

WMX-Series Flanged Magmeter



Features

- No moving parts
- 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



Unobstructed Flow

Seametrics' series of standard and IP68 (submersible) flanged magmeters. Available in sizes from 3" up to 10".



WMX-Series Flanged Magmeter

General Information

The WMX-Series are flanged electromagnetic flowmeters for use in 3" to 10" 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.

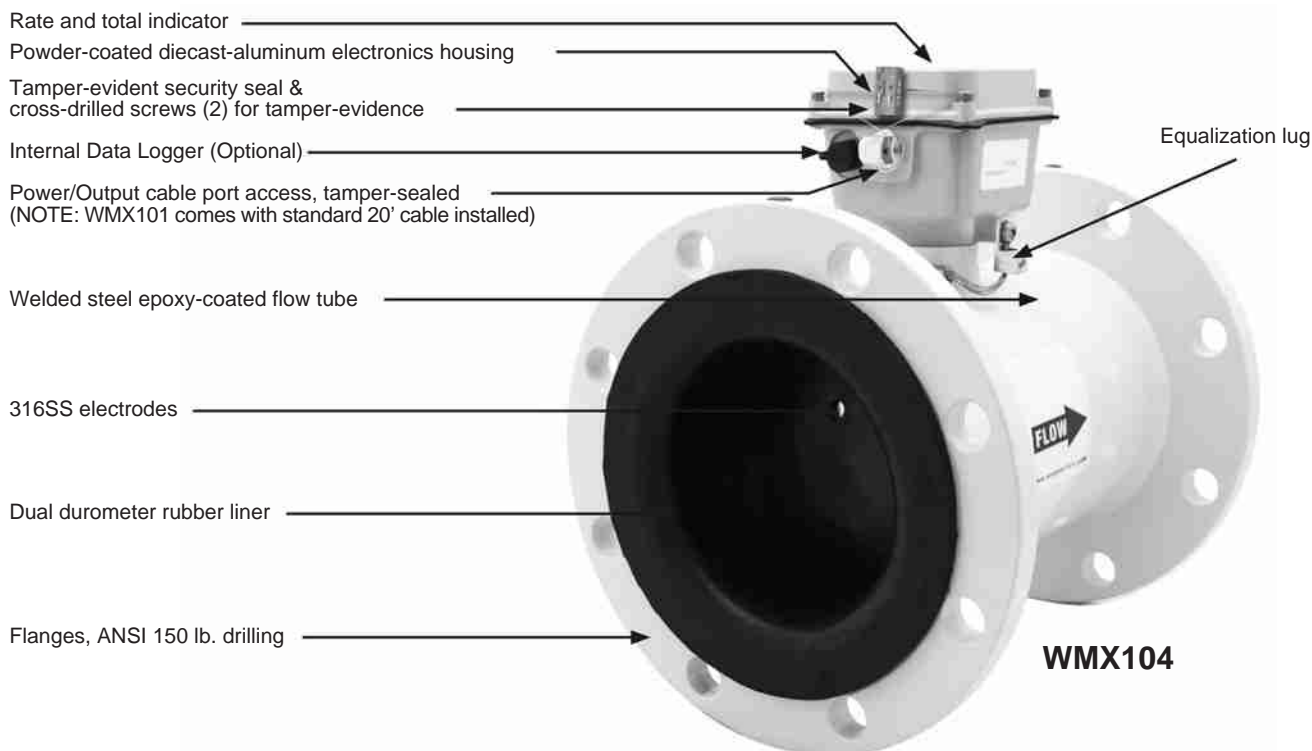
Rate and total indication are standard on both models. Units are customer-selected and factory-set. No set-up is required.

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.

