

ABB launches new Uvisor™ SF810i and FAU810 Flame Scanner Systems

An evolutionary response to the growing demands for functional reliability, lower operating costs and environmental compatibility

Madrid, 26 June 2007. ABB has introduced a new line of flame scanners as part of the Uvisor™ product family, featuring high reliability, advanced analysis capabilities, real-time communication and complete compatibility with existing installations.

The new ABB flame scanners are ideal for power plants as well as process industries, including green-field plants or upgrading existing sites. The latest generation of flame scanners are applicable to burners of practically all types of liquid, gaseous, fossil, synfuels, or atomized fuels or combinations thereof. Designed to measure the quality of flame through the Combustion Index™, as well as mandatory flame detection, the new Uvisor™ flame scanner systems ensure constant monitoring of the combustion system's efficiency. They effectively offer support towards reducing plant operational costs as well as their resulting (CO) carbon monoxide and (NOx) nitric oxide emissions.

Patented ABB technology is utilized in the Combustion Index™ enabling the detection of possible fuel degradation, whether monitoring a single burner or the boiler as a whole. Used in conjunction with the innovative flame sensor technology the entire emissions spectrum of UV (ultraviolet), VL (visible light), IR (Infrared) can be utilized to ensure that the combustion process is operating efficiently. The signals from the ABB flame scanner systems are transported via two Profibus DP-V1 (or Modbus) redundant interfaces ensuring fast data transmission to the monitoring and supervision system, DCS or SCADA, in real time (up to 12 Mbit/sec), for the required corrective actions. A highly reliable “fail-to-safe” system constantly controls the entire system, from sensor to relay output.

LOS (Line of Sight) or FOC (High temperature Fibre Optic Cable) configurations are available for both lines. All units planned for mounting onto burners are designed and built to withstand the harshest conditions for years and require a minimum of maintenance. Casings are explosion-proof (ATEX II - 2GD T6) with an IP66 degree of environmental isolation. All the Uvisor™ family products have been designed to conform to the most severe international standards.



The new Uvisor™ products are available in two basic architectures: integrated and standard.

The Uvisor™ SF810i system (= integrated) is designed on the basis of the "all in one" concept: a small cylindrical casing, combining the features of advanced resistance to hostile environment (explosion-proof, resistance to humidity, vibrations and high temperatures) integrated with all the electronic parts (scanners, analysis/processing, communication units) for implementing both standard and innovative functions. This solution, reducing and in some cases writing off the installation costs for ancillary and correlated components, is particularly suited both for boilers in power generation as well as those used in industrial process plants.

The Uvisor™ SF810 + FAU810 system on the other hand consists of an SF810 detection unit installed on the burner and a remote FAU810 analysis and communication unit. Simple to install on DIN rails, easy to configure and flexible, the FAU810 unit can be connected up to two scanners along separate with segregated channels, thus cutting down on installation and commissioning costs.

What is more, the existing cabinets and wiring can be reused, reducing the costs of retrofitting existing flame scanner systems to merely replacing faulty or inefficient components.

Products of both lines offer the same functionality, they interface with ABB advanced solutions for monitoring the quality of flame (Flame Explorer™) and can be installed in plants already existing without requiring any mechanical changes (FAU810 offers drop in compatible). Full compatibility with existing installations is moreover assured: the new family being an evolution of those coming before them, protecting our end-users' investments and offering various functional retrofit and upgrading solutions for installations.

With 40 years of flame scanner experience, ABB has approximately 40,000 flame scanner systems installed in over 1,800 plants worldwide and is one of the major suppliers in power generation: its market share currently exceeds 40 percent in China.

ABB (www.abb.com) is a leader in power and automation technologies that enable utility and industry customers to improve performance while lowering environmental impact. The ABB Group of companies operates in around 100 countries and employs about 109,000 people.

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