



# Application Alley

## Smart World Reed Switch & Magnetic Products

*Smart Homes - Security, Appliances, HVAC, Control*

### Smart Products for Smart Homes

Homes are getting smarter, and this means the components that allow the processes within products need to be smarter as well. In today's world, homes are being stocked full of items that are automated, innovative, and controlled remotely.



Think of walking into the door, through the entrance into the kitchen, and simply getting a beverage. Along that journey, the possibility you cross paths with some sort of smart technology is inevitable. Our refrigerators tell time, temperature, water level, recipes, and connect virtually. Our washers and dryers are more water and energy efficient. From the door and window security, to the lighting and HVAC controls, you can enable from your mobile device to smart meters connected to control applications are items we can adjust real-time.

### Home Safety and Security

Magnetic reed switches, reed relays, reed switch based proximity sensors, chokes and power

transformers have had broad applications in homes for several decades. From test switches in smoke detectors to door and window position monitoring in home security systems, these switches and sensors are applied worldwide by the hundreds of millions every year. Reed Relays and smaller power transformers are widely used in home fire and security system control panels.



Because fire, security systems, and now home automation systems are sometimes required to operate on backup (battery) power, it is very important that these system designs use devices that are energy efficient. Reed Switches and Reed Switch based proximity sensors use no power in the off-state and minimal power in the "on" (switch closed) condition. Some reed relays are even designed to change state when a single short logic level pulse is applied to the relay coil and will hold that state until a second short pulse is applied. Low use of power and millions of trouble free operations make these devices ideal choices for home automation systems.



Historic home fire and security systems are electronic systems consisting of sensors and control panels reporting to private central stations, and/or directly to fire and police services when an event occurs that triggers one or more of the system sensors indicating a fire or intrusion condition. With the advent of smart phone and internet addressable control panels, these systems can now be bundled with newer features to become total home automation systems.

### Home Control and Smart Features

#### Efficiency

When you left your home this morning did you remember to close the garage door? Would you like to check and see if it is closed and would you like to close the garage door if it was left open? Want to save cost on your gas/electric bill? Why not reduce the thermostat remotely while at work during the day so the furnace isn't running constantly during those winter months, or control your air conditioning during those hot summer days as well. These are just a couple of examples of what you can now do using your smart phone or office PC to connect to your home automation system. Your home automation system can now let you know instantly by email or text message that you have a high water condition in your basement. It can also let you know that your system senses water flow by monitoring the main water feed into your home.

The hardware to allow you to know that your garage door is closed can be something as simple as a reed switch driven proximity sensor properly located at your garage door. The flood condition detection sensor can be as simple as a small reed switch based

float sensor located in your sump. In addition, a water flow condition in your fresh water plumbing system can be detected with an in-line water flow sensor.



#### The power of Standex Electronics

The basic building block for a "Smart Home" is an internal control system within the home that is internet addressable and is capable of interfacing with all of the existing major home systems (HVAC, electrical, fire, and security systems). In older homes some of these existing systems will need to be upgraded so they are addressable or will need to be replaced.



This infrastructure will allow for most any wired or wireless appropriate sensor to be attached and monitor the condition of a specific home attribute as required. Other devices may be required to take action to change the condition with the sensor used reporting back the appropriate change of state. Standex-Meder Electronics provides literally hundreds of different sensors, sensor components, RF antennas, chokes, and power transformers widely used in residential automation systems including - fire, security, lighting, and HVAC systems as well in the many home appliances that may now be integrated into intelligent home applications.

### Smart Home Applications

- Door and Window position sensing
- Garage Door Position Sensing and opener operation
- Glass Break sensing
- Smoke Detector Test Switches
- Control Panel Relays
- Control Panel Transformers
- RF antennas for wireless sensors
- Flood Sensors
- Water Flow Sensors
- Fluid Level Sensor
- Position Sensors for water shutoff valves
- Current transformers for load sensing

- Interposing relays for main load connect and disconnect
- Interposing relays for lighting loads connect and disconnect
- Tamper Switches
- Lid Switches
- Lighting Control, external and internal
- Window Shade control
- Door Locks
- Ventilation Control
- Temperature control

At Standex Electronics we are constantly in tune with the market and trends to where products are going in the way of technology needed to fuel the processes we influence. As technology innovates forward, we drive our customer's efforts in the same direction with reed sensors, reed switches, reed relays, level sensors, and magnetics that deliver to these ever changing needs. Equipping a house with items that make it a "Smart Home" entails the engineering, design, tooling, testing, and other capabilities to provide the support of remote, automated, and forward thinking processes our customer's products require.

Give us a [hello@standexelectronics.com](mailto:hello@standexelectronics.com) today to discover how we can partner to deliver smart solutions for your project!



## About Standex Electronics

Standex Electronics is a worldwide market leader in the design, engineering, and manufacture of standard and custom electro-magnetic components, including magnetics products and reed switch-based solutions.

Our magnetics offerings include planar, current sense, and conventional low- and high-frequency transformers and inductors. Reed switch-based solutions include Meder, Kent, and KOFU brand reed switches, as well as a complete portfolio of reed relays, and a comprehensive array of fluid level, proximity, motion, water flow, HVAC condensate, hydraulic pressure differential, capacitive, conductive and inductive sensors.

We offer engineered product solutions for a broad range of product applications in the transportation, automotive, medical, test and measurement, military and aerospace, aviation, HVAC, appliance, security and safety, and general power and industrial markets.

Standex Electronics has a commitment to absolute customer satisfaction through a partner, solve, and deliver approach. With a global organization that offers sales support, engineering capabilities, and technical resources worldwide – we implement customer driven innovation that puts the customer first.

For more information on Standex Electronics, visit us on the web at [standexelectronics.com](http://standexelectronics.com).

### Contact Information:

#### Standex Electronics

World Headquarters  
4538 Camberwell Road  
Cincinnati, OH 45209 USA

#### Standex Americas (OH)

+1.866.STANDEX (+1.866.782.6339)  
[info@standexelectronics.com](mailto:info@standexelectronics.com)

#### Standex Electronics Asia (Shanghai)

+86.21.37606000  
[salesasia@standexelectronics.com](mailto:salesasia@standexelectronics.com)

#### Standex Electronics Europe (Germany)

+49.7731.8399.0  
[info@standexelectronics.com](mailto:info@standexelectronics.com)

#### Standex Electronics India (Chennai)

+91.98867.57533  
[kkasaragod@standexelectronics.com](mailto:kkasaragod@standexelectronics.com)

#### Standex Electronics Japan (Kofu)

+81.42.698.0026  
[sej-sales@standex.co.jp](mailto:sej-sales@standex.co.jp)