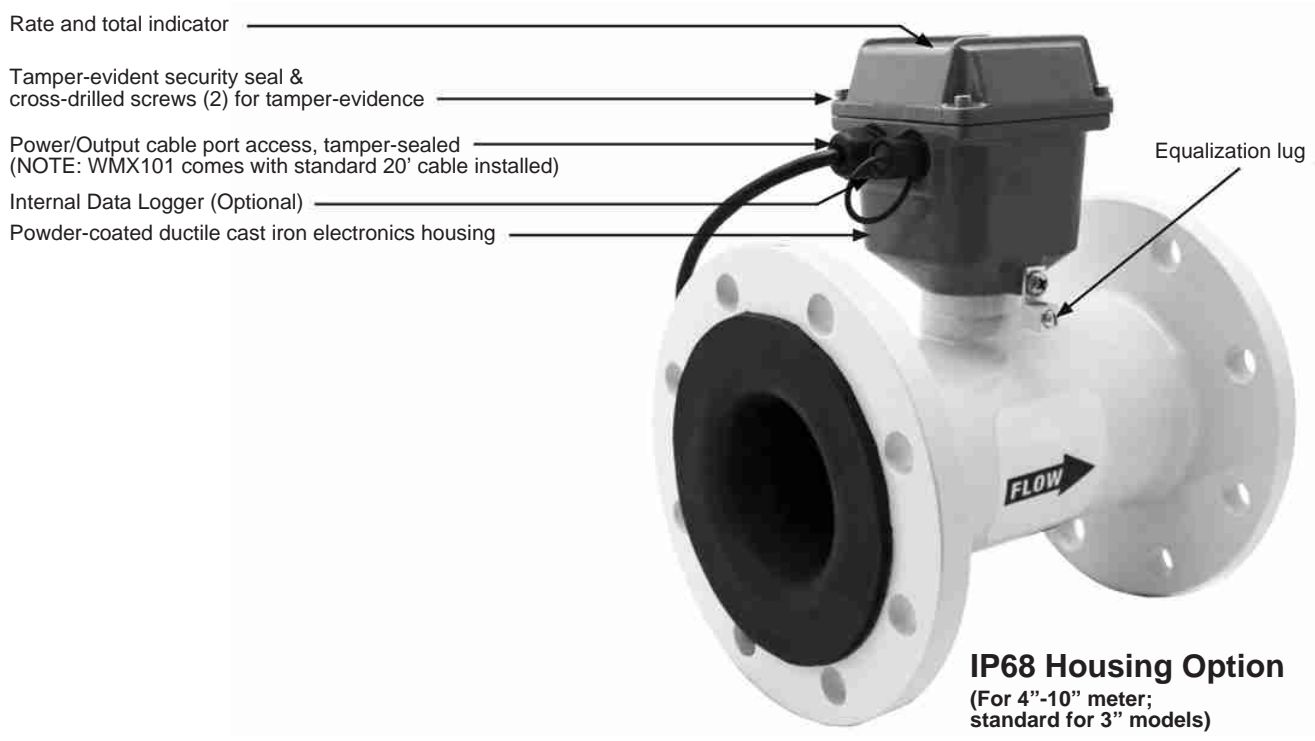
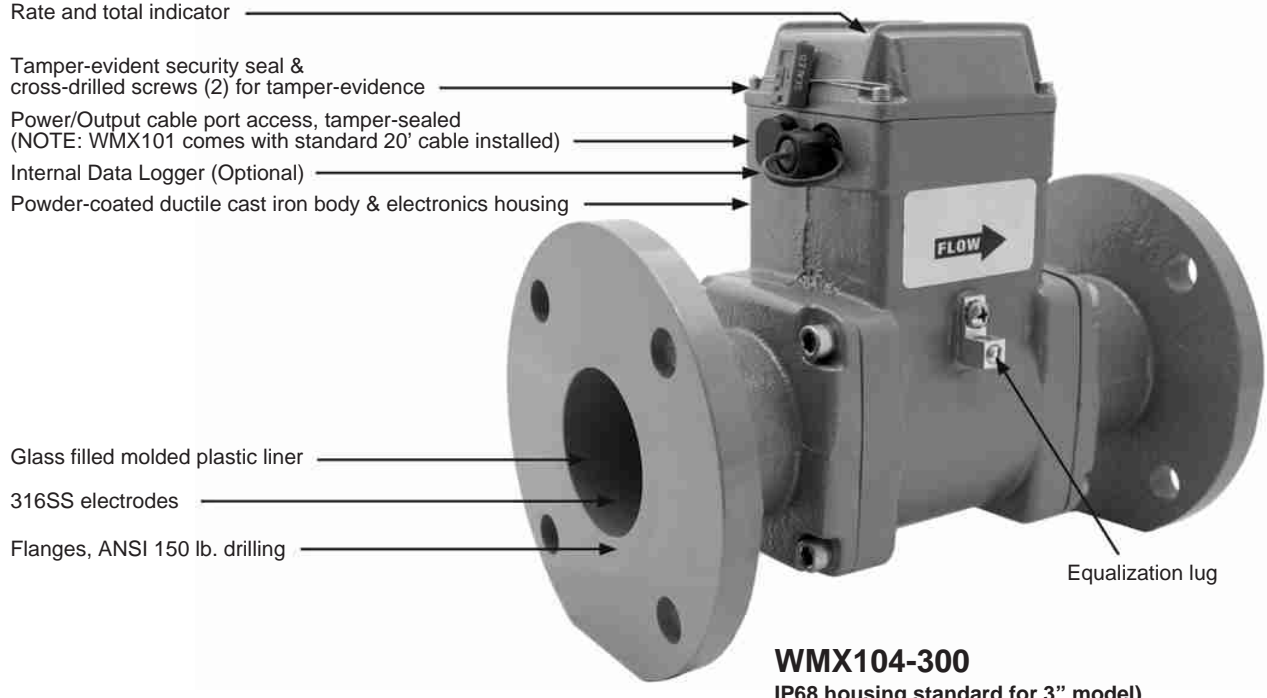
The **WMX104** is a battery-operated unit for use when pulse output is not required. Two Lithium 3.6V "D" batteries provide power and are replaceable with an approximate 1-year life under continuous use, or more depending on the duty cycle. An optional input/output cable can be installed post-factory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

