AG2000 (Archive) Irrigation Magmeter

ISO 9001:2008 CERTIFIED COMPANY

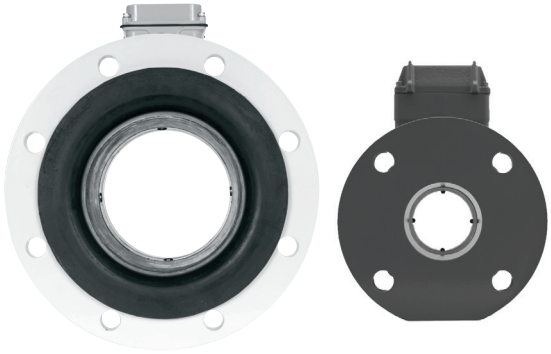
APPLICATIONS

- 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".

AG2000
Irrigation Magmeter

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.

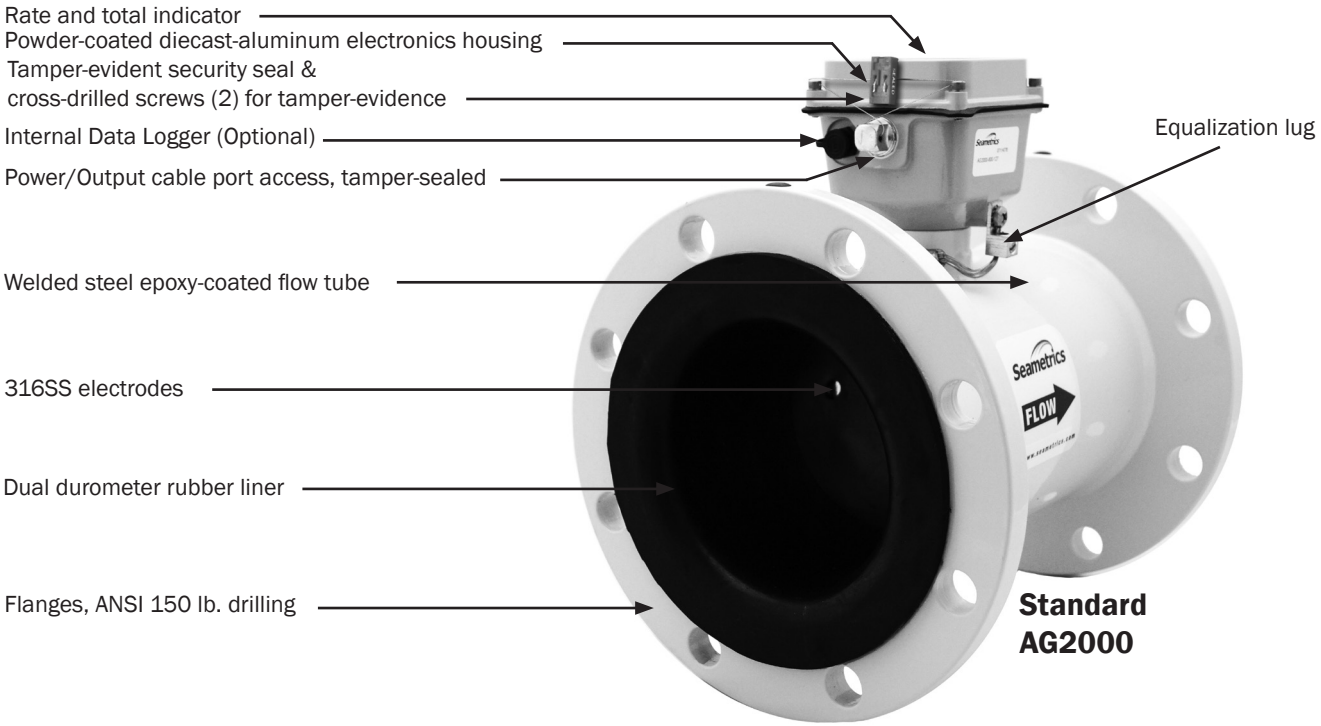
An IP68 version (-168 option) is available for burial or applications where the meter may be under water up to a depth of 3 meters for prolonged periods of time.

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).

