

Series 2000 Pilots

Reliable Ignitors and Monitors



Selas's Red-Ray Series 2000 pilot flame ignitors and monitors incorporate the latest technology for 100% reliability in the light off and monitoring of the Metal Refractory (MR) and Apollo Ray (AR) series surface combustion burners. The reliability comes from the construction of the ignitors and monitors as well as the design of the system.

The series 2000-MPQ-1 pilot monitor bracket assembly is fastened directly to the burner farthest from the point of ignition. It includes both a Kanthal flame electrode and an Inconel pilot tip.

As the flame propagates to the last burner in the array, it lights the pilot monitor. A DC signal supplied by the control panel passes through the high temperature monitor wire to the end of the flame electrode.

The circuit is completed through flame rectification



to the burner body and ground. The flame rectification is provided by both the pilot tip and the surface flame of the burner, so flame safety is NFPA 86 code compliant. As with the ignitor, the pilot tip is fed directly with the air/gas mixture through a tap into the manifold.

Our method of providing the air/gas mixture to the pilot burners eliminates the need for a stand alone pilot burner and its air and gas train components. The pilot flame can be adjusted using a limiting orifice in a gas cock designed for high temperature applications.



Poor flames and/or placement of the flame rod will result in weak signals leading to ignition or monitoring problems. The tube and gas cock are available in brass and also in stainless steel for food applications.

Turbulent air at the inlet of the oven can cool the MPQ-1 and IPQ-1 flame rods resulting in signal loss. Air flow should be taken into account in the oven design phase or the IPQ-1 or MPQ-1 will need to be shielded.

The end bracket consists of 14 gauge 304 SS. It is fastened with screws on the Metal Refractory (MR) series burners and welded on the Apollo Ray (AR) series burners.

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Mounting can either be on the ends or sides of the first and last burner sections. This provides options for the location of the IPQ and MPQ within the oven.

Backed by 70 years of industry experience and the latest in radiant energy technology, the Selas engineering department will design and provide a complete system to meet any specification. Choose from a variety of infrared burners, manifolds and control equipment.

