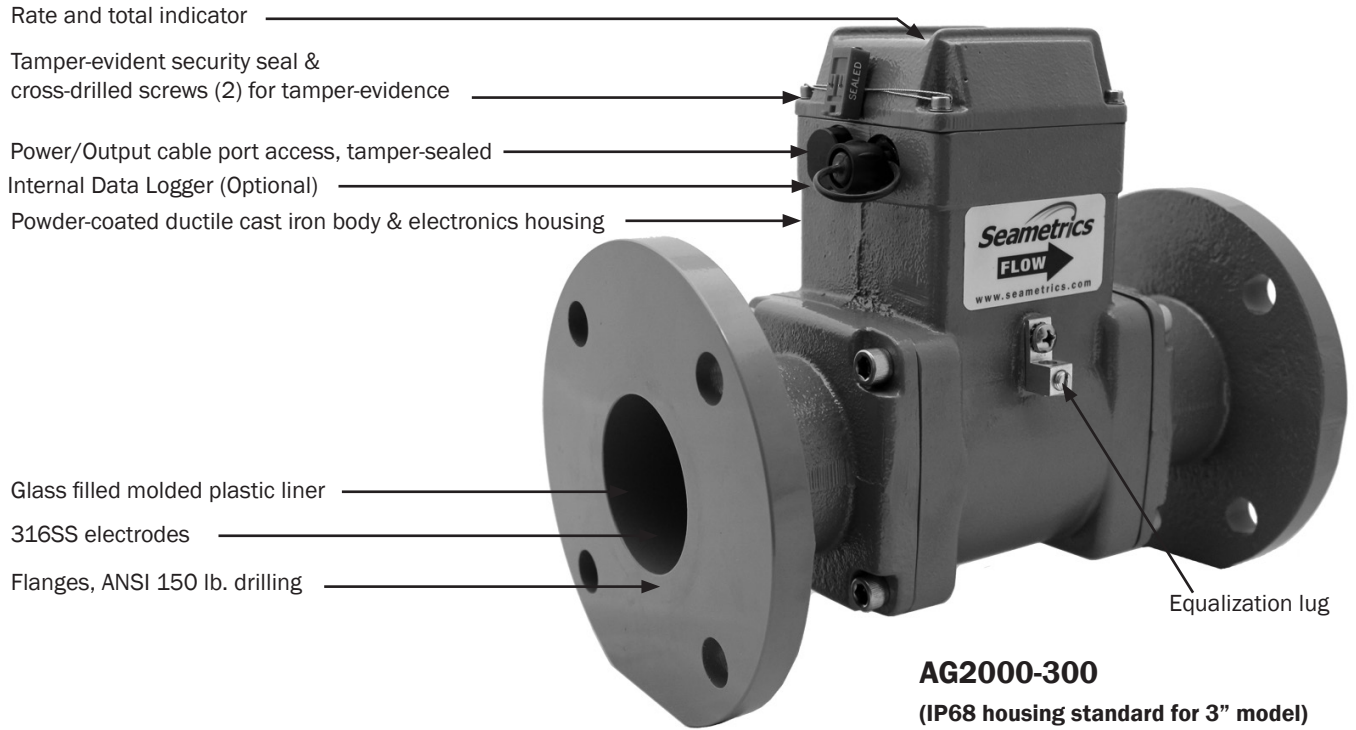
The AG2000 is secured with a seal wire to protect against unauthorized access. The seal can be broken by an authorized agent, to change units of measure, replace the battery pack, or to field-install an optional power/output cable. The cable can be factory or field-installed where external power is available and/or pulse output is needed. An accessory weather guard is available for additional protection in outdoor applications.

For chemigation applications, the chemical injection point must be placed downstream of the meter **OR** far enough upstream for **complete mixing** to occur before the flow reaches the meter. (See tech bulletin on Seametrics' website, [www.seametrics.com](http://www.seametrics.com)).

