

## Water Meter Categories

H2O Degree Water Meters	Flow rate gpm	Install orientation	Max pressure psi	Meter Size	Meter (lay) Length	Weight lb.	Temperature limit (deg. F)	Cost \$ to \$\$\$	Description	H2O Degree Equipment to use
M54120 battery powered	0.25 - 8	vertical or horizontal	145	1/2"x3/4"	2-1/4 - 10"	< 8oz	150	\$	Can be used for water flow measurement at point of use (directly on a water appliance) or point of entry (where water enters a living space at one location). Utilizes a turbine with a sapphire bearing, and North/South positioned magnets across a Hall Cell.	requires PL series hose assembly
M54122 line powered	0.25 - 8	vertical or horizontal	145	1/2"x3/4"	2-1/4 - 10"	< 8oz	150	\$	Can be used for water flow measurement at point of entry (where water enters a living space at one location). Utilizes a turbine with a sapphire bearing, and North/South positioned magnets across a Hall Cell.	requires PL series hose assembly
M54222 line powered	0.25 - 10.8	vertical or horizontal	145	1"	5-10"	< 6oz	140	\$	Can be used for water flow measurement at point of entry (where water enters a living space at one location). Utilizes a turbine with a sapphire bearing, and North/South positioned magnets across a Hall Cell.	requires PL series hose assembly
Pulse Meters	Flow rate gpm	Install orientation	Max pressure psi	Meter Size	Meter (lay) Length	Weight lb.	Temperature limit (deg. F)	Cost \$ to \$\$\$	Description	H2O Degree Equipment to use
Turbine	2 - 132	horizontal only	230	2 to 8"	7.9-13.8"	26-112	cold 105	\$\$\$	Turbine meters are less accurate than displacement and jet meters at low flow rates, but the measuring element does not occupy or severely restrict the entire path of flow. The flow direction is generally straight through the meter, allowing for higher flow rates and less pressure loss than displacement-type meters. They are the meter of choice for large commercial users, fire protection and as master meters for the water distribution system. Strainers are generally required to be installed in front of the meter to protect the measuring element from gravel or other debris that could enter the water distribution system.	M54130 and PS1001
Single Jet	0.25 - 22	horizontal only	150	3/4"	5"	1.5	cold 105	\$	The speed of the flow is converted into volume of flow to determine the usage. There are several types of meters that measure water flow velocity, including jet meters (single-jet and multi-jet), turbine meters, propeller meters and mag meters. Most velocity-based meters have an adjustment vane for calibrating the meter to the required accuracy.	M54130 and PS1001
Multi Jet	0.25 - 20	vertical or horizontal	150	3/4 to 2"	11-1/2 - 21"	4 to 14	cold 105	\$\$	The speed of the flow is converted into volume of flow to determine the usage. There are several types of meters that measure water flow velocity, including jet meters (single-jet and multi-jet), turbine meters, propeller meters and mag meters.	M54130 and PS1001
Positive Displacement	0.25 - 30	vertical or horizontal	150	5/8 x 3/4 - 2"	7-1/2" - 17"	6 to 35	cold 105	\$\$\$	This type of water meter is most often used in residential and small commercial applications. Displacement meters are commonly referred to as Positive Displacement, or "PD" meters. Two common types are oscillating piston meters and nutating disk meters. Either method relies on the water to physically displace the moving measuring element in direct proportion to the amount of water that passes through the meter. The piston or disk moves a magnet that drives the register.	M54130 and PS1001
Encoded Meters	Flow rate gpm	Install orientation	Max pressure psi	Meter Size	Meter (lay) Length	Weight lb.	Temperature limit (deg. F)	Cost \$ to \$\$\$	Description	H2O Degree Equipment to use
Positive Displacement	0.25 - 30	vertical or horizontal	150	5/8x3/4 - 2"	7-1/2" - 17"	6 to 35	cold 105	\$\$\$	This type of water meter is most often used in residential and small commercial applications. Displacement meters are commonly referred to as Positive Displacement, or "PD" meters. Two common types are oscillating piston meters and nutating disk meters. Either method relies on the water to physically displace the moving measuring element in direct proportion to the amount of water that passes through the meter. The piston or disk moves a magnet that drives the register.	M54190 and PS1001
Remanant magnetic field or electro magnetic	0.25 - 25	vertical or horizontal	150	5/8x3/4 - 2"	7-1/2" - 10 3/4"	3.3	cold 105	\$\$\$	This type of water meter is most often used in residential and small commercial applications. Often called magnetic water meters. Conductive water moving through the reduced bore flow tube induces a voltage proportional to the rate of flow. The meter then senses the voltage using electrodes located along the flow tube's sides.	M54190 and PS1001
Turbine	2 - 132	horizontal only	230	2-8"	7.9-13.8"	26-112	cold 105	\$\$\$	Turbine meters are less accurate than displacement and jet meters at low flow rates, but the measuring element does not occupy or severely restrict the entire path of flow. The flow direction is generally straight through the meter, allowing for higher flow rates and less pressure loss than displacement-type meters. They are the meter of choice for large commercial users, fire protection and as master meters for the water distribution system. Strainers are generally required to be installed in front of the meter to protect the measuring element from gravel or other debris that could enter the water distribution system.	M54190 and PS1001
Compound	1 - 132	horizontal only	150	2-8"	15-1/4 - 55 3/8"	32-460	cold 105	\$\$\$	A compound meter is used where high flow rates are necessary, but where at times there are also smaller rates of flow that need to be accurately measured. Compound meters have two measuring elements and a check valve to regulate flow between them. At high flow rates, water is normally diverted primarily or completely to the turbine part of the meter. When flow rates drop to where the turbine meter cannot measure accurately, a check valve closes to divert water to a smaller meter that can measure the lower flow rates accurately. The low flow meter is typically a multi-jet or PD meter. By adding the values registered by the high and low meters, the utility has a record of the total consumption of water flowing through the meter.	M54190 and PS1001