Features



WMX-Series Flanged Magmeter

Features Continued

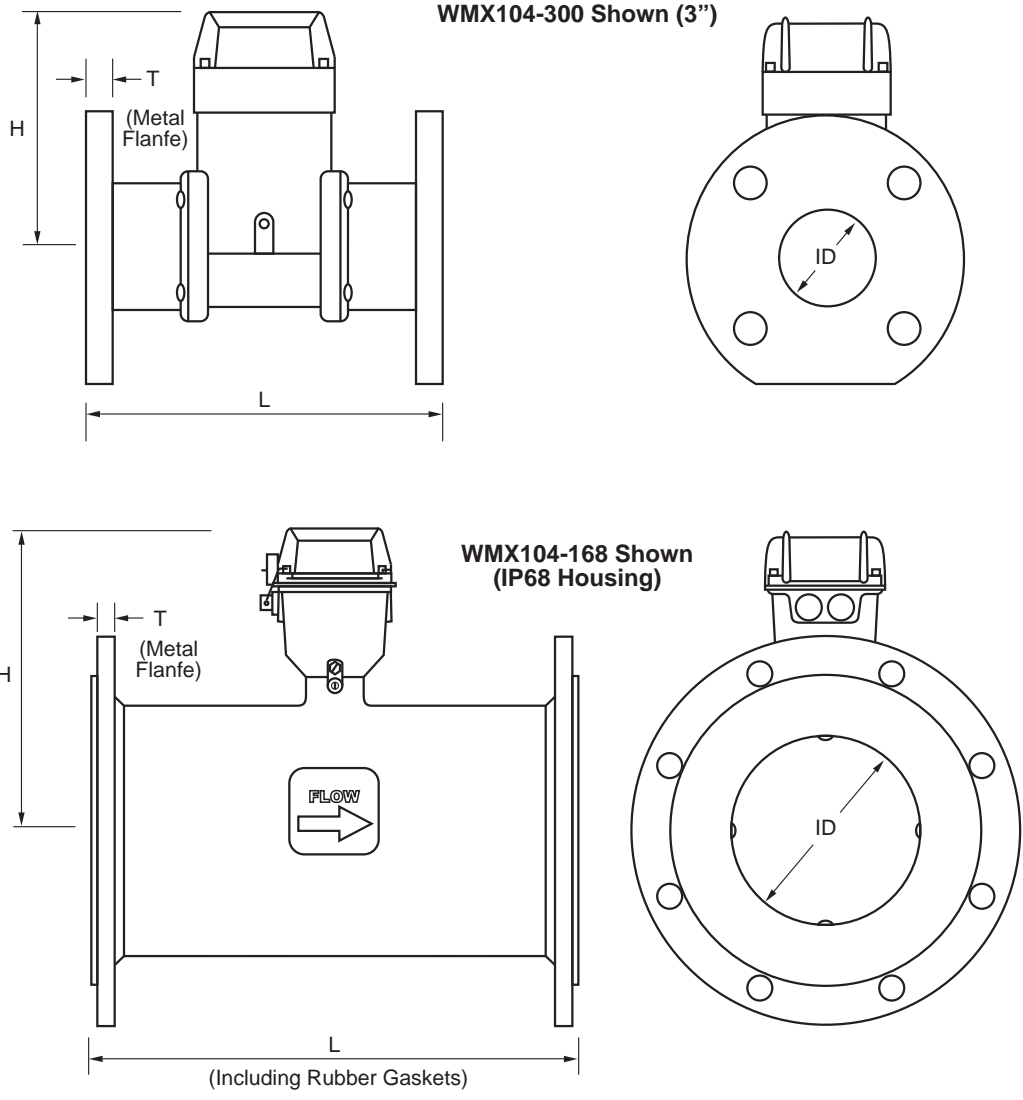


WMX-Series Flanged Magmeter

Specifications*						
Pipe Sizes	3", 4", 6", 8", 10"					
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"-10")	Welded steel, epoxy-coated					
Liner (3" Only)	Noryl®					
Liner (4"-10")	Dual durometer rubber					
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 (default); 10 units/pulse; 100 units/pulse; 1000 units/pulse				
	High Frequency (pulse/gal)	3"	4"	6"	8"	10"
		25.228	16.362	6.307	3.344	2.150
Conductivity	>20 microSiemens/cm					
Empty Pipe Detection	Hardware/software, conductivity-based					
Environmental	Hardware/software, conductivity-based					