## FEATURES



## FEATURES Continued





# AG2000 Irrigation Magmeter

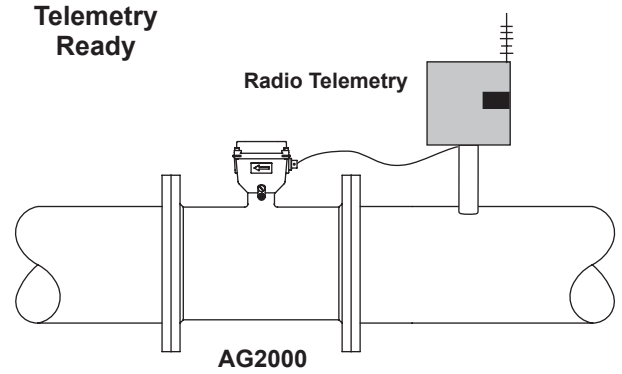
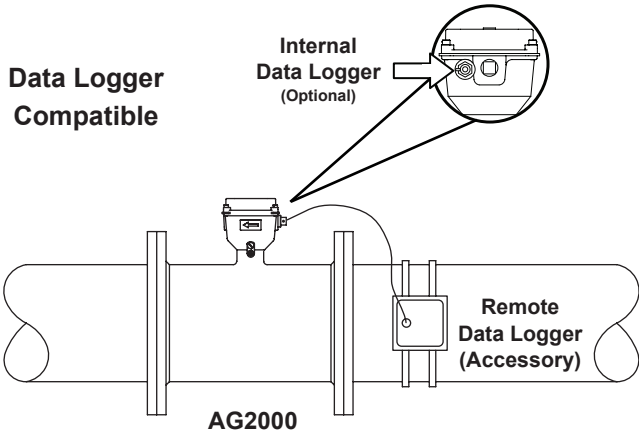
## SPECIFICATIONS\*

<b>Pipe Sizes</b>	3", 4", 6", 8", 10", 12"						
<b>Fittings</b>	ANSI 150 lb. drilling						
<b>Pressure</b>	150 psi (10.3 bar) working pressure						
<b>Temperature</b>	<b>Operating</b>	10° to 130° F (-12° to 54° C)					
	<b>Non-Operating</b>	-40° to 158° F (-40° to 70° C)					
<b>Accuracy</b>	+/- 1% of reading for flow between 10% to 100% of max flow						
	+/- 2% of reading for flow from cutoff to 10% of max flow						
<b>Materials</b>	<b>Body (3" Only)</b>	Ductile cast iron, powder coated w/NSF61 listed epoxy powder					
	<b>Body (4"-12")</b>	Welded steel, epoxy-coated					
	<b>Liner (3" Only)</b>	Noryl®					
	<b>Liner (4"-12")</b>	Santoprene/Polypropylene					
	<b>Electronics Housing</b>	Diecast aluminum, powder-coated (non-IP68)			Ductile Cast Iron (IP68)		
	<b>Electrodes</b>	316 stainless steel					
	<b>O-ring (3" Only)</b>	EPDM					
<b>Display</b>	<b>Rate</b>					<b>Total</b>	
	<b>Digits</b>	5				8	
	<b>Units</b>	Gallon/Minute, Liter/Minute, Cubic Feet/Minute, Cubic Meter/Hour, Gallons/Sec, Liter/Second, Cubic Feet/ Sec, Miner's Inch, Cubic Meter/Min				Gallon, Gallon x 1000, Liter, Liter x 1000, Mega Liter, Cubic Meters, Cubic Meter x 1000, Acre Feet, Cubic Feet, Cubic Feet x 1000, Million Gallon, Miner's Inch Day, Acre Inch	
<b>Power</b>	1 battery pack that contains 2 Lithium 3.6V "D" batteries, replaceable. Standard battery life 2.5 years 5 years with extended battery life (EBL) option With external power option (uses 8-32 Vdc, 30 mA), Lithium batteries serve as backup in power failure (10 year life)						
<b>Pulse Output (with optional cable)</b>	<b>Signal</b>	Current sinking pulse, opto-isolated, 30 Vdc at 10 mA max					
	<b>Pulse Rates</b>	High Frequency; 10 units/pulse; 100 units/pulse; 1000 units/pulse					
	<b>High Frequency (pulse/gal)</b>	<b>3"</b>	<b>4"</b>	<b>6"</b>	<b>8"</b>	<b>10"</b>	<b>12"</b>
		25.228	16.362	6.307	3.344	2.15	1.530
<b>Conductivity</b>	>20 microSiemens/cm						
<b>Empty Pipe Detection</b>	Hardware/software, conductivity-based						
<b>Environmental</b>	NEMA 4X Standard (IP68 Option)						

