Detection system prevents water damage to homes

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How it works — A sensor detects water, left, and a connected transmitter sends a signal to a control panel, right, that shuts off water supply to the dwelling and notifies the owner by phone or email.

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Where they go — This shows where sensors could be placed in a typical home.



Eric Sampson

Having a water pipe burst, or having even a small leak go undetected for many hours, can have a devastating effect on your home. Not only will you sustain water damage to your floors, walls and furnishings, you could also have mold or other noxious growths develop if a cleanup isn't as complete as it should be.

And then you have to file a claim with your insurance company.

"Insurance rates go up as water damage claims go up," said Eric Sampson, with a company called H2O Protection. "The average claim is \$17,000."

Obviously, preventing water damage from a leak is much more preferable than having reclamation work afterward. According to Sampson, 80 percent of insurance claims in Florida are water damage, unrelated to natural disasters or storms. And that's where companies like H2O Protection can help.

H2O Protection sells systems that can nearly instantaneously shut off water supply to a home if a leak is detected, thereby minimizing or preventing water damage.

H2O Protection's system is called PipeBurst Pro, manufactured by GreenField Direct, a 40-year-old

Greenwood, Nebraska-based valve-maker. The company started the Pipe-Burst Pro line in 2009, Sampson said.

Here's how the system works: Sensors are placed in locations where wayward water could become a problem, such as sinks, toilets and washing machines. Each sensor is wired to a nearby transmitter. If the sensor detects water when there shouldn't be any, the transmitter sends a wireless signal to a control panel. That panel shuts off a valve on the line supplying water to the home and notifies the homeowner by phone or email that there's a leak and where it is.

The process — from detection to shutdown — takes less than three seconds, Sampson said.

The water cannot be turned back on until the leak is repaired and the sensor indicates the site is dry. And since leaks are isolated, repairs can generally be done in one day.

The PipeBurst Pro systems are not the only water-detection devices on the market, Sampson said, but they are the only ones with valves that are submersible or can be installed in boxes in the ground.

"We're not the cheapest product available, but we're highly competitive with others on the market," he said. "We're kind of a premium product."

The PipeBurst Pro systems are customized for each home. Protecting a typical home would require 10 sensors (plus one or two "pigtails" from a sensor for a dishwasher under a kitchen sink or a water heater near a washing machine, for instance), a shut-off valve for the main supply line, and a meter that monitors consumption and shuts off the water supply if an abnormal reading occurs.

That system would cost about \$3,000, Sampson said, not counting hiring a plumber to install the shut-off valve and possibly an electrician to wire in the control panel.

PipeBurst Pro systems also can be used in commercial buildings and multifamily homes. All systems can be retrofitted into existing structures or included during initial construction.

"It's much easier to include it in new construction than to retrofit," Sampson said.

Sampson said many homeowner insurance companies offer discounts to customers who have PipeBurst Pro installed, which could help pay for the systems.

According to Sampson, so far one Volusia County homebuilder — DeBary-based Empire Custom Builders — is offering Pipe-

Burst Pro as an option on its new homes.

For more information, visit www.H2OProtection.com.

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