Uvisor™ SF810 Series Flame Scanner - Pyro
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When Safety and Efficiency combine
Combustion Instrumentation
SF810-PYRO

The flame scanner is the closest eye to the local combustion process in the furnace. Live analysis of the basic flame parameters allows the flame scanner to assess the individual burner safety operation preventing the formation of hazardous concentrations of combustibles. On top of this basic and primary feature, ABB’s latest Uvisor™ SF810-PYR series flame scanner, offer the “Live Flame Temperature” reading, a qualitative information strictly related to the burner combustion efficiency.

- In-built feature of the existing Uvisor SF810/SF810i
- Non-intrusive, single point measurement for safety flame assessment and live temperature measurement
- Applicable to pulverized fuels, coal, lignite and biomass flames. (Ongoing test for fuel gas flames)
- On-line local and remote temperature reading
- Compatible with Flame Explorer monitoring and configuration tool
- Compatible with Profibus DTM
- Technical data:
  - Enclosure: Standard SF810 series
  - Termination board: Standard SF810 / SF810INT series
  - Signal processor: Standard SF810INT / FAU810 series
  - Sensor board: New dual colors sensor
  - External add-ons: Optical “Iris” (diaphragm)
  - Temperature range: 600°C (1112°F) to 1800°C (3272°F)
  - Accuracy: <1% absolute
Benefits:

- The two-color, dual wave-length of the SF810-PYR detector allows for the accurate measurement of temperatures in processes that may become obscured by smoke, dust or particulate. All units are factory calibrated to an industry standard heat source and shipped with system specific calibration tables.

- Flame temperature is directly related to combustion parameters such as air/fuel ratio and NOx emissions.

- By on-line flame temperature monitoring, the combustion quality can be inferred (complete/partial/incomplete combustion) leading to advanced and more efficient boiler combustion control strategy.

- Flame temperature collected at each individual burner can address furnace imbalance diagnostic as well as mill / classifier performance issues.