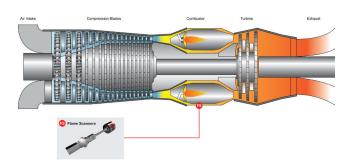
# VFS-2000 Turbine Sensor



# GAS TURBINE APPLICATIONS RELIABLE FLAME DETECTION FOR GAS TURBINES



Ultraviolet (UV) Flame Sensors for turbine combustor with high-temperature fiber optics.

## TURBINE SENSOR VFS-2000

Fully sealed, high temperature, high pressure, sapphire window at the combustor with high temperature fiber optics for precise flame signal transmission. Remote electronics & solid-state ultraviolet (UV) sensitivity. Fireye turbine combustor

flame sensor provides a 4 20 mA flame signal output. Response time to Flame On or Flame Off is 175ms (typical < 75ms). Sensor upgrades tube style



and other turbine flame sensors with a reliable high temperature rated installation at the turbines

#### Features

- Solid-state design, no tubes or shutters
- Detects hydrogen, natural gas or fuel oil turbine
- Silicon carbide UV spectrum sensor with fast response time
- Installs with 3/4 inch NPT standard gas turbine pipe
- Compact design, removable without turbine
  interruptions

#### Specifications

- VFS-2000 Ultraviolet Sensor: 200nm-400nm
- Detection Principle: Solid-state
- Silicon Carbide Diode Sensor
- Supply Voltage: 18-30 VDC
- Output: 4-20mA DC, current loop
- Operating Temperature: 32°F/0°C (Min.), 284°F/140°C (Max. Cool End), 618°F/325°C (Max. Hot End)
- Vibration: Per IEC 60068-2-64, Stationary Installation, Category 3
- FCC Part 15, Subpart B, Class A (30MHZ to 1GHz)
- Housing Material: Stainless Steel 18-8 (304)
- ATEX: ITS-I ATEX38197X (II 3G Ex ec IIC T3 Gc)
- IECEx: IECEx ETL 23.0046X (II 3G Ex ec IIC T3 Gc)
- Class I, Div 2 (North America) Groups A, B, C & D
- UL, CE, UKCA, CSA, SIL3

### INSIGHT® SCANNERS 95DS / 95DSS3 / 95IRS4 / 95UVS4

Alternate options to Fireye VFS-2000 Turbine Sensor utilizing Fireye's InSight flame scanner range complete with fiber optics.

#### Features

- Integrated design includes internal flame relay
  and 4-20mA output
- Keypad/display for programming
- Remote communications and file select capabilities
- Programmable flame flicker frequency, sensor gain, pull-in and drop-out set points, and FFRT
- 95DSS3 infrared transmitter option

#### Specifications

- 95IR infrared sensor: 700 to 1700 nm
- 95UV ultraviolet sensor: 295 to 320 nm
- 95DS dual sensor: 295 to 320 & 700 to 1700 nm
- Supply voltage: 24 VDC
- Housing: NEMA 4X, Class I,
  Division 2, Groups A, B, C & D
- Ex d IIC T6 ATEX
- SIL3

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