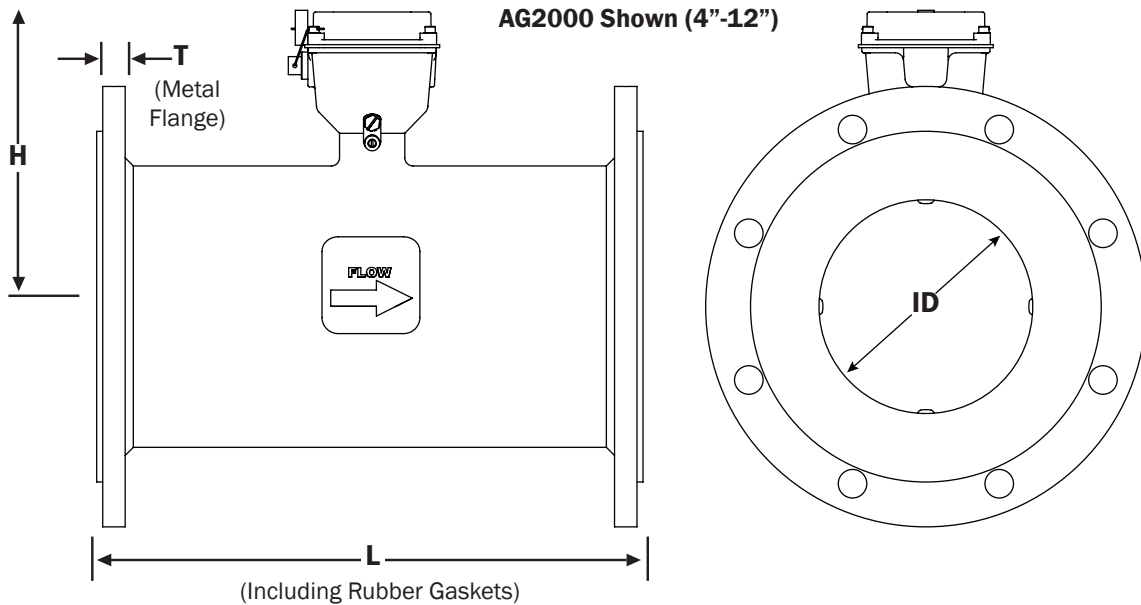
\*Specifications subject to change. Please consult our website for the most current data ([www.seametrics.com](http://www.seametrics.com)).

\*\*Extended battery life option is standard on all IP68 meters.

