WMX-SERIES
Flanged Magmeter

ISO 9001:2008 CERTIFIED COMPANY

NSF Certified to NSF/ANSI 61

FEATURES

- NSF/ANSI 61 Available (4” - 12”)
- Built-in pulse output for data logging or telemetry
- Minimal straight pipe required
- Continuous battery or external power
- IP68 submersible (option)

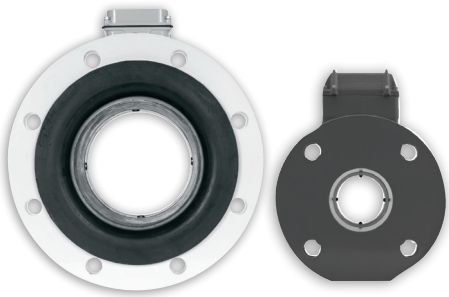
APPLICATIONS

- Filtration systems
- Pump stations
- Municipal water/wastewater
- Industrial water/wastewater
- Cooling tower water treatment
- Packaged plants

WMX104

WMX101-168

WMX104-300



Unobstructed Flow

Seametrics’ series of standard and IP68 (submersible) flanged magmeters. Available in sizes from 3” up to 12”.

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GENERAL INFORMATION

The **WMX-Series** are flanged electromagnetic flowmeters for use in 3" to 12" pipe in municipal or industrial water and wastewater applications where propeller meters have typically been used in the past. Because the WMX has no moving parts and has electrodes designed to discourage fouling, this magmeter performs well and requires much less frequent maintenance in applications where debris would impede propeller meters. There is no rotor to stop turning or bearings to wear out. Minimal straight pipe requirements allow WMX-Series meters to be used in piping configurations where there is little space between the meter and an elbow.

In chemical injection applications, the chemical injection point must be placed downstream of the magmeter OR far enough upstream for **complete mixing** to occur before the fluid reaches the meter.

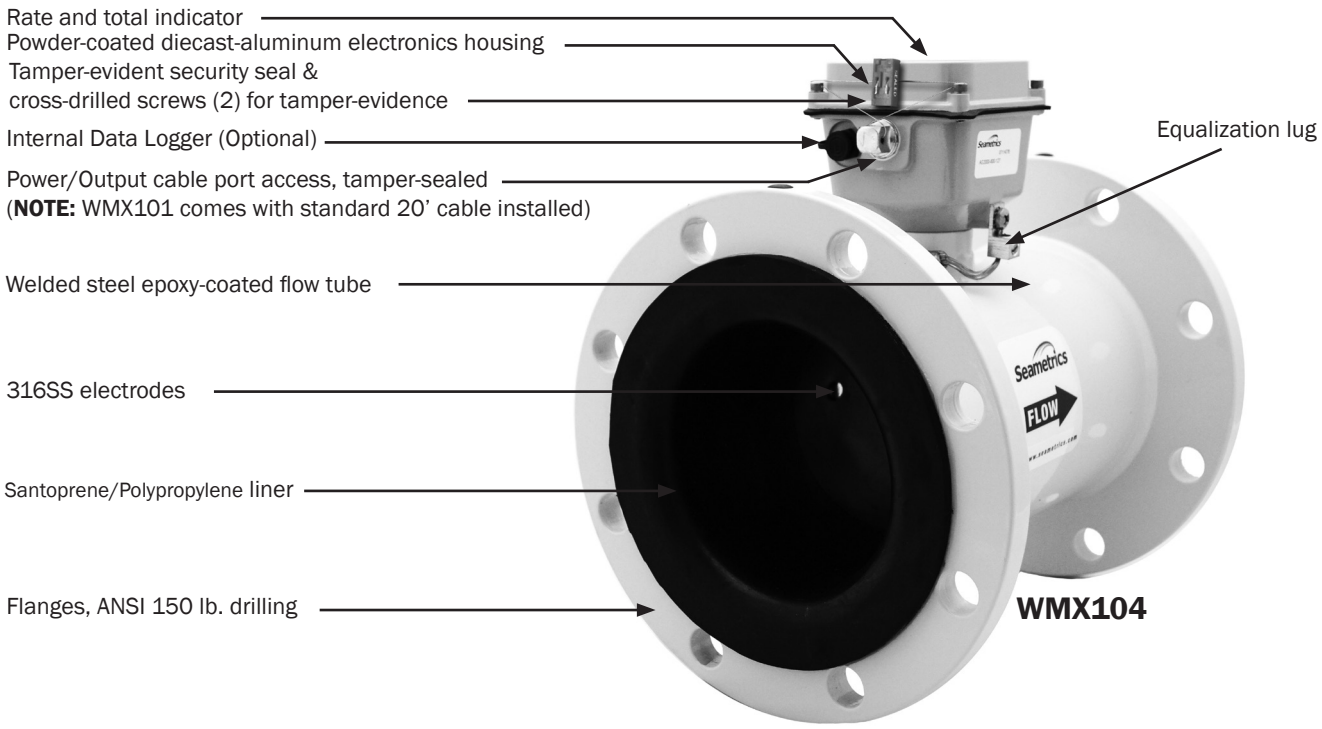
The submersible units, -168 option, are rated IP68 (NEMA 6P) for applications where the meter may be under water up to a depth of 3 meters for prolonged periods of time.

