CONTINUOUS FLARE MONTIORING

with

MANTIS™

HIGHLIGHTS

Continuously monitoring the combustion efficiency of an industrial flare has been a long-standing technological challenge. Mantis™ meets this challenge by continuously measuring five important flare metrics in real time:

- Combustion Efficiency (CE)
- Smoke Index (SI)
- Flame Stability (FS)
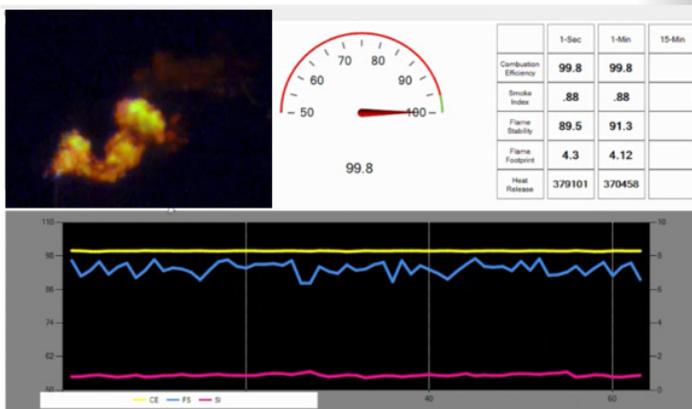- Flame Footprint (FF)
- Heat Release (HR)

BENEFITS

For the first time, Mantis™ makes it possible to operate a flare at the incipient smoke condition, optimizing combustion efficiency while minimizing the use of supplemental fuel gas, steam or air assist.

- Accuracy within 1%
- Low-maintenance cost
- Quick, easy installation
- Eliminates the need to monitor surrogate performance parameters such as Combustion Zone Net Heating Valve
- Closed-loop flare control
- Optimize CE and avoid visible emissions

SYSTEM FEATURES

- Continuous, autonomous flare monitoring
- Remote monitoring at distances up to 1,000 feet
- Streaming data available at one-second interval
- Streaming colorized video of flame for visual indication of CE and smoke level
- Modbus TCP and/or 4/20 mA output
- Optional User Interface with data visualization
- Monitor multiple flares with single Mantis™ system
- Zero latency

Mantis™ dashboard with live video feed (shown top-left)

PROVIDENCE PHOTONICS