## OUTPUT CAPABILITIES



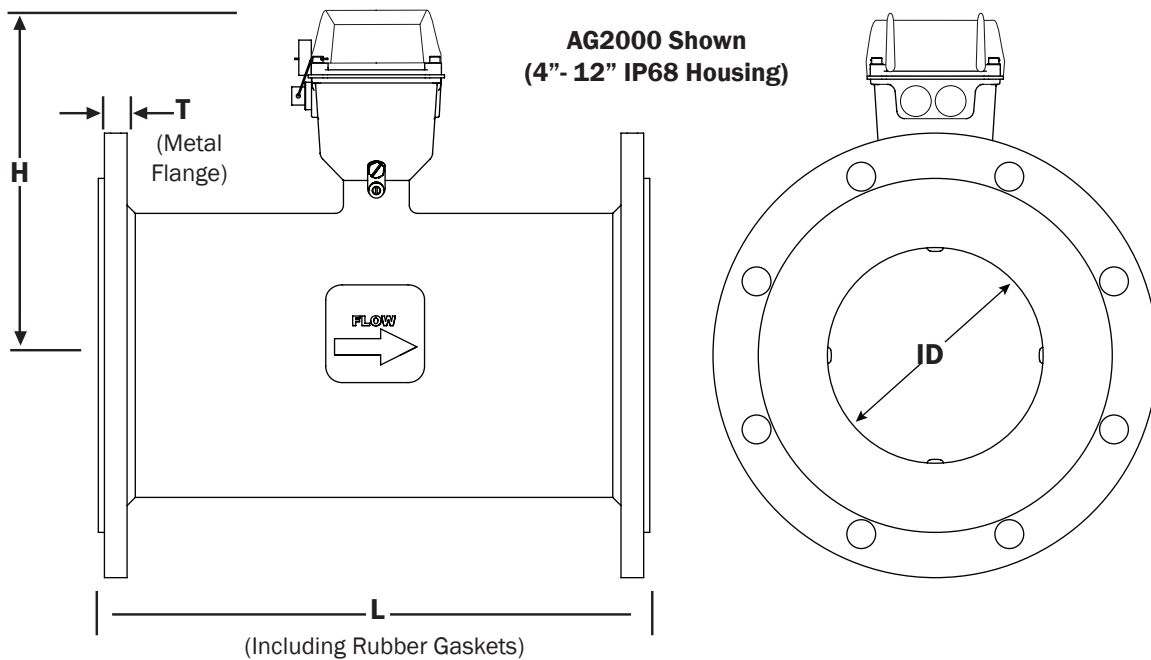
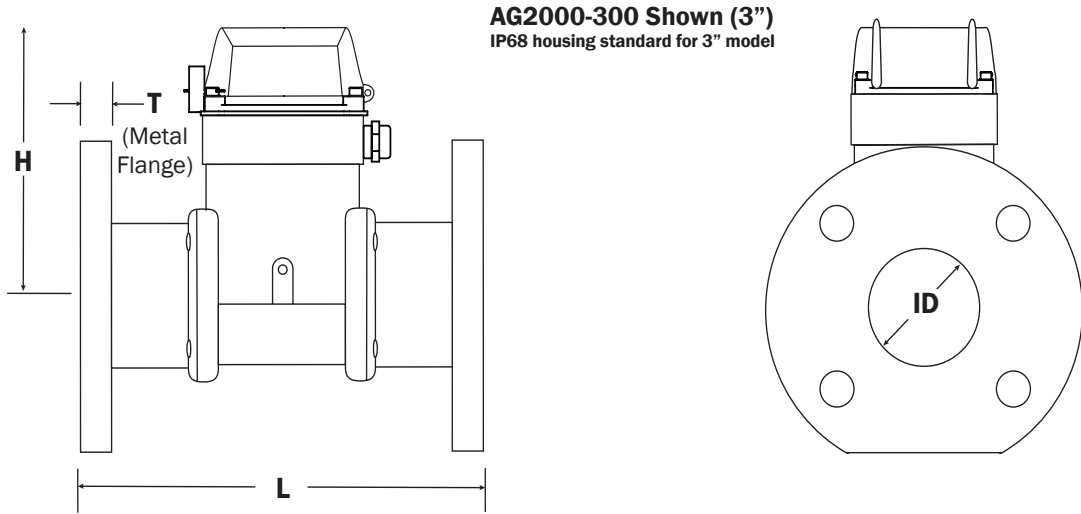
## DIMENSIONS



### AG2000 (Standard Housing)

Standard AG2000 Meter Size	L		H		T		ID		Shipping Weight Standard	
	inch	mm	inch	mm	inch	mm	inch	mm	pounds	Kg
4"	10.24	260	7.0	178	.62	20.9	3.12	79.25	32	15
6"	12.27	312	8.1	206	.69	23.3	5.05	128.27	47	21
8"	14.24	362	9.1	231	.69	23.3	6.44	163.58	69	31
10"	18.18	462	10.1	257	.69	23.3	8.61	218.69	125	57
12"	19.68	500	11.1	282	.81	20.6	10.55	267.97	145	66
<b>Flanges</b>	Standard ANSI 150 lb. drilling								Cable (AG2000) 1 lb.	

## DIMENSIONS



### AG2000 with IP68 Housing (-168 option)

IP68 AG2000 Meter Size	L		H		T		ID		Shipping Weight IP68 Version	
	inch	mm	inch	mm	inch	mm	inch	mm	pounds	Kg
3"	12.0	305	6.80	173	.68	17.3	2.60	66.04	41	19
4"	10.24	260	8.12	206	.62	20.9	3.12	79.25	35	16
6"	12.27	312	9.22	234	.69	23.3	5.05	128.27	50	23
8"	14.24	362	10.22	260	.69	23.3	6.44	163.58	72	33
10"	18.18	462	11.22	285	.69	23.3	8.61	218.69	128	58
12"	19.68	500	12.28	312	.81	20.6	10.55	267.97	148	67