Rate and total indication are standard on both models. Units are customer-selected and factory-set. No set-up is required.
The **WMX101** is externally powered with 8-32 Vdc at 30 mA max (see **NOTE** in Specifications). Two Lithium 3.6V "AA" batteries provide auxiliary power during power failures, allowing the meter to continue recording flow rate and total without interruption for the duration of the outage. Where external power loss is infrequent, battery life exceeds 10 years.

The 20-foot power cable also provides pulse output for use with a variety of Seametrics and other displays and controls for remote reading, data logging, pulse-to-analog conversion, and telemetry applications. High frequency pulse rate (required for use with 4-20 mA converters) is standard; additional pulse rates are optional.

The **WMX104** is a battery-operated unit for use when pulse output is not required. Two Lithium 3.6V "D" batteries provide power and are replaceable with an approximate 1-year life under continuous use. An optional input/output cable can be installed post-factory if needed for changing applications.

FEATURES



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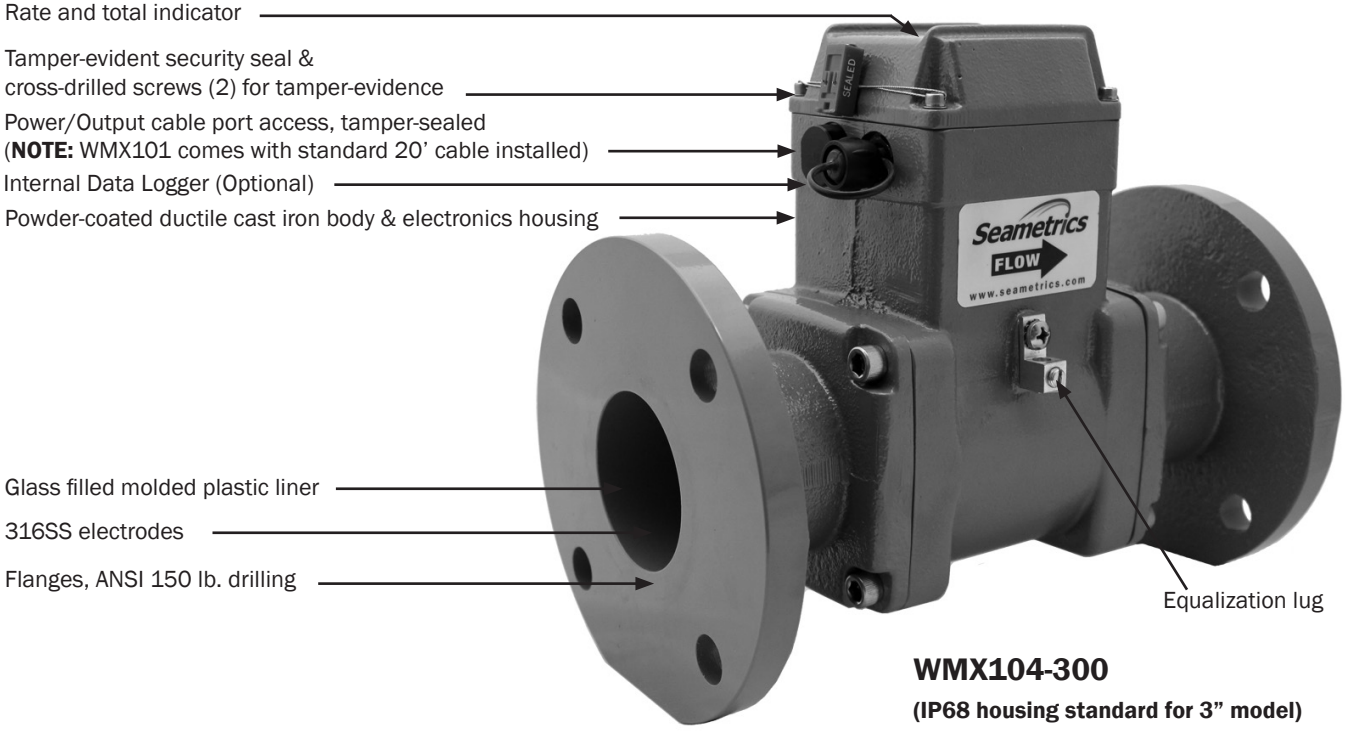
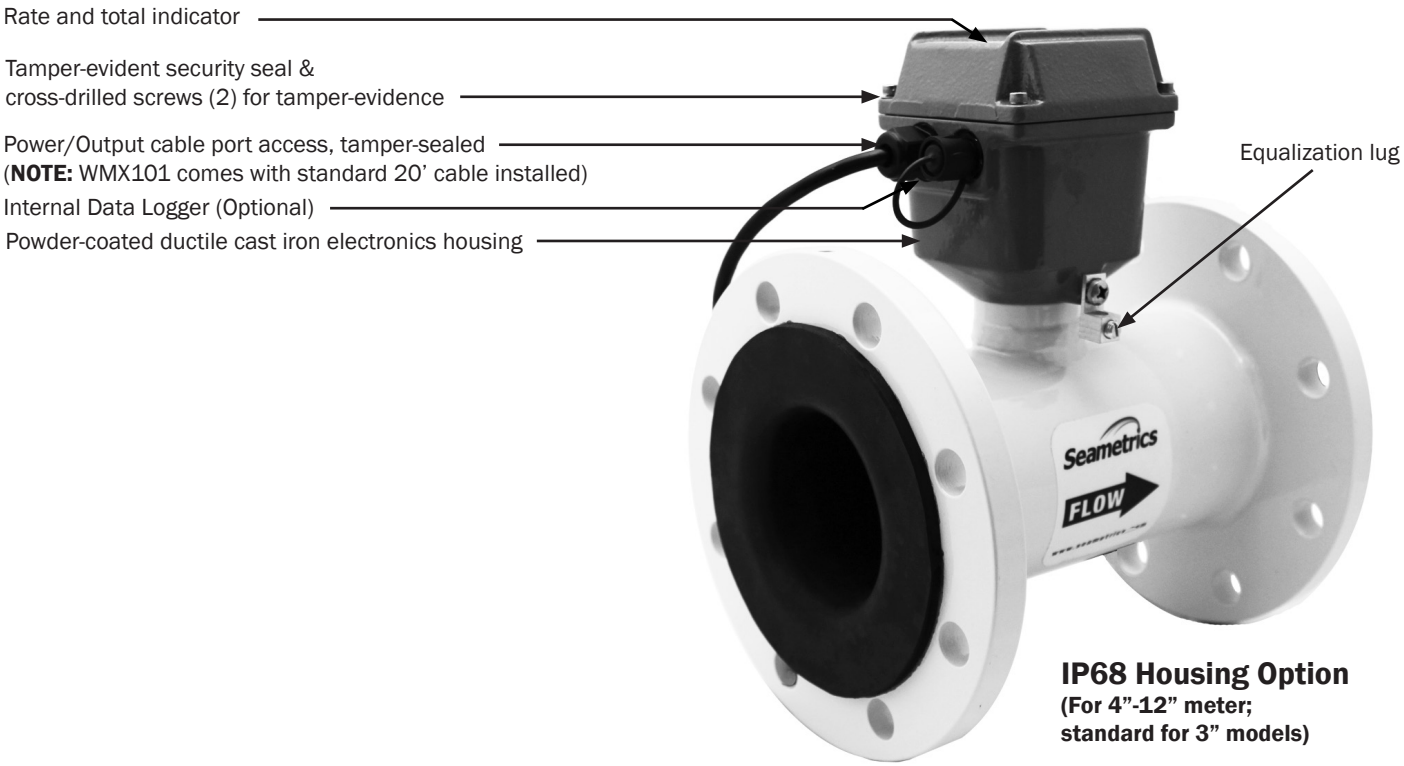
FEATURES Continued