FEATURES



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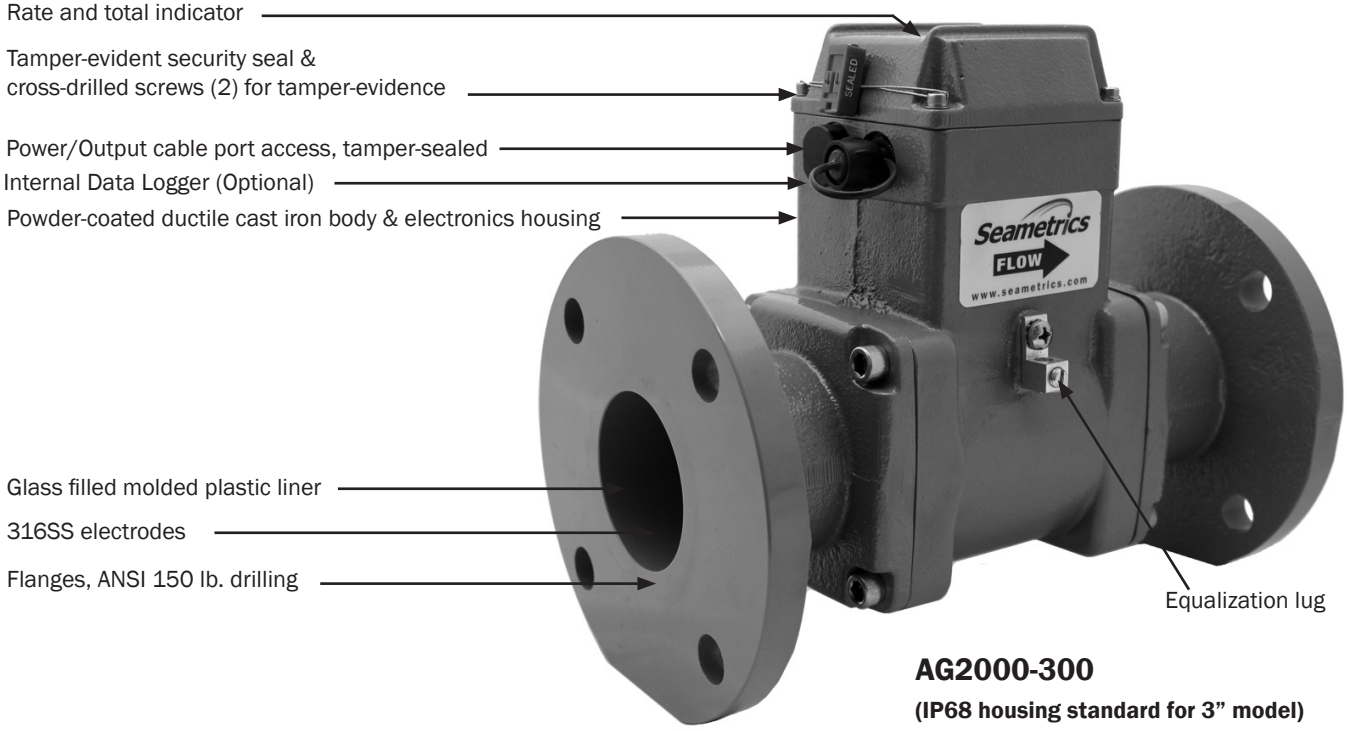
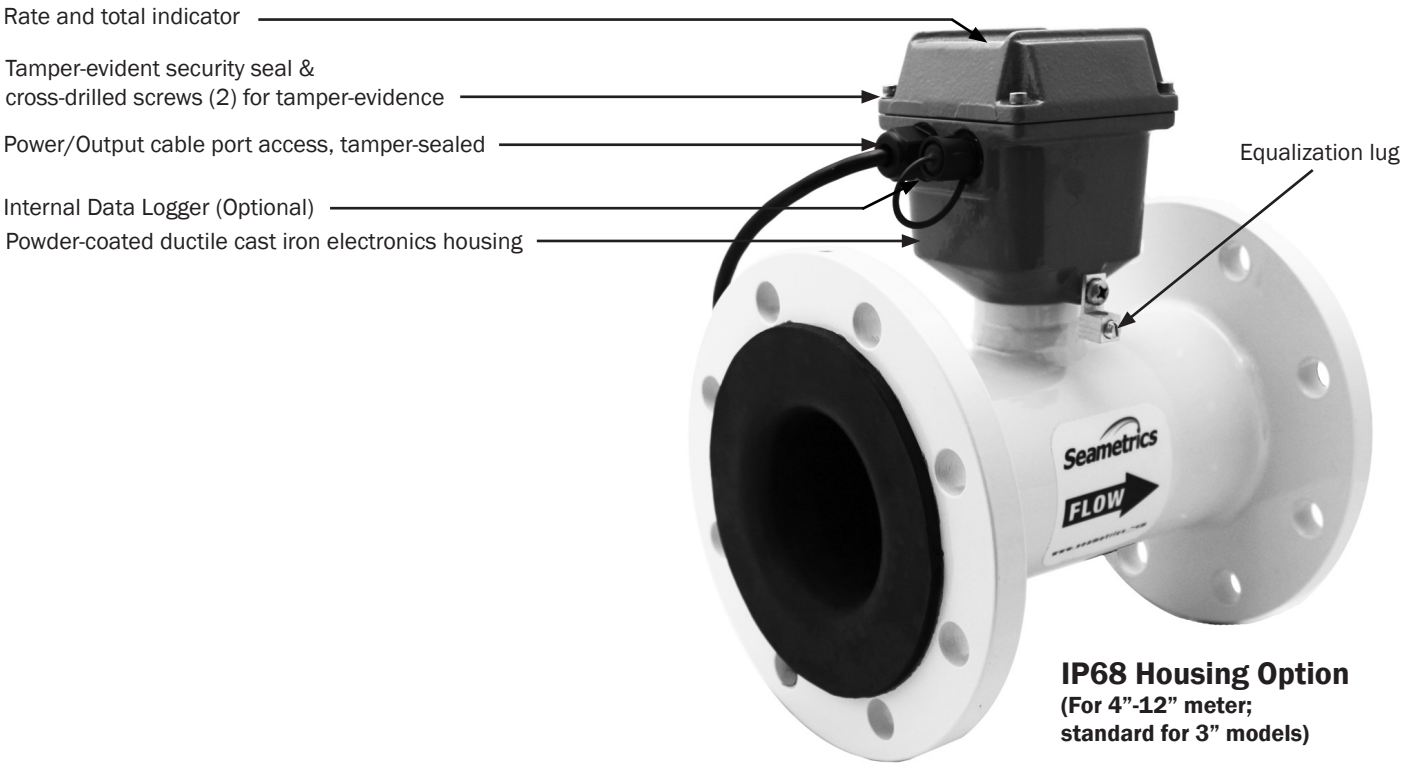
FEATURES Continued