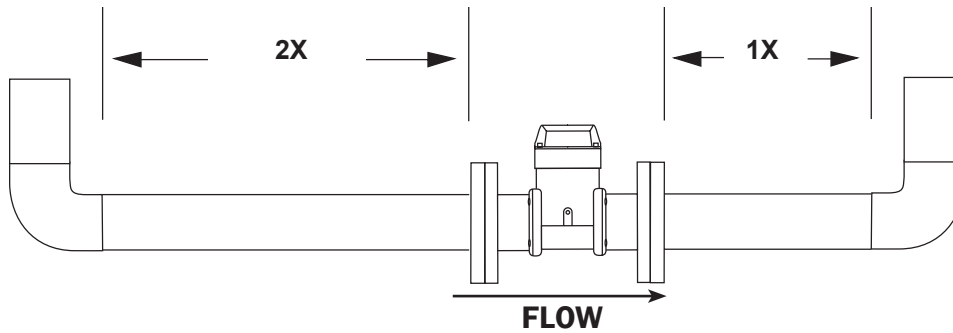
**Flanges** Standard ANSI 150 lb. drilling

Cable (AG2000) 1 lb.

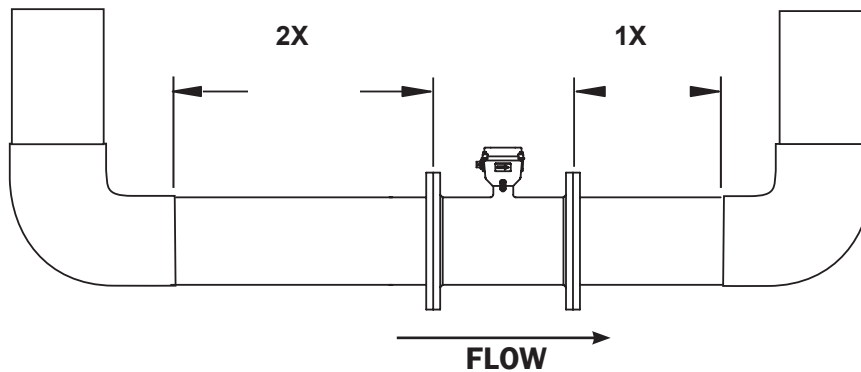
## STRAIGHT PIPE RECOMMENDATIONS

(X = pipe diameter)

*Minimal straight pipe  
required between elbows.  
For other piping configurations,  
consult factory.*



(X = pipe diameter)



## FLOW RANGE (3" - 12")

Meter Size	3"		4"		6"		8"		10"		12"	
	Gal/Min	Liter/Sec	Gal/Min	Liter/Sec	Gal/Min	Liter/Sec	Gal/Min	Liter/Sec	Gal/Min	Liter/Sec	Gal/Min	Liter/Sec
<b>Minimum</b>	7.5	.47	12	.75	32	2	60	3.8	95	6	130	8.2
<b>Maximum</b>	700	44.2	1,000	63	2,400	151.4	4,400	277.6	7,000	441.6	10,000	630.9