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Dimensions



WMX104-168 Shown (IP68 Housing)

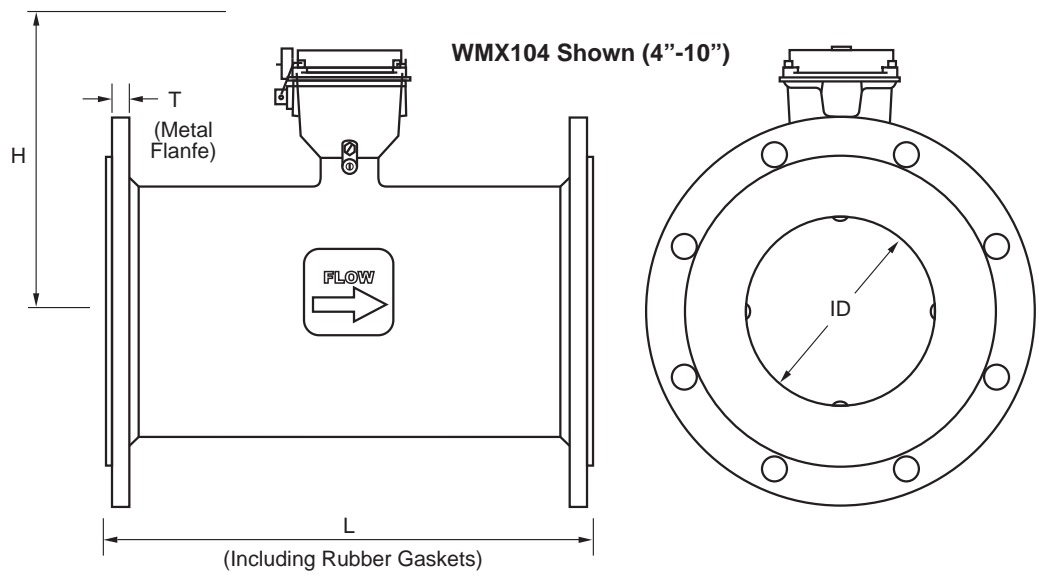
IP68 WMX Meter Size	L		H		T		ID		Shipping Weight IP68 Version	
	inch	mm	inch	mm	inch	mm	inch	mm	pounds	kg
3"	12.0	305	6.80	173	.68	17.3	2.60	66.04	41	19
4"	10.24	260	8.12	206	.62	20.9	3.12	79.25	35	16
6"	12.27	312	9.22	234	.69	23.3	5.05	128.27	50	23
8"	14.24	362	10.22	260	.69	23.3	6.44	163.58	72	33
10"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

Flanges

Standard ANSI 150 lb. drilling

Cable (WMX 101) 1 lb.

WMX-Series Flanged Magmeter



WMX101-104 (Standard Housing)

IP68 WMX Meter Size	L		H		T		ID		Shipping Weight IP68 Version	
	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

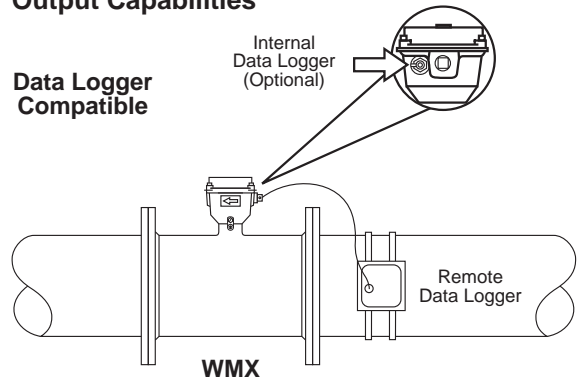
Flanges

Standard ANSI 150 lb. drilling

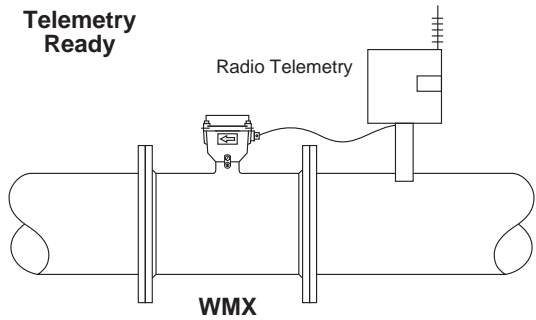
Cable (WMX 101) 1 lb.

