

# Know Your Flow: Leak Detection and Flow Monitoring Devices



Moisture detection sensor.  
Photo courtesy of Moen, Inc.

Household leaks can be a major source of water waste. They can cause utility bills to spike and sometimes even damage homes. Fortunately, leak detection and flow monitoring devices are available to help you identify leaks or alert you to irregular water use at home, and installing them can help reduce water waste and damage.

## Household Leaks Add Up Quickly

Leaks can be caused by a variety of factors; common household leaks include worn-out toilet flappers or malfunctioning fill valves, dripping faucets or showerheads, or a damaged irrigation system. If left unnoticed or unaddressed, a stuck fill valve in a toilet can waste 4,300 gallons of water per day and up to \$1,400 in water costs per month. A drip irrigation system malfunction that leaks at 1 gallon per minute can waste \$5,700 per year.



## Using Leak Detection or Flow Monitoring

Leak detection and flow monitoring devices can alert homeowners to unexpected dampness or water consumption patterns that may indicate a leak. They can be installed directly on or near a water fixture, on the main water line, or both. While some require professional installation, others are DIY. Monitoring your home's water use, addressing leaks promptly after receiving an alert, and maintaining these devices can help you save water and money. Leak detectors and monitors can also reduce insurance premiums, provide insights on water use, and protect local water supplies.

## Types of Detection and Monitoring Devices

*Point-of-use* devices are installed at the water fixture in leak-prone areas. They include moisture detection sensors, which use electrodes to sense when water is present, and in-line flow monitoring devices that send an alert if water is flowing continuously, indicating a leaky flapper or other fixture malfunction. *Point-of-entry* devices are usually installed on the main water line, allowing them to track the water use of an entire home or building. They can identify leaks anywhere downstream from where the device is installed.



Flow monitoring device. Photo courtesy of Moen, Inc.

While there are various technologies and types of devices to consider, it's important to understand a home's leak detection needs and compare different features and capabilities when selecting a device. To help consumers, WaterSense has developed *Know Your Flow and Curb Water Waste: A WaterSense Guide to Leak Detection and Flow Monitoring Devices*.

To access the guide and for more information on finding and fixing leaks, visit [www.epa.gov/watersense/leak-detection-and-flow-monitoring-devices](http://www.epa.gov/watersense/leak-detection-and-flow-monitoring-devices).