

WATER METERS

'M' AND 'WMR' WATER METERS

INDUSTRY'S SMALLEST WATER METERS WITH THE BEST PERFORMANCE



**'M' WATER METER
(COPPER ALLOY BODY)**



**'M' WATER METER
(PLASTIC BODY)**



**'WMR' WATER METER
(CAST IRON BODY)**

PRODUCT ADVANTAGES

- Industry's smallest water meters provide $\pm 2\%$ accuracy over a wide range of flows.
- Magnetically driven sealed register are stainless steel encapsulated and guaranteed not to accumulate moisture or fog.
- 'M' Water Meters utilize the multi-jet principle assuring an equally distributed load on the impeller minimizing wear and maintaining accuracy.
- 'M' Water Meters have only one moving part, the impeller, is in contact with the water for minimum wear and the utmost reliability.
- 'WMR' Water Meters contain an in-line axial turbine which allows foreign matter to pass through the meter without clogging.
- Wide clearances in the measuring chamber provide full pipe flow measurements and high reliability.

APPLICATIONS

- For main supply lines in agriculture and landscape applications

SPECIFICATIONS - 'M' WATER METERS

- Iron Body Sizes: 3/4", 1" and 1 1/2"
- Plastic Body Sizes: 3/4" and 1"
- Maximum Working Pressure: 140 psi
- Maximum Liquid Temperature: 122° F
- Body Material: Corrosion Proof Copper Alloy or Polypropylene (plastic)
- Connections: Male Pipe Thread
- Register Options: Reed Switch, Photo Diode or ER Digital
- Reed Switch Register Pulse Outputs: 0.1 or 1.0
- Photo Diode Register Pulse Outputs: 0.0015, 0.0021 or 0.0074
- ER Digital Register Pulse Outputs:
Gallons - .1, 1, 10, 100, 1000
Acre Feet - .0001, .001, .01, .1
- Straight Pipe Installation Requirement: None

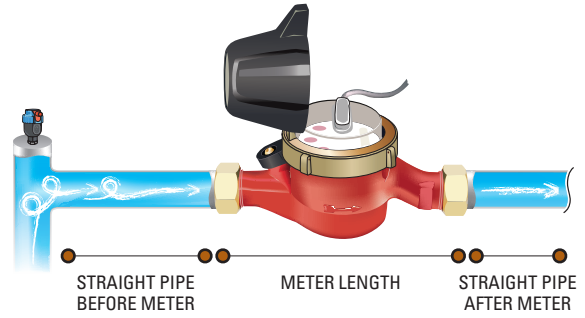
SPECIFICATIONS - 'WMR' WATER METER

- Size: 2"
- Maximum Working Pressure: 230 psi
- Maximum Liquid Temperature: 131° F
- Body Material: Cast Iron with Polyester Coating
- Connections: Male Pipe Thread
- Register Options: Reed Switch, Photo Diode or ER Digital
- Reed Switch Register Pulse Outputs: 10 or 3.26
- Photo Diode Register Pulse Outputs: 1.0 or 0.055
- ER Digital Register Pulse Outputs:
Gallons - .1, 1, 10, 100, 1000
Acre Feet - .0001, .001, .01, .1
- Straight Pipe Installation Requirement: 10 x D upstream and 5 x D downstream (D=meter size)

'M' AND 'WMR' WATER METERS

STRAIGHT PIPE INSTALLATION REQUIREMENT

METER SIZE	UPSTREAM DISTANCE	DOWNSTREAM DISTANCE	METER LENGTH	TOTAL REQUIREMENT
'M' WATER METERS - 0 D X 0 D				
3/4"	0"	0"	11 1/4"	11 1/4"
1"	0"	0"	14 3/4"	14 3/4"
1 1/2"	0"	0"	17 1/4"	17 1/4"
'WMR' WATER METER - 10 D X 5 D				
2"	20"	10"	14"	44"



INSTALLATION REQUIREMENTS

'M' WATER METERS

- Dial face must be horizontal
- There are no straight pipe installation requirements
- Prior to installation of the meter, the pipeline should be thoroughly flushed
- Meter must be installed so that the pipe will be full of water at all times during metering
- To eliminate air in the system, continuous acting air vents of proper size and type are required