WMX104-300
(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					
	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, Liter/Second, Cubic Feet/Minute, Cubic Meter/Hour, Million Gallon/Day, Mega Liter/Day				Gallon, Gallon x 1000, Liter, Liter x 1000, Mega Liter, Cubic Meters, Cubic Meter x 1000, Cubic Feet, Cubic Feet x 1000	
Power		**WMX101:** 8-32 Vdc at 30 mA max, with auxiliary battery for continuous operation during power failures NOTE: Using an unregulated power supply >18 Vdc may damage the meter due to AC line input voltage fluctuation					
		WMX104: 2 Lithium 3.6V "D" batteries, replaceable, 1 year life under continuous use.					
Pulse Output	**Signal**	**WMX101:** Current sinking pulse, opto-isolated, 30 Vdc at 10 mA max					
		WMX104: Pulse output available only with addition of post-factory output cable					
	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	2.150	1.530
Conductivity		>20 microSiemens/cm					
Empty Pipe Detection		Hardware/software, conductivity-based					
Regulatory		NSF-61 (4" - 12" only)					
Environmental		NEMA 4X Standard (IP68 Option)					

**Specifications subject to change. Please consult our website for the most current data (www.seametrics.com).*

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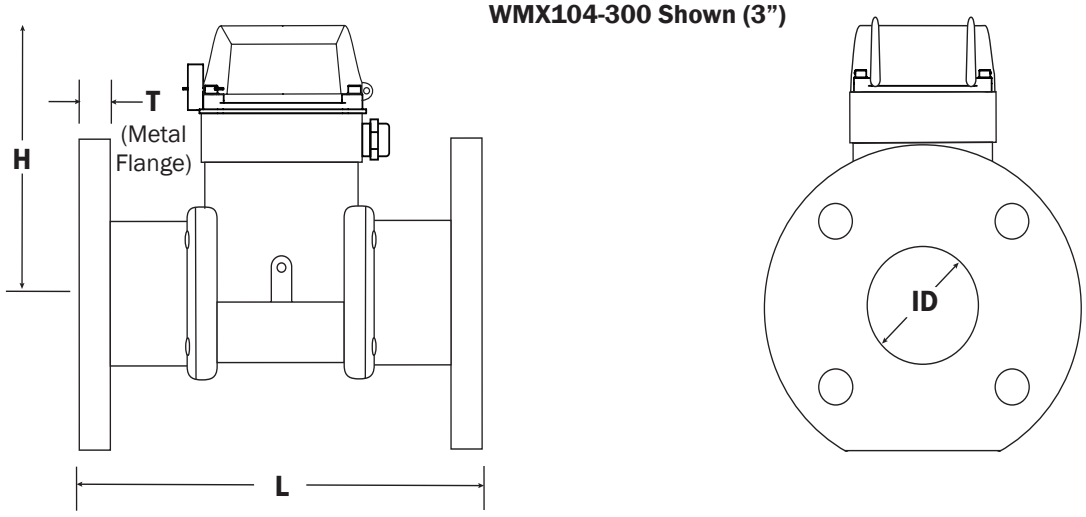
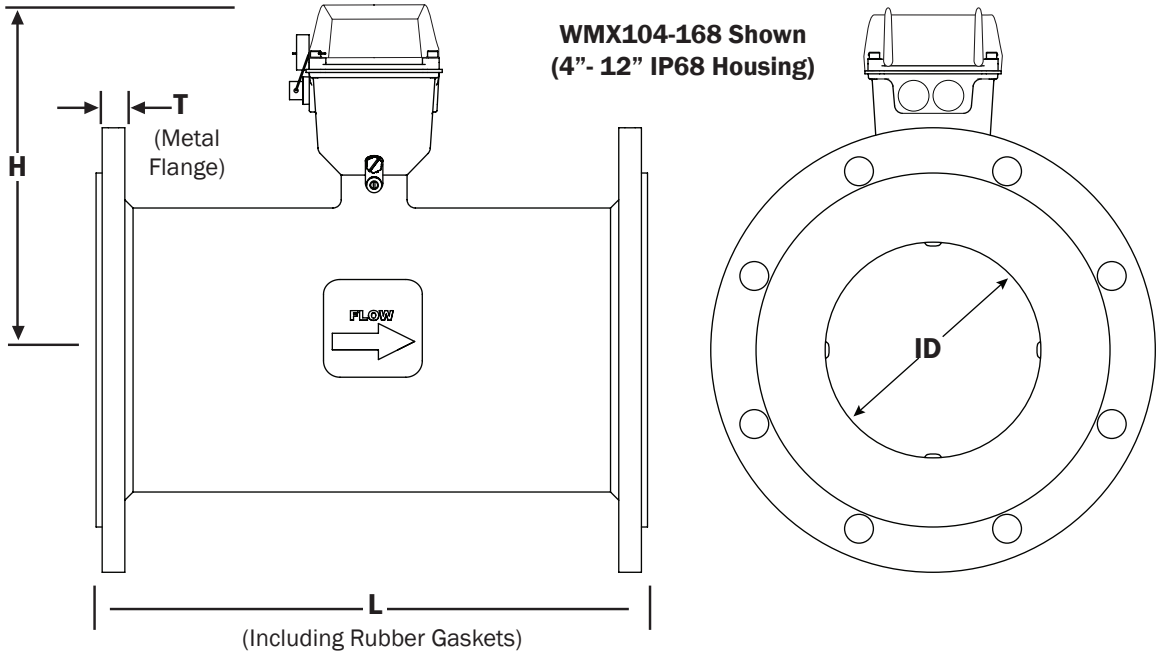
DIMENSIONS

WMX104-300 Shown (3”)



WMX104-168 Shown
(4”- 12” IP68 Housing)



WMX101-168/104-168 (IP68 Housing)

IP68 WMX 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 (WMX 101) 1 lb.	

