



# SunSpot II Pilot Flame Detector

The Fossil Power Systems Inc. (FPS) SunSpot II is a compact solid-state instrument designed to verify the presence of flame in ignitors. This is accomplished by measuring the ionization of gases caused by the combustion process. A probe resides in the flame envelope, and the ionization is detected by passing a small electrical current through the flame to ground.

## THE SUNSPOT IS DESIGNED FOR TWO APPLICATIONS

- The replacement for the "Delta-P" flame detector used in ABB-Combustion Engineering (CE) ignitors. This configuration consists of the SunSpot probe which fits into the existing high pressure tap pipe and the SunSpot electronics module, which is mounted in a convenient location.
- Integral to an FPS ignitor, where a SunSpot flame rod is installed in the ignitor and the electronics module is mounted in a convenient location.

The SunSpot is reliable, requires virtually no maintenance and is very economical. It is supplied as an assembly, which includes the plug-in electronics module and a relay socket. This assembly can be mounted in either a manufacturer supplied NEMA 4X enclosure, for burner front mounting, or inside a control cabinet, and wired into the customer's safety control system. Replacing the module takes only a matter of seconds.

The electronics module has three light emitting diodes (LED) that show the status of the detector. These are POWER, IONIZATION and FLAME. The FLAME light illuminates when flame is proven. Two Form-C contacts are provided for system interlocking and flame indication.

Installation of the SunSpot detection system as a retrofit on an ABB/CE ignitor is straightforward and can be done while the boiler is in service.

The SunSpot module may be mounted in the ignitor cabinet in the area previously taken by the DP Switch. The two Form-C contacts can be easily wired to duplicate the action of this switch.

## SPECIFICATIONS

### ENVIRONMENT

- 0°C to 70°C

### ELECTRICAL

- Supply 100-130 VAC or 200-240 VAC
  - Single Phase
  - 47 to 63 Hz
  - 1/4 AMP
- Flame Contact Output
  - Two Form-C Relay Contacts
  - 5 AMPS @ 30 VDC or 120 VAC (resistive)
  - 3 AMPS @ 120 VAC (inductive)



SUNSPOT II PILOT FLAME DETECTOR MODULE



SUNSPOT II FLAME DETECTOR RETROFIT KIT

Controlling  
the **power**  
of **steam**



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