INSTALLATION REQUIREMENTS

'WMR' WATER METER

- The meter may be installed in any position - for non-horizontal positions, the flow should be upwards
- Straight pipe installation requirement of 10 x diameter pipe upstream (before the meter) and 5 x diameter pipe downstream (after the meter)
- Prior to installation of the meter, the pipeline should be thoroughly flushed
- Meter must be installed so that the pipe will be full of water at all times during metering
- To eliminate air in the system, continuous acting air vents of proper size and type are required

REED SWITCH REGISTERS

METER SIZE	REGISTER TOTALIZER	VOLUME UNIT	PULSE OUTPUT (GALS/PULSE)	POINTER RESOLUTION		
				POINTER 1	POINTER 2	POINTER 3
3/4" 'M'	GALLON	GALLON x 10	0.1	x 0.01 GALLON	x 0.1 GALLON	x 1.0 GALLON
3/4", 1" & 1 1/2" 'M'	GALLON	GALLON x 100	1.0	x 0.10 GALLON	x 1.0 GALLON	x 10 GALLON
2" 'WMR'	GALLON	GALLON x 1,000	10	x 1.0 GALLON	x 10 GALLON	x 100 GALLON
2" 'WMR'	ACRE FEET	ACRE FEET x 1,000	3.26	x 0.000001	x 0.00001	x 0.0001



PHOTO DIODE REGISTERS

METER SIZE	REGISTER TOTALIZER	VOLUME UNIT	FLOW RATE UNITS	POINTER RESOLUTION		
				POINTER 1	POINTER 2	POINTER 3
3/4" 'M'	GALLON	GALLON x 10	0.0015	x 0.01 GALLON	x 0.1 GALLON	x 1.0 GALLON
1" 'M'	GALLON	GALLON x 100	0.0021	x 0.1 GALLON	x 1.0 GALLON	x 10 GALLON
1 1/2" 'M'	GALLON	GALLON x 100	0.0074	x 0.1 GALLON	x 1.0 GALLON	x 10 GALLON
2" 'WMR'	GALLON	GALLON x 1,000	1.0	x 1.0 GALLON	x 10 GALLON	x 100 GALLON
2" 'WMR'	GALLON	GALLON x 1,000	0.055	x 1.0 GALLON	x 10 GALLON	x 100 GALLON



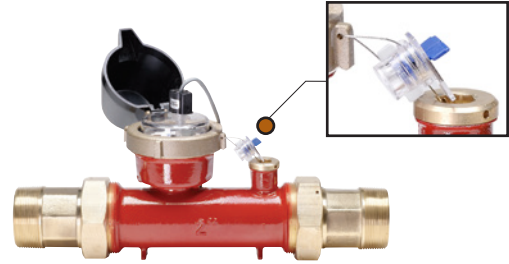
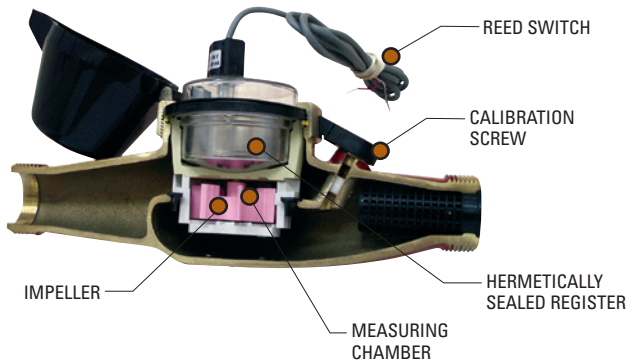
ELECTRONIC (ER) DIGITAL REGISTERS

METER SIZE	REGISTER TOTALIZER	PULSE OUTPUT (GALS/PULSE)	FLOW RATE UNITS
3/4", 1", 1 1/2" 'M'	GALLON	.1, 1, 10, 100, 1000	GPM
3/4", 1", 1 1/2" 'M'	ACRE FEET	.0001, .001, .01, .1	GPM
2" 'WMR'	GALLON	.1, 1, 10, 100, 1000	GPM
2" 'WMR'	ACRE FEET	.0001, .001, .01, .1	GPM