AG2000-300
(IP68 housing standard for 3" model)



IP68 Housing Option
(For 4"-12" meter;
standard for 3" models)

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SPECIFICATIONS*

Pipe Sizes		3”, 4”, 6”, 8”, 10”, 12”					
Fittings		ANSI 150 lb. drilling					
Pressure		150 psi (10.3 bar) working pressure					
Temperature	**Operating**	10˚ to 130˚ F (-12˚ to 54˚ C)					
	Non-Operating	-40˚ to 158˚ F (-40˚ to 70˚ C)					
Accuracy		+/- 1% of reading for flow between 10% to 100% of max flow					
		+/- 2% of reading for flow from cutoff to 10% of max flow					
Materials	**Body (3” Only)**	Ductile cast iron, powder coated w/NSF61 listed epoxy powder					
	Body (4”-12”)	Welded steel, epoxy-coated					
	Liner (3” Only)	Noryl®					
	Liner (4”-12”)	Santoprene/Polypropylene					
	Electronics Housing	Diecast aluminum, powder-coated (non-IP68)				Ductile Cast Iron (IP68)	
	Electrodes	316 stainless steel					
	O-ring (3” Only)	EPDM					
Display		**Rate**				**Total**	
	Digits	5				8	
	Units	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	
Power		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)					
Pulse Output (with optional cable)							
	Signal	Current sinking pulse, opto-isolated, 30 Vdc at 10 mA max					
	Pulse Rates	High Frequency; 10 units/pulse; 100 units/pulse; 1000 units/pulse					
	High Frequency (pulse/gal)	**3”**	**4”**	**6”**	**8”**	**10”**	**12”**
		25.228	16.362	6.307	3.344	2.15	1.530
Conductivity		>20 microSiemens/cm					
Empty Pipe Detection		Hardware/software, conductivity-based					
Environmental		NEMA 4X Standard (IP68 Option)					

**Specifications subject to change. Please consult our website for the most current data (www.seametrics.com).*
***Extended battery life option is standard on all IP68 meters.*

