

GENERAL FEATURES

Leak Detection and Flow Monitoring Systems



Optional Water Efficiency Measure: May contribute to the 30 percent water efficiency requirement, depending on the chosen WaterSense® Approved Certification Method (WACM).



UNDERSTAND

- Leaks can be associated with toilet flappers, dripping faucets, irrigation lines, or many other sources.
- Leak detection and flow monitoring systems are devices used to identify potential leaks in water systems. If a leak is detected, these devices sound an alarm or send a notification to the homeowner, helping to limit water waste and potential water damage.
- Some insurance companies may provide premium discounts or credits for leak detection or flow monitoring systems, particularly those connected to automatic shutoff devices.
- These devices use a variety of technologies, have unique installation requirements, and offer different features and benefits. It's important to consider priorities for a particular house/project in selecting the appropriate leak detection device(s). See Potential Features of Leak Detection and Flow Monitoring Devices on the next page.



BUILD

- **UNDERSTAND** product limitations from the manufacturer. Some products do not work under certain conditions (e.g., under higher water pressure) or with certain models of meters.
- **SELECT** a device capable of monitoring for all water use in the home. For example, if a home has an irrigation system, select a device that can monitor for indoor and outdoor water use or leaks.
- **FOLLOW** the manufacturer's installation instructions. If installing an in-line device, ensure the plumbing design has enough pipe length to accommodate the device and that the leak detection system is installed in an area that is easily accessible.
- **ENSURE** the device is installed such that it will not interfere with fire sprinkler systems.
- **COMMUNICATE** sign-up or subscription requirements, if applicable, to the homeowner upon turnover of the home.

Make the Home System Ready

Not sure if the future homeowner will want a leak detection device installed? Some manufacturers of in-line systems offer pipe spacers to ensure the plumbing system is ready for easy installation of the device at a later time.



VERIFY

- **CONFIRM** the location and installation of leak detection devices.

**NOTE: Consult with the Home Certification Organization for specific verification protocols.*

Potential Features of Leak Detection and Flow Monitoring Devices

Monitoring Technology	<ul style="list-style-type: none"> Moisture-sensing devices use electrodes to detect water as it appears in a designated area and sound an alarm or activate a shut-off valve to notify homeowners when water is in a location that is not intended, such as on the floor near a water-using appliance or fixture. Flow monitoring devices record water flow or water pressure in pipes to detect irregularities. If irregular water use or pressure changes are detected, the device notifies the homeowner and/or activates an associated shut-off valve to prevent water waste or damage.
Installation Requirements	<ul style="list-style-type: none"> In-line devices, which typically come with shutoff capabilities, are more invasive and likely require a plumber to install within water piping. Moisture-detection or external flow monitoring devices are less complicated to install. Some systems integrate multiple technologies (e.g., separate devices for moisture detection and flow monitoring) in a mesh network to offer enhanced protection.
Area and Uses Being Monitored	<ul style="list-style-type: none"> Some moisture detection and flow monitoring devices are focused on a specific point of use, such as a toilet or water heater, while others are installed at the point of entry to a home or unit to monitor whole-house water consumption. Some devices are specifically intended for indoor or outdoor water use, while others can monitor water use in both areas.
Intervention Abilities	<ul style="list-style-type: none"> Some devices offer integrated shutoff capabilities or otherwise activate a water shutoff valve. Devices without shutoff abilities typically sound an alarm or send a notification.