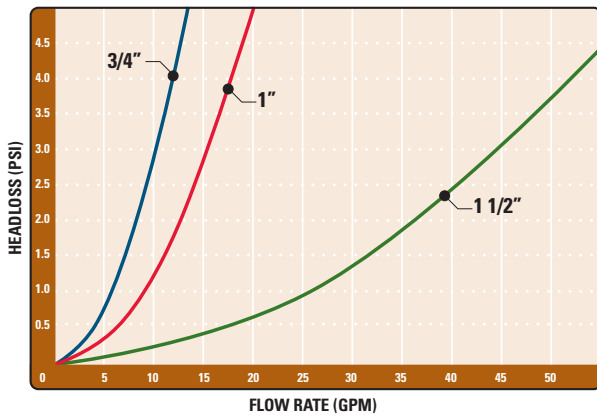
'M' AND 'WMR' WATER METERS

'M' WATER METER CUT-AWAY VIEW

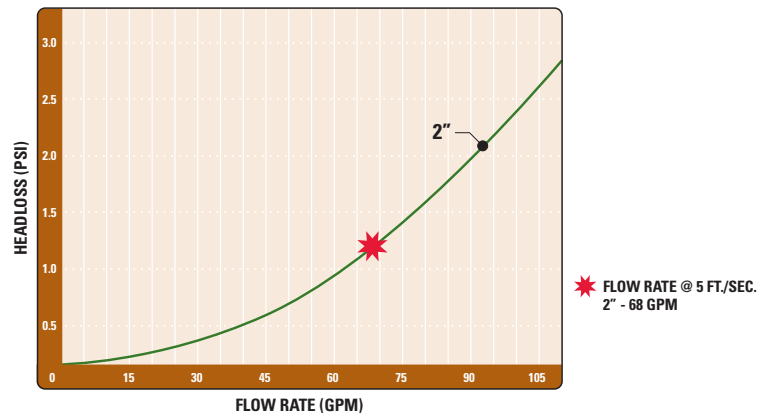


'WMR' METER TAMPER PROOF SEAL
ENSURES UNAUTHORIZED REMOVAL AND/OR TAMPERING OF THE METER REGISTER

'M' WATER METERS HEADLOSS CHART



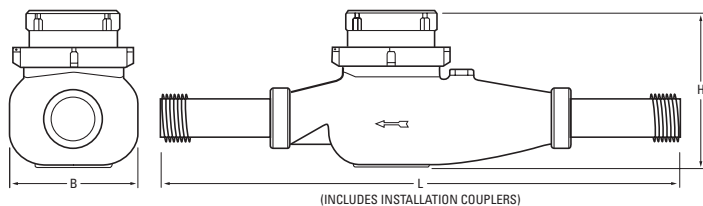
'WMR' WATER METER HEADLOSS CHART



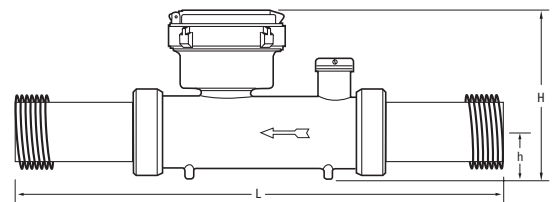
PERFORMANCE DATA

METER SIZE	LOWEST FLOW RATE +/- 5% ACCURACY	LOWEST FLOW RATE +/- 2% ACCURACY	NOMINAL FLOW RATE +/- 2% ACCURACY	MAXIMUM FLOW RATE +/- 2% ACCURACY
3/4" 'M'	0.2 GPM	0.9 GPM	11 GPM	14 GPM
1" 'M'	0.3 GPM	1.2 GPM	15.4 GPM	20 GPM
1 1/2" 'M'	0.9 GPM	3.5 GPM	44 GPM	55 GPM
2" 'WMR'	2.0 GPM	8.8 GPM	88 GPM	110 GPM

'M' WATER METERS



'WMR' WATER METER



DIMENSIONS & WEIGHT

METER SIZE	H HEIGHT	h HEIGHT	L LENGTH	B WIDTH	WEIGHT PLASTIC	WEIGHT IRON
3/4" 'M'	4 1/4"	-	11 1/4"	3 3/4"	3.5 LBS.	4.4 LBS.
1" 'M'	4 1/4"	-	14 3/4"	4 1/4"	4.8 LBS.	6.1 LBS.
1 1/2" 'M'	6 3/4"	-	17 1/4"	15"	-	15 LBS.
2" 'WMR'	4 3/4"	1 1/2"	14"	-	-	11 LBS.