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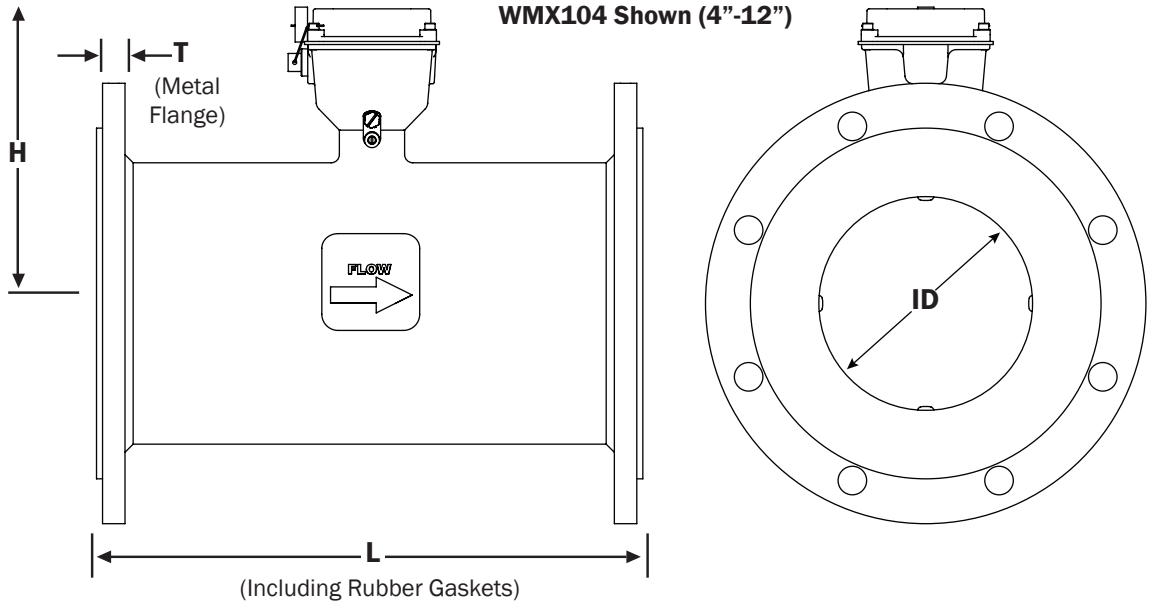
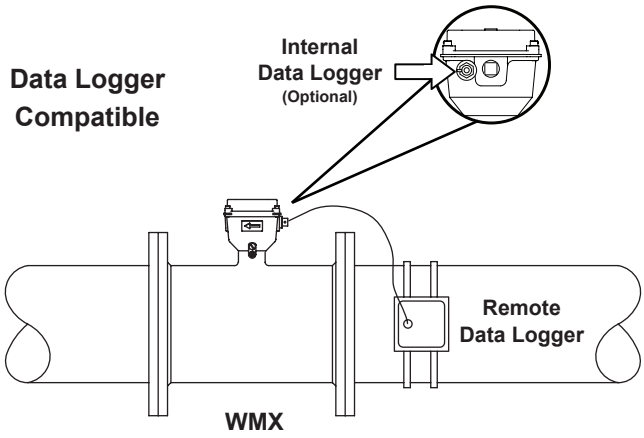
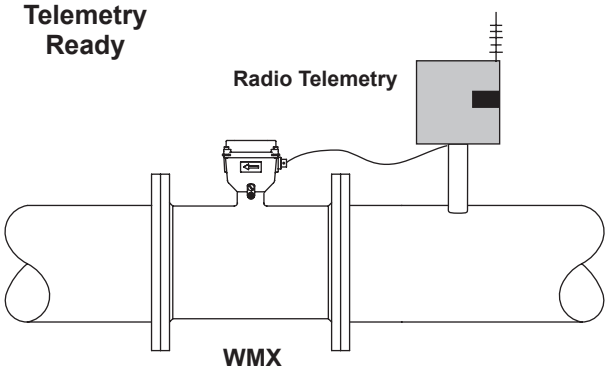


WMX101/104 (Standard Housing)

Standard WMX 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 (WMX 101) 1 lb.	