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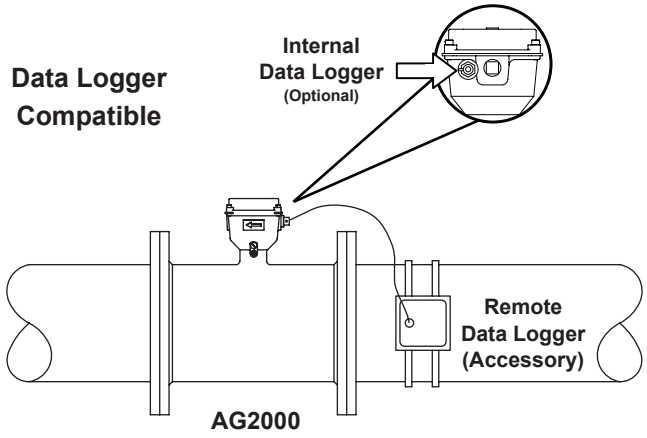
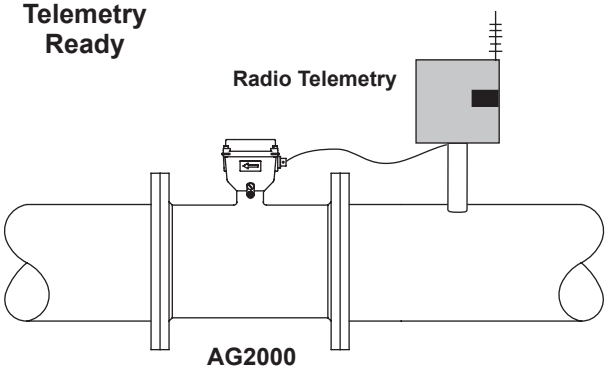
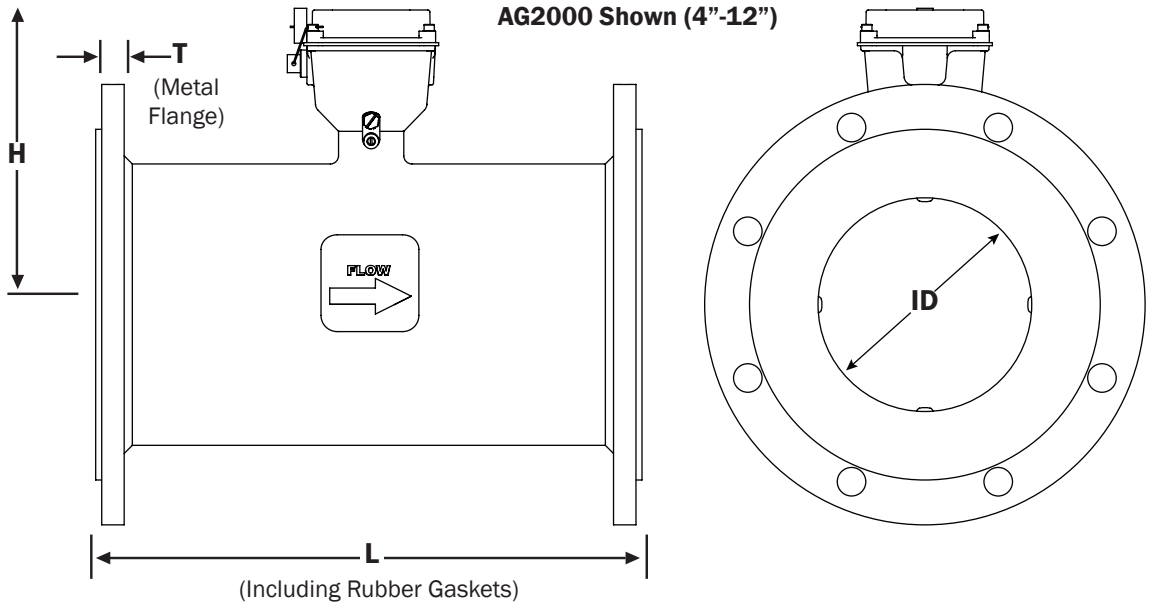
OUTPUT CAPABILITIES





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
Flanges	Standard ANSI 150 lb. drilling								Cable (AG2000) 1 lb.	