## HOW TO ORDER

MODEL	SIZE	OPTIONS	PULSE RATE (With Option -11)	UNITS																																	
AG2000	3" = <b>-300*</b> 4" = <b>-400</b> 6" = <b>-600</b> 8" = <b>-800</b>  10" = <b>-1000</b> 12" = <b>-1200</b>	Factory Installed Power/ Output Cable: 6m (20 ft) = <b>-11/6</b> 15m (50 ft) = <b>-11/15</b> 30m (100 ft) = <b>-11/30</b>  Factory Installed IP68 Power/Output Cable: 6m (20 ft) = <b>-11/6S</b> 15m (50 ft) = <b>-11/15S</b> 30m (100 ft) = <b>-11/30S</b>  Internal Data Logger = <b>-127</b> Serial Output = <b>-131</b> IP68 Submersible = <b>-168</b> Extend. Battery Life <sup>1</sup> = <b>-178</b>	10 Units*/Pulse = <b>-PxX</b> 100 Units*/Pulse = <b>-PxH</b> 1000 Units*/Pulse = <b>-PxK</b> High Frequency** = <b>-HF</b>	<table style="width: 100%; border: none;"> <tr> <td style="width: 33%;">Gal/Min = <b>GPM</b></td> <td style="width: 33%;">Gal = <b>G</b></td> <td style="width: 33%;">Gal x 1000 = <b>GT</b></td> </tr> <tr> <td>Liter/Min = <b>LPM</b></td> <td>Liter = <b>L</b></td> <td>Liter x 1000 = <b>LT</b></td> </tr> <tr> <td>Cu Ft/Min = <b>CFM</b></td> <td>Cu Meter/Hr = <b>CMH</b></td> <td>Mega Liters = <b>ML</b></td> </tr> <tr> <td>Gal/Sec = <b>GPS</b></td> <td>Gal/Sec = <b>GPS</b></td> <td>Cubic Meters = <b>CM</b></td> </tr> <tr> <td>Liters/Sec = <b>LPS</b></td> <td>Cu Ft/Sec = <b>CFS</b></td> <td>Cu Met x 1000 = <b>CMT</b></td> </tr> <tr> <td>Miner's In** = <b>MI</b></td> <td>Cu Met/Min = <b>CMM</b></td> <td>Acre Feet = <b>AF</b></td> </tr> <tr> <td></td> <td></td> <td>Cubic Feet = <b>CF</b></td> </tr> <tr> <td></td> <td></td> <td>Cu Feet x 1000 = <b>CFT</b></td> </tr> <tr> <td></td> <td></td> <td>Million Gal = <b>MG</b></td> </tr> <tr> <td></td> <td></td> <td>Miner's Inch Day = <b>MID</b></td> </tr> <tr> <td></td> <td></td> <td>Acre Inch = <b>AI</b></td> </tr> </table>	Gal/Min = <b>GPM</b>	Gal = <b>G</b>	Gal x 1000 = <b>GT</b>	Liter/Min = <b>LPM</b>	Liter = <b>L</b>	Liter x 1000 = <b>LT</b>	Cu Ft/Min = <b>CFM</b>	Cu Meter/Hr = <b>CMH</b>	Mega Liters = <b>ML</b>	Gal/Sec = <b>GPS</b>	Gal/Sec = <b>GPS</b>	Cubic Meters = <b>CM</b>	Liters/Sec = <b>LPS</b>	Cu Ft/Sec = <b>CFS</b>	Cu Met x 1000 = <b>CMT</b>	Miner's In** = <b>MI</b>	Cu Met/Min = <b>CMM</b>	Acre Feet = <b>AF</b>			Cubic Feet = <b>CF</b>			Cu Feet x 1000 = <b>CFT</b>			Million Gal = <b>MG</b>			Miner's Inch Day = <b>MID</b>			Acre Inch = <b>AI</b>
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	*-300 available in IP68 only	<sup>1</sup> Extended battery life is standard on all IP68 meters	*Units = Gal or Liter depending on Rate/Total unit selection **High Frequency pulse rate will shorten battery life	Consult factory for additional units Any rate selection can be combined with any total selection ** 1 Miner's Inch = 1.2 CFM																																	

### ACCESSORIES

Remote 4-20 mA (analog) signal = **AO55W**

Remote Rate and Total Indicator (Battery) = **FT415W\***

Remote Rate and Total Indicator (Powered) = **FT420W\***

Remote Data Logger = **DL76W**

Dual Power Supply, 115 Vac, 12/24 Vdc = **PC42**  
 (Use with High Frequency pulse rate)

Replacement Battery Pack = 100889

Weather Guard = **100961**

Post-Factory 20-ft. Power/Output Cable  
 (Standard Housing Only) = **DC30**

Post-Factory 50-ft. Power/Output Cable  
 (Standard Housing Only) = **DC35**

Post-Factory 20-ft. Power/Output Cable  
 (IP68 Housing Only) = **DC30S**

Post-Factory 50-ft. Power/Output Cable  
 (IP68 Housing Only) = **DC35S**

Grounding Rings  
 (not needed for most applications):

3" = **102157**

4" = **100876**

6" = **100877**

8" = **100878**

10" = **100879**

12" = **103288**

\*Consult customer service to determine the appropriate indicator based on the distance it will be installed from the meter.

## CONTACT YOUR SUPPLIER