OUTPUT CAPABILITIES



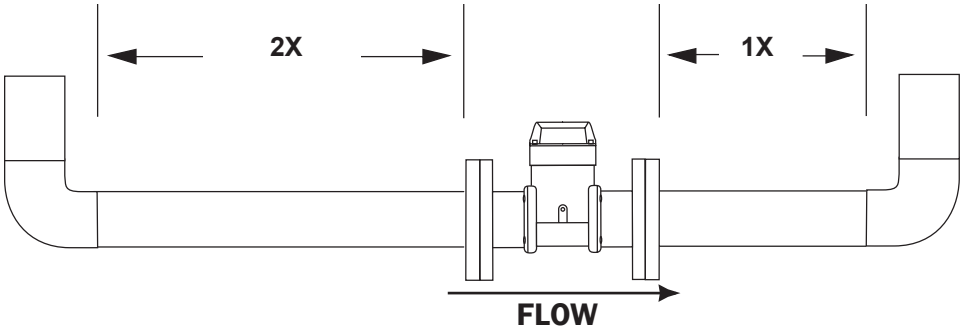


STRAIGHT PIPE RECOMMENDATIONS

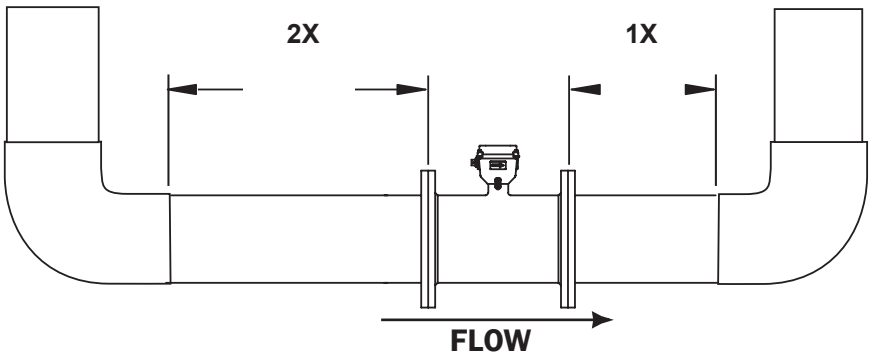
(X = pipe diameter)

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

External power **= WMX101**
Battery power **= WMX104**

SIZE

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

*-**300** available in IP68 only

OPTIONS

High Frequency = -**HF**
10 Units**/Pulse = -**PxX**
100 Units**/Pulse = -**PxH**
1000 Units**/Pulse = -**PxK**
Factory Installed Pwr/Out Cable
- 6m (20 ft) = **-11/6**
- 15m (50 ft) = **-11/15**
- 30m (100 ft) = **-11/30**

Factory Installed IP68 Pwr/Out 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**

**Units = Gal or Liter depending on Rate/Total unit selection

FLOW MEASUREMENT UNITS

RATE	ORDER
Gal/Min	= **GPM**
Liter/Min	= **LPM**
Liters/Sec	= **LPS**
Cu Ft/Min	= **CFM**
Cu Meter/Hr	= **CMH**
Mil Gal/Day	= **MGD**
Meg Lit/Day	= **MLD**

TOTAL	ORDER
Gal	= **G**
Gal x 1000	= **GT**
Liter	= **L**
Liter x 1000	= **LT**
Mega Liters	= **ML**
Cubic Meters	= **CM**
Cu Met x 1000	= **CMT**
Cubic Feet	= **CF**
Cu Feet x 1000	= **CFT**

Consult factory for additional units
Any rate selection can be combined with any total selection

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 for WMX101 = **101317**

Replacement Battery Pack for WMX104 = **100889**

Post-Factory 20-ft. Power/Output Cable (WMX104 Standard Housing Only) = **DC30**

Post-Factory 50-ft. Power/Output Cable (WMX104 Standard Housing Only) = **DC35**

Post-Factory 100-ft. Power/Output Cable (WMX104 Standard Housing Only) = **DC100**

Post-Factory 20-ft. Power/Output Cable (WMX104 IP68 Housing Only) = **DC30S**

Post-Factory 50-ft. Power/Output Cable (WMX104 IP68 Housing Only) = **DC35S**

Post-Factory 100-ft. Power/Output Cable (WMX104 IP68 Housing Only) = **DC100S**

Grounding Rings
(not needed for most applications):

3” = **102157**
4” = **100876**
6” = **100877**
8” = **100878**
10” = **100879**
12” = **103288**

CONTACT YOUR SUPPLIER

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