'M' AND 'WMR' WATER METERS

ORDERING INFORMATION - REED SWITCH AND PHOTO DIODE REGISTERS

ITEM NUMBER	MODEL NUMBER	METER SIZE	BODY MATERIAL	REGISTER TYPE	GALLONS PER PULSE
70261-002446	36M201TP.1	3/4" 'M'	PLASTIC	REED SWITCH/GALLON	0.1
70261-002472	36M201TP1			REED SWITCH/GALLON	1.0
70261-002473	36M201TP.0015			PHOTO DIODE	0.0015
70261-002715	36M251TP	1" 'M'	PLASTIC	REED SWITCH/GALLON	1.0
70261-002727	36M251TP.0021			PHOTO DIODE	0.0021
70261-002445	36M201T.1	3/4" 'M'	COPPER ALLOY	REED SWITCH/GALLON	0.1
70261-002450	36M201T			REED SWITCH/GALLON	1.0
70261-002447	36M201T.0015			PHOTO DIODE	0.0015
70261-002720	36M251T	1" 'M'	COPPER ALLOY	REED SWITCH/GALLON	1.0
70261-002725	36M251T.0021			PHOTO DIODE	0.0021
70261-003230	36M401.5T	1 1/2" 'M'	COPPER ALLOY	REED SWITCH/GALLON	1.0
70261-003240	36M401.5T.0074			PHOTO DIODE	0.0074
70261-005060	36WMR2T10	2" 'WMR'	CAST IRON	REED SWITCH/GALLON	10
70261-004900	36WMR2T10-AF			REED SWITCH/ACRE FEET	3.26
70261-005050	36WMR2T1			PHOTO DIODE	1.0
70261-005010	36WMR2T.055			PHOTO DIODE	0.055



PLASTIC 'M' WATER METERS



COPPER ALLOY 'M' WATER METERS



CAST IRON 'WMR' WATER METER

ORDERING INFORMATION - ER DIGITAL REGISTERS

36

MODEL SIZE REGISTER VOLUME FLOW RATE OUTPUT 1 OUTPUT 2 DIRECTION

MODEL	SIZE	REGISTER	VOLUME	FLOW RATE	OUTPUT 1 AND OUTPUT 2 *	FLOW DIRECTION
M	201TP = 3/4" P	ER = ER DIGITAL REGISTER	1 = GALLONS	1 = GPM	A = NO OUTPUT	F = FORWARD
WMR	251TP = 1" P		2 = ACRE FEET	C = .1 GALLON PER PULSE	R = REVERSE	
	201T = 3/4" CA	EM = ER DIGITAL REGISTER W/OUTPUT MODULE			D = 1 GALLON PER PULSE	A = ALTERNATING
	251T = 1" CA		E = 10 GALLONS PER PULSE			N = NET
	401.5T = 1 1/2" CA		F = 100 GALLONS PER PULSE			
	2T = 2" IRON		G = 1000 GALLONS PER PULSE			
			H = 0.0001 ACRE FT. PER PULSE			
		I = 0.001 ACRE FT. PER PULSE				
		J = 0.01 ACRE FT. PER PULSE				
		K = 0.1 ACRE FT. PER PULSE				

M 3/4" - 1 1/2" Sizes only
WMR 2" Size only
P = Plastic body
CA = Copper Alloy body

ORDERING EXAMPLE:

36WMR2TER11EEF

2" WMR Series Water Meter, ER Register,
 Volume in Gallons, Flow Rate in Gallons per Minute,
 Pulse Output 1 is 10 Gallons per Pulse, Pulse Output 2
 is 10 Gallons per Pulse, Forward Flow Direction

* Pulse rate is based on volume units.
 If volume is in Acre Feet and Option D is chosen for
 Output 1 or 2, it will result in 1 pulse every acre foot
 of water that passes through the meter.
 To convert Acre Feet to Gallons per Pulse, multiply
 by 325,850.

INDUSTRY'S LONGEST WARRANTY

Netafim stands behind our water meters with an unprecedented warranty - the industry's longest - three (3) years on the metering components (register and metering assembly) and five (5) years on the meter body.



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