

A hands-free, germ-free future

A look into the offerings of residential touchless faucets.



Kohler's Sensate touchless kitchen faucet features a sensor located underneath the spout and requires a deliberate motion to activate it.

Itchen and bathroom faucets and handles are two of the germiest surfaces in the home — even more so than the toilet seat. A survey of 35 U.S. homes, conducted by the Hygiene Council, shows the kitchen faucet handle has 13,227 bacteria per sq. in. and the bathroom faucet handle has 6,267 bacteria per sq. in., whereas the toilet seat has 295 bacteria per sq. in. In an effort to reduce the spread of germs, touchless faucets were created.

The first automatic faucets were seen in airport restrooms in the 1950s. These faucets then slowly moved to commercial buildings. According to many plumbing manufacturers, a touchless faucet — also known as hands-free faucet, electronic faucet, motion-sensing faucet or infrared faucet — can inhibit the spread of germs and help save up to 70% of water. With more states adapting low-flow codes, the initiative to reduce the amount of wasted water is becoming more important.

Most recently, hands-free faucets have been moving into residential spaces. "Consumers got used to having touchless faucets in commercial settings, so a transition into homes only seemed natural," says **Tom Tylicki**, Moen's senior product manager for kitchen.

The touchless function can reduce germ spread, especially when handling raw foods. Also, not touching the faucet or handles results in less of a mess, which means less cleaning.

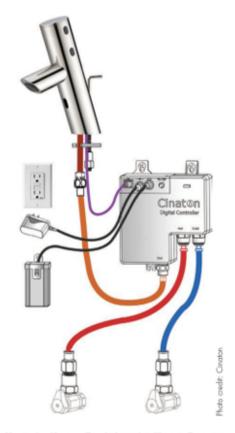
"Busier lifestyles demand more convenience," notes Danyel Tiefenbacher, brand manager at Pfister. "Faucets with touch-free technology have many advantages over standard and touch-operated faucets. These new faucets help you speed through food prep, dishwashing and cleanup."

Touchless faucets are great for kids. "I have a five-year old and she thinks it's great because she can stick a glass under the faucet and get water without having to turn the handle, which she can't reach," Tylicki says. "It allows you to be efficient and perform tasks with greater ease."

Location, location

Typically touchless faucets are controlled by a single electronic sensor to turn the water on and off at a preset temperature. This could present some challenges for residential applications:

 Most applications in the home require various temperature adjustments.



Cinaton's iSense Touch-free Intelligent Faucets require an electrical outlet to connect to the control box. Four backup AA batteries for the AC adapter are included with the faucet kit.



Delta's Addison collection with hands-free Touch20.xt Technology features a 4-in. sensing field around the entire faucet and touch activation.

more in the kitchen than in the bathroom, believing the advantages are little more upfront and easier to understand in the kitchen. For example, Moen only offers touchless kitchen faucets.

"You can't just put an IR sensor on a lavatory faucet and expect people to love it," Tylicki notes. "It will take thoughtful design and making sure you are integrating it in the right way. You have to make sure the advantages/features you are giving to the consumers are going to be worth it. However, I can see growth for this in the future."

Lou Rohl, CEO and managing partner of Rohl, agrees the use of residential touchless faucets in the bathroom is happening, but at

a slower rate. "Two things will force this to become a more acceptable design element," he says. "One, more and more designers will look at the impact of their designs, specifically in the bathroom, and begin incorporating universal design elements. Two, more and more people 'aging in place' will force the need for hands-free devices."

No hands, no handles

Introduced at KBIS 2011 in Las Vegas, Cinaton's faucets, for both the kitchen and bathroom, were well-received. "Our kitchen and bathroom faucets have the same function designs — completely touchless with no handle," says **Sherry Ling**, sales manager for Cinaton.

The company's iSense technology allows the user to wave his hand over five proximity sensors that perform up to 13 combined functions for full water temperature and flow control, and to save the user's favorite settings.

With no handle, there are two ways to turn the faucet on and off. The first is the Easy Sensor (sensor C) activation zone at the base. The water will turn on when a user's hands or an object is placed up to 8-in. in front of the sensor. It will turn off when the object is away from the activation zone.

The second is the two sensors on the right side of the faucet (sensors A and B). By placing a hand over sensors A and B, the water will turn on and continue to run until it is turned off again. A five-min. safety shutoff feature ensures water will not run continuously if accidently left unattended.

The faucets also feature a pause function.

Rohl also features a completely hands-free faucet for the bathroom. It utilizes a presence sensor which ensures the faucet isn't inadvertently turning on when someone walks by it or if someone happens to be placing something in the sink — which has been noted as a common concern among consumers.

Hands-free faucet technology will continue to evolve and will likely be offered on more and more items through more and more manufacturers. It can already be seen spreading to soap dispensers and beverage faucets. "We currently have four kitchen collections with MotionSense. While I can't speculate on what we may launch in the future, I expect technology to continue to evolve throughout the home," Tylicki adds. "I don't imagine it going away."