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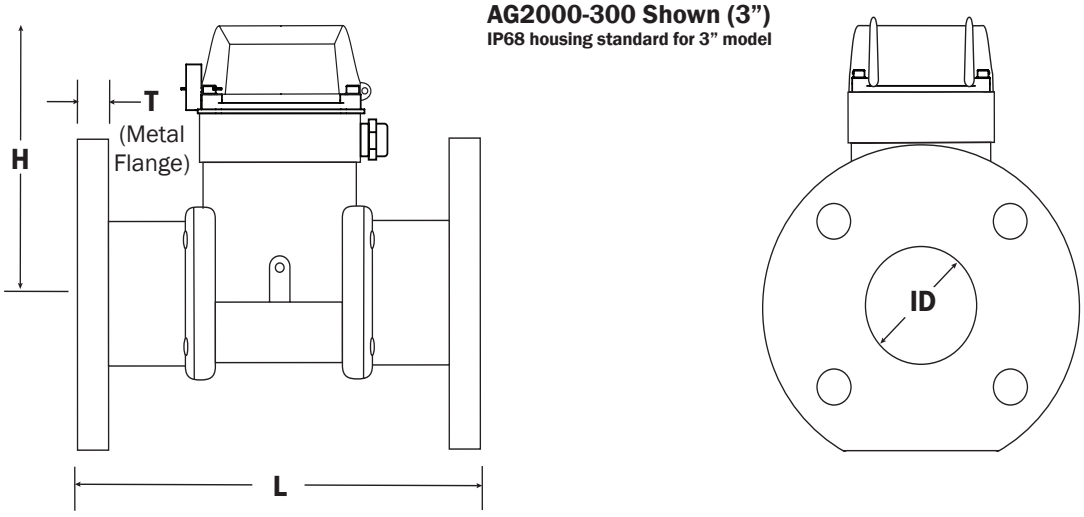
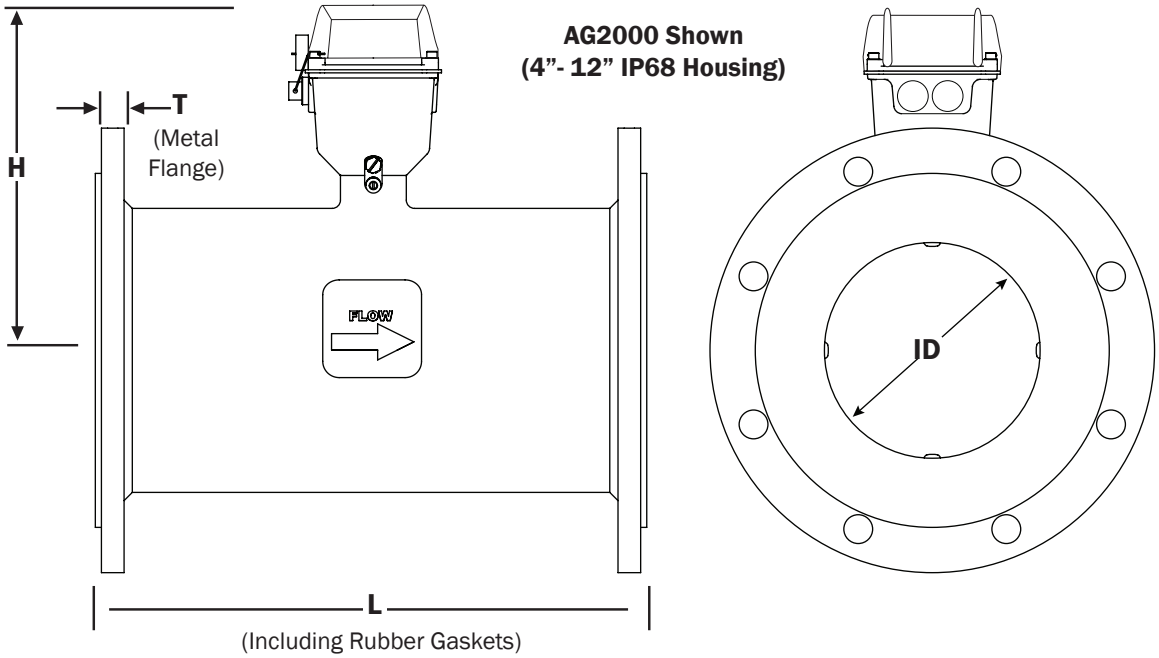
DIMENSIONS

AG2000-300 Shown (3")
IP68 housing standard for 3" model



AG2000 Shown
(4"- 12" IP68 Housing)



(Including Rubber Gaskets)

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.	

