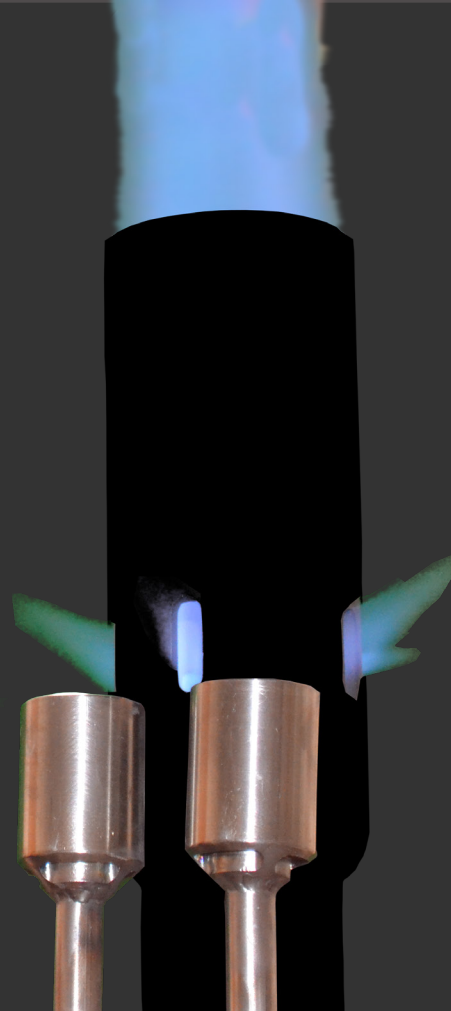# CLEARSIGN EYE™ PILOT SENSOR

Reliable Pilot Monitoring

Current pilot flame monitoring technologies frequently suffer from reliability issues due to being immersed in the flame or having difficulty differentiating the pilot from the main flame. This can result in unplanned interruptions, lost production, and costly maintenance programs.

ClearSign Technologies has developed a new method of flame detection for industrial combustion applications. Our initial product is the ClearSign Eye Pilot Sensor which provides reliable pilot flame sensing with significantly improved reliability and longevity.

The sensor is designed for easy installation and low maintenance. It can easily replace existing ionization flame monitoring technology without extensive modification to the existing burner.

The sensor consists of two sensing electrodes situated outside the periphery of a flame. A signal is sent from the sending probe through the ionization field of the flame to the receiving probe. That signal is then transmitted to the control module. The control module easily connects to any industry standard Burner Management System (BMS).

Features & Benefits

No Direct Flame Contact
Eliminates known failure mechanism

Intelligent Design
Easy to install and maintain

Stainless Steel Components
Selected for maximum longetivity

Patented Technology
Supported by 5 years of R&D & testing

Smart Electronics
Easily integrates with existing burner management systems

PRODUCT HIGHLIGHTS

ClearSign Eye RetroFit Pilot Sensor

The ClearSign Eye™ RetroFit Pilot Sensor is designed to directly replace flame rods on installed burners without requiring any modification to the existing mounting plate. **The sensor assembly is installed using the existing flame rod mounting plate hole.**

ClearSign Eye™ INPlace Pilot Sensor

The ClearSign Eye™ INPlace Pilot Sensor is designed to be installed with a custom or modified mounting plate allowing for the sensor to be removed while leaving the pilot in place.

Protective Debris Shield

The electrode shield (Fig. 1) protects the electrodes from radiant heat while also preventing physical damage or debris accumulation by allowing falling material to pass through the relief holes under the sensor head.

Fig. 1

Custom Bracket

A custom stainless-steel bracket (Fig. 2) provides stability and adjustment for the ClearSign Eye™ Pilot Sensor ensuring alignment with the pilot weep hole for reliable signal detection in the most challenging environments.

Smart Electronics

The control module processes the signal it receives from the system. The control module transmits the signal to the customer Burner Management System. The control module features a LED signal intensity meter, local flame presence indication, customizable on/off delay settings and industry standard output signals.

Fig. 2
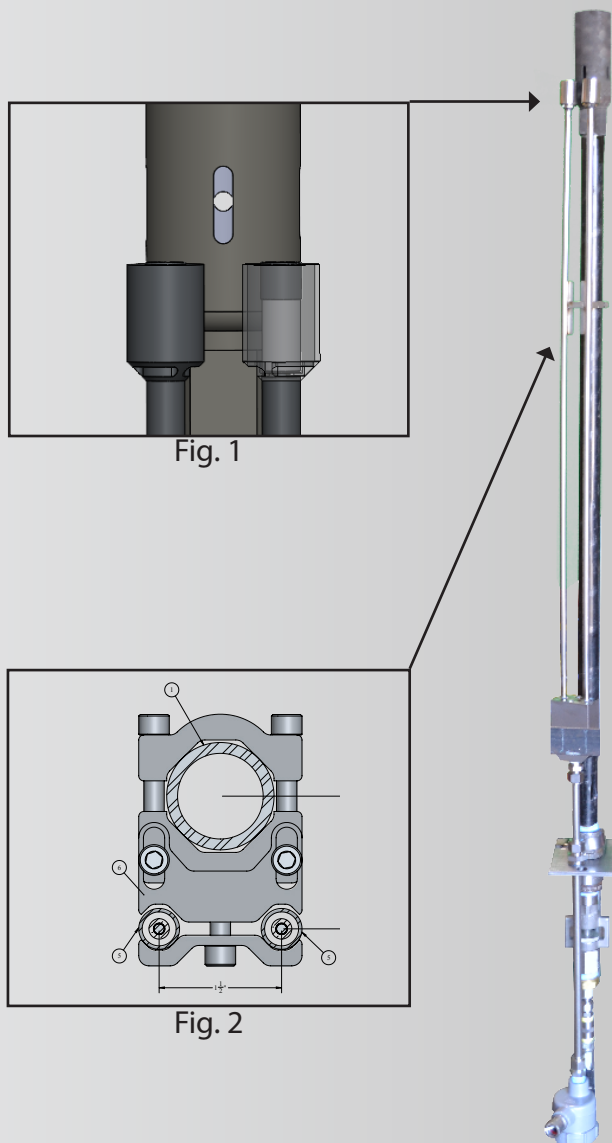
To watch a video demonstration of the ClearSign Eye Pilot Sensor, open your camera and hold it over the QR code

clearsign.com | **206.673.4848**