

The Front Burner

A Quarterly Newsletter Highlighting Product & Industry News

[A message from Carrier, our parent company, on our response to COVID-19](#)

Internet of Things (IoT) in HVACR

In January, AHRI held an “IoT in HVACR Summit” to address topics such as connected equipment and cybersecurity. The summit also addressed approaches for balancing convenience, security and privacy.



There were discussions of smart buildings and energy efficiency using smart technology. The idea is that equipment and systems within a building can communicate and optimize operations and whole-building performance. These systems also interact with occupants and allow actionable information to be addressed in real time. Entire buildings can now work together as one integrated system for better efficiency.

Looking at cybersecurity, connectivity threats have many paths to HVACR equipment such as: Standard Ethernet, Bluetooth®, Wi-Fi®, internet gateways, routers and communications protocols like BACNet™ and RS485. Because HVACR products do not have their own standards, industry leaders recommend adopting UL 2900-1, IEC 62443, BSIMM and NIST cybersecurity framework as an initial step. The speakers at the summit advised manufacturers to stay vigilant in order to protect personal information stored in our systems, stop unauthorized access to our services and block other systems from utilizing our equipment to gain access to other connected systems. Cybersecurity is a moving target and manufacturers should pay close attention to potential vulnerabilities.

A variety of new industry rules were identified that require attention. The Northwest Energy Efficiency Alliance recommends heat pump water heaters have a communication port compliant with CTA-2045. Washington State is requiring electric

water heaters to be equipped with a CTA-2045-A communications interface. The California Energy Commission is setting standards for appliances to work with the electrical grid for improved reliability while taking NIST cybersecurity protocols into consideration. These regulations need to be taken into consideration as we build better and smarter appliances for our customers.

24 Volt AC Versatility



In North America, many appliances use 24 VAC as their low voltage standard. For this reason, Fenwal Controls has a complete line of 24 VAC gas ignition controls that can be used in a variety of industries. From commercial cooking and laundry, to pool heating and HVAC, we have a control to meet your needs.

- Direct Spark Ignition
- Direct Spark Ignition with inducer blower support
- Dual Direct Spark Ignition
- Intermittent Pilot Ignition
- Hot Surface Ignition
- Hot Surface Ignition with inducer blower support
- Proven Hot Surface Ignition
- Platform Ignition Module - for modulation, hydronics and other applications

Fenwal Controls offers over 250 variations of these controls available for quick purchase. If an existing platform does not meet your needs, variations can be developed and agency listed in less than 6 months.

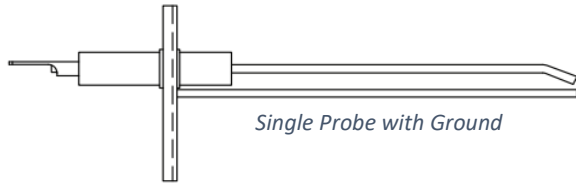
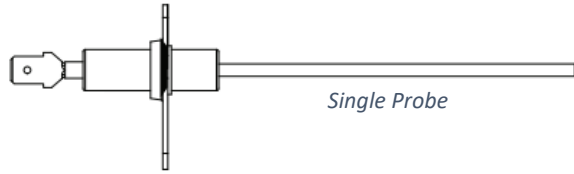
[Click to find out more...](#)

Spark Electrodes and Flame Sensors

We complement our gas ignition controls with electrodes rated to 2,550°F (1,400°C). Utilizing glazed alumina ceramic insulators and high temperature Fe/Cr/Al wire, our electrodes are designed for years of trouble-free performance.

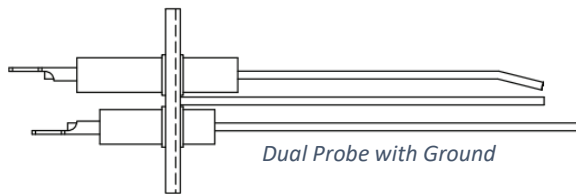
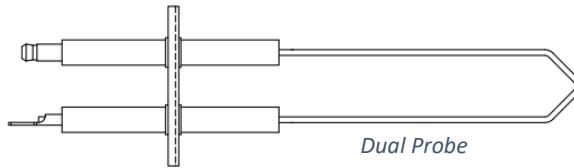
Electrode configurations include:

Single Probe – Use as either a spark electrode or flame sense rod



Single Probe with Ground – Typically used as a spark electrode with included chassis ground for complete circuit on a single bracket

Dual Probe – Use as either a spark electrode with isolated ground or as a combination spark electrode and flame sensor rod on a single bracket



Dual Probe with Ground – Provides a spark electrode with included chassis ground for complete circuit and a flame sense rod on a single bracket

We understand that electrode designs are unique to each application and can manufacture to your specifications. Please contact your Fenwal Controls sales representative to learn more about what we can do for you.

[Learn more at these products at...](#)

Questions with your control systems?
Contact our Sales Managers: [Bill Sager](#) or [Mark Tully](#)
Or find a representative near you at fenwalcontrols.com

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