Reuter-Stokes
a Baker Hughes business

Flame Tracker Dry 325 Increased Low Gain (ILG)

Extra sensitivity to low intensity light

The ILG sensor helps detect dim flames caused by obstructions, condensation, and deposits on the sensor window.

No water cooling needed!

Hot end operates up to 325°C

Our Reuter Stokes Flame Tracker Dry 325 senses the ultraviolet (UV) light produced by a flame and outputs a signal proportional to the ultraviolet intensity. This rugged design reduces maintenance by moving sensitive electronics away from the heat, thereby eliminating the need for water cooling. The Silicon Carbide (SiC) optical photodiode is designed for use with multiple fuels, low NOx combustors and steam injection. The Flame Tracker Dry 325 is applicable to a variety of gas turbine models.

High sensitivity, fast response

- ILG is even more sensitive than standard gain models
- Proven SiC technology has high sensitivity to longer UV wavelengths and is not susceptible to black body radiation
- Rapid response time of less than 175 milliseconds. Similar products may take as long as 1.5 seconds to respond, which creates a potentially undesirable situation
- Analog output with a wide dynamic range

Reduced maintenance

- No water cooling lines, which reduces sensor replacement time and eliminates maintenance of water cooling systems
- Mineral insulated cable eliminates the need for electrical conduit
- Full operation allowed during the water wash cycle
- Ease of installation and removal saves time during outages

Reliable, low voltage operation

- 500 million hours of fired operation
- High reliability. Ruggedized construction, high temperature materials, rigorous validation
- Industry standard output signal (4-20 mA)
- Fuel flexibility—operates reliably with many fuels, with or without steam injection
- Improved safety through low voltage operation. Eliminates the 350 VDC supply voltage and explosion-proof conduit required by some sensors
- Ruggedized mineral insulated cable
- Built with the same proven sensing technology that has worked in the Flame Tracker for more than 25 years

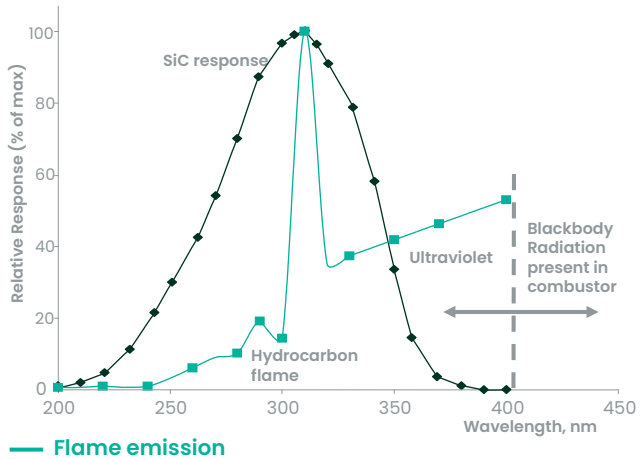
Customized conversion kits

Designed to replace existing sensors, the Flame Tracker Dry 325 is applicable to a variety of gas turbine models. In addition, it is North America, ATEX, and IECEx certified.

Specifications

Sensor responsivity and hydrocarbon flame emission spectrum

Spectral response

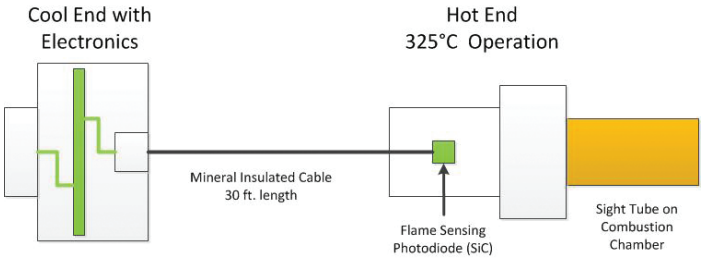


Flame emission

Ft Lite sensor response

Peak sensitivity closely matches the key flame peak at 310 nm.

System configuration



Operating

Power requirements	24 VDC nominal, 12-30 VDC @ 100 mA
Output	4-20 mA (a module to convert output to other controller inputs is available)
Response time	< 175 milliseconds
Operating Temperature range	Cool End: -51°C to 140°C (-60°F to 284°F) Hot End: -51°C to 325°C (-60°F to 617°F)
Process pressure	To 400 psig (2.8 MPa)

Material

Body mount	AISI 316 Stainless Steel
Housing	AISI 304 Stainless Steel
Mechanical interface	3/4" NPT female
Sensing element	Silicon Carbide (SiC) photodiode

Part numbers

FTD 325 ILG Sensors	
Reuter-Stokes part number	**Description**
RS-FS-9010-03-25X	30 foot cable (9.1 m), NA Class I Division 1, ATEX Zone 1
RS-FS-9009-03-25X	30 foot cable (9.1 m), NA Class I Division 2, ATEX Zone 2
RS-FS-9009-03-173	14.4 foot cable (4.4 m), NA Class I Division 2, ATEX Zone 2

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