



# Flame Tracker: Where quality matters

## History on gas turbines

The Reuter-Stokes Flame Trackers have been an integral part of gas turbines for over 26 years. The sensors have a proven track record on diffusion and low NOx combustion systems. They also have good detection capability and many hours of use with natural gas, fuel oil, diesel, distillate, naphtha, crude oil, hydrogen hybrid, and low BTU fuels. Over the years, the Flame Trackers have accrued over 500 million operating hours.

## Compliant with specification

Reuter-Stokes developed the Flame Trackers over time by working closely with a major gas turbine OEM. Reuter-Stokes has the only solid-state flame sensors that are approved for use by this gas turbine OEM. This status is hard won, requiring a battery of rigorous validation tests and operating turbine tests that inferior sensors have not achieved. This includes:

- Temperature cycling
- Temperature soak testing
- Light intensity testing
- Vibration testing

Plus multiple other validation tests including extensive field testing on gas turbines under varying operating conditions.

In addition, each unit must be tested according to Production Acceptance Tests listed in the gas turbine OEM specification.

Reuter-Stokes has demonstrated its compliance with all of these requirements to attain approval from the OEM for use on its gas turbines.

## Superiority of the Original Flame Trackers

The Reuter-Stokes Flame Trackers are ruggedly designed and have proven to be highly reliable over many years in the field. There are other sensors that may resemble the Flame Trackers but these cannot match the performance and compliance of the original. Ensure you are not compromising the integrity of your turbine safety systems.



Welded locking feature

| Capabilities                                                                                                                                                         | Flame Trackers | Imitation sensors |
|----------------------------------------------------------------------------------------------------------------------------------------------------------------------|----------------|-------------------|
| Approved for use and purchased by Gas Turbine OEM.                                                                                                                   | ✓              | ✗                 |
| Installed on new gas turbines from factory by Gas Turbine OEM.                                                                                                       | ✓              | ✗                 |
| Installed by Gas Turbine OEM service teams.                                                                                                                          | ✓              | ✗                 |
| Sensor meets Gas Turbine OEM weight specification of less than 2.0 lbs. [0.91 kg]. Weight is an important factor during operation when vibration levels can be high. | ✓              | ✗                 |
| Sensors meet Gas Turbine OEM locking specification. Welded closed.                                                                                                   | ✓              | ✗                 |
| Sensors locked to avoid disassembly and possible unsafe failures.                                                                                                    | ✓              | ✗                 |
| Capable of SIL3 operation.                                                                                                                                           | ✓              | ✗                 |
| SIL certified by an external product certification company.                                                                                                          | ✓              | ✗                 |
| Sensors include the big three hazardous area certifications necessary for global operations – North America, ATEX, and IECEx.                                        | ✓              | ✗                 |