Output Capabilities

Data Logger Compatible



Telemetry Ready



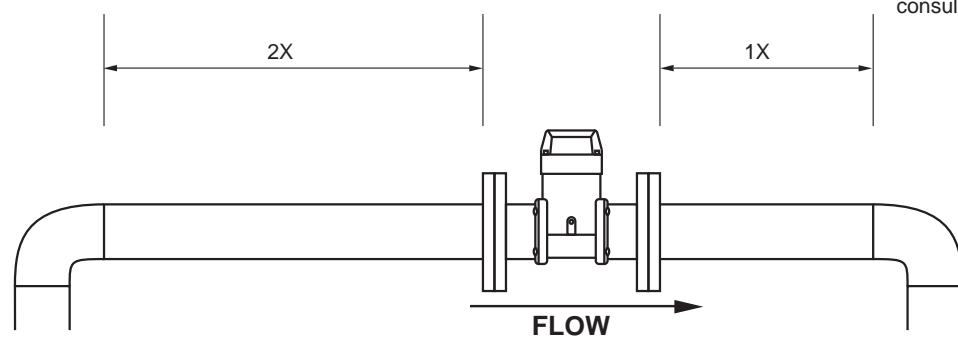
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Straight Pipe Recommendations

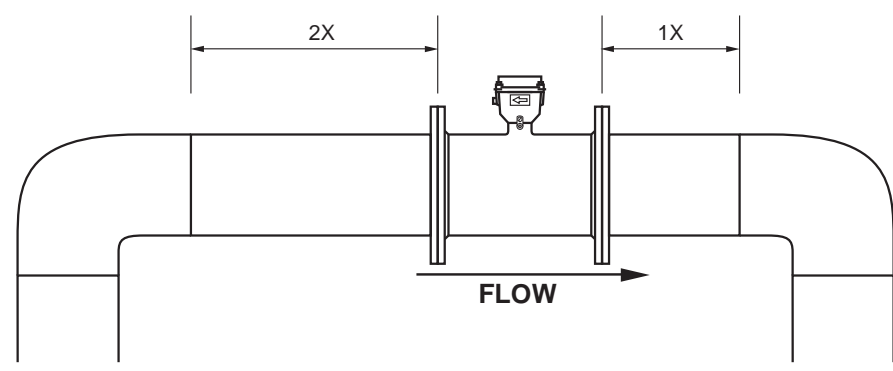
(X = pipe diameter)

Minimal straight pipe required between elbows.

For other piping configurations, consult factory.



(X = pipe diameter)



Flow Range (3" - 10")

Meter Size	3"		4"		6"		8"		10"	
	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
Maximum	700	44.2	1.000	63	2.400	151.4	4.400	277.6	7.000	441.6



WMX-Series Flanged Magmeter

How to Order

Model	Size	Options	Flow Measurement Units			
			Rate	Order	Total	Order
External power = WMX101	3" = -300*	High Frequency = -HF	Gal/Min	= GPM	Gal	= G
Battery power = WMX104	4" = -400	10 Units**/Pulse = -PxX	Liter/Min	= LPM	Gal x 1000	= GT
	6" = -600	100 Units**/Pulse = -PxH	Liters/Sec	= LPS	Liter	= L
	8" = -800	1000 Units**/Pulse = -PxK	Cu Ft/Min	= CFM	Liter x 1000	= LT
	10" = -1000	Internal Data Logger = -127	Cu Meter/Hr	= CMH	Mega Liters	= ML
		IP68 Submersible = -168	Mil Gal/Day	= MGD	Cubic Meters	= CM
			Meg Lit/Day	= MLD	Cu Met x 1000	= CMT
					Cubic Feet	= CF
					Cu Feet x 1000	= CFT

*-300 available in IP68 only

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

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 = 32186
- Replacement Battery Pack for WMX104 = 31126
- 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 20-ft. Power/Output Cable
 (WMX104 IP68 Housing Only) = DC30S
- Post-Factory 50-ft. Power/Output Cable
 (WMX104 IP68 Housing Only) = DC35S
- Grounding Rings
 (not needed for most applications):
- 3" = 33508
- 4" = 31090
- 6" = 31091
- 8" = 31092
- 10" = 31093