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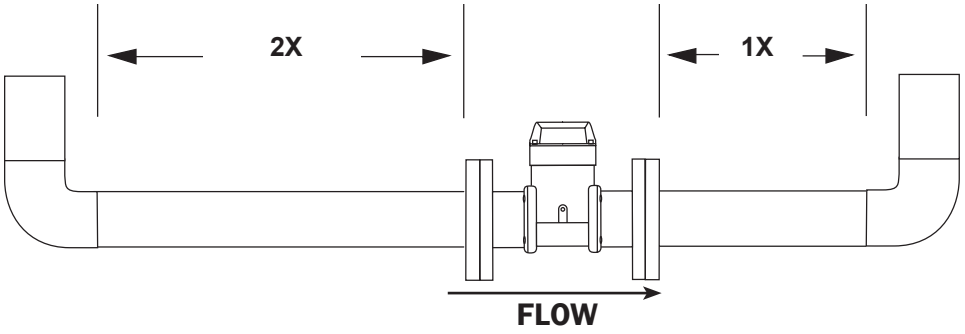
STRAIGHT PIPE RECOMMENDATIONS

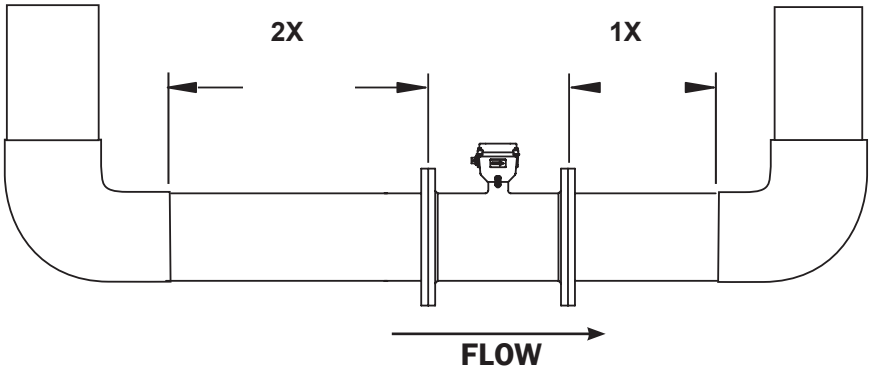
(X = pipe diameter)

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
Minimum	7.5	.47	12	.75	32	2	60	3.8	95	6	130	8.2
Maximum	700	44.2	1,000	63	2,400	151.4	4,400	277.6	7,000	441.6	10,000	630.9

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HOW TO ORDER

MODEL

AG2000

SIZE

3” = **-300***
4” = **-400**
6” = **-600**
8” = **-800**
10” = **-1000**
12” = **-1200**

*-300 available in IP68 only

OPTIONS

Factory Installed Power/ Output Cable:
6m (20 ft) = **-11/6**
15m (50 ft) = **-11/15**
30m (100 ft) = **-11/30**

Factory Installed IP68 Power/Output Cable:
6m (20 ft) = **-11/6S**
15m (50 ft) = **-11/15S**
30m (100 ft) = **-11/30S**

Internal Data Logger = **-127**
Serial Output = **-131**
IP68 Submersible = **-168**
Extend. Battery Life[1] = **-178**

[1] Extended battery life is standard on all IP68 meters

PULSE RATE
(With Option -11)

10 Units*/Pulse = **-PxX**
100 Units*/Pulse = **-PxH**
1000 Units*/Pulse = **-PxK**
High Frequency**= **-HF**

*Units = Gal or Liter depending on Rate/Total unit selection
**High Frequency pulse rate will shorten battery life

UNITS

Gal/Min	= **GPM**	Gal	= **G**
Liter/Min	= **LPM**	Gal x 1000	= **GT**
Cu Ft/Min	= **CFM**	Liter	= **L**
Cu Meter/Hr	= **CMH**	Liter x 1000	= **LT**
Gal/Sec	= **GPS**	Mega Liters	= **ML**
Liters/Sec	= **LPS**	Cubic Meters	= **CM**
Cu Ft/Sec	= **CFS**	Cu Met x 1000	= **CMT**
Miner’s In**	= **MI**	Acre Feet	= **AF**
Cu Met/Min	= **CMM**	Cubic Feet	= **CF**
		Cu Feet x 1000	= **CFT**
		Million Gal	= **MG**
		Miner’s Inch Day	= **MID**
		Acre Inch	= **AI**

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

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