

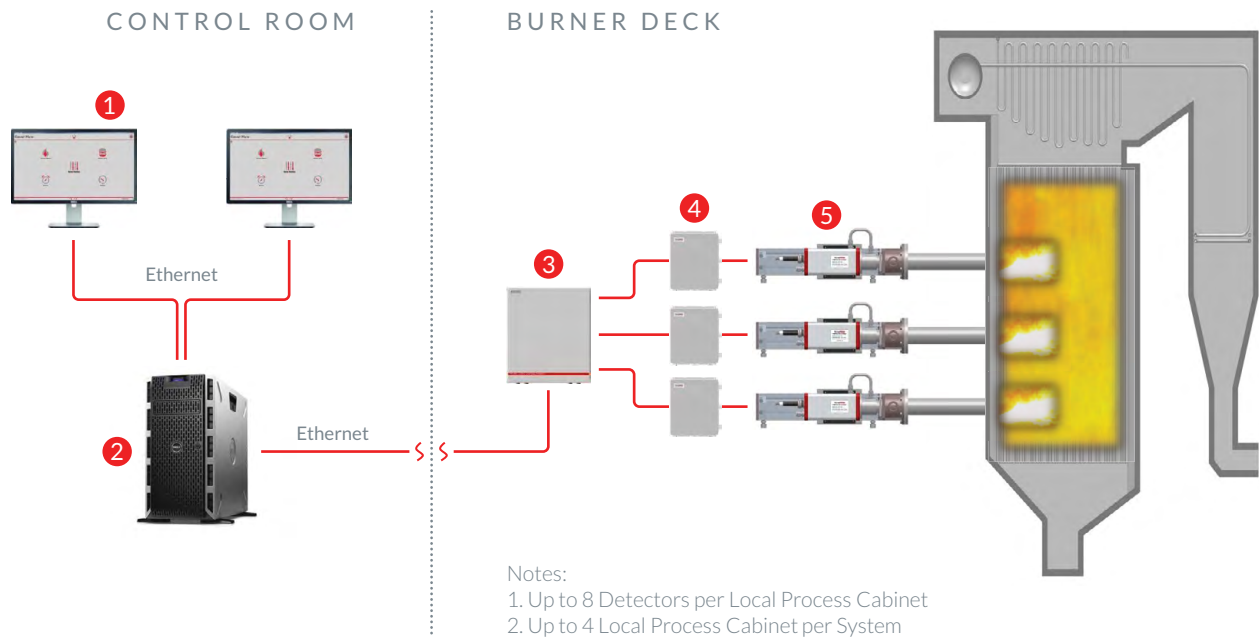
# TEMPVISION 5000



TempVision's two-color spectrum imaging technology measures furnace temperature within its viewing window with a better than 1% accuracy. TempVision simultaneously monitors the temperature and automatically compensates for emissivity variation caused by the soot around the target area. This is a critical capability for precise temperature measurement in a coal-fired furnace environment.

Safe-Fire's TempVision 5000 system continuously measures - in real time - burner temperature profiles inside a boiler's or furnace's combustion chamber. This dynamic system can be configured for use on a variety of boilers and furnaces with the appropriate combination of TempVision Detectors and a processing/communications suite. The on-demand combustion temperature display enables plant operators to make informed decisions to adjust the crucial fuel-to-air ratio inside the furnace. With a focus in the combustion field, Safe-Fire is committed to improving our customers' combustion efficiency through reduced fuel consumption, decreased emissions, and increased boiler service life.

## HOW THE TEMPVISION 5000 SYSTEM WORKS...



1 HMI Station: Rodin Q

2 Master Server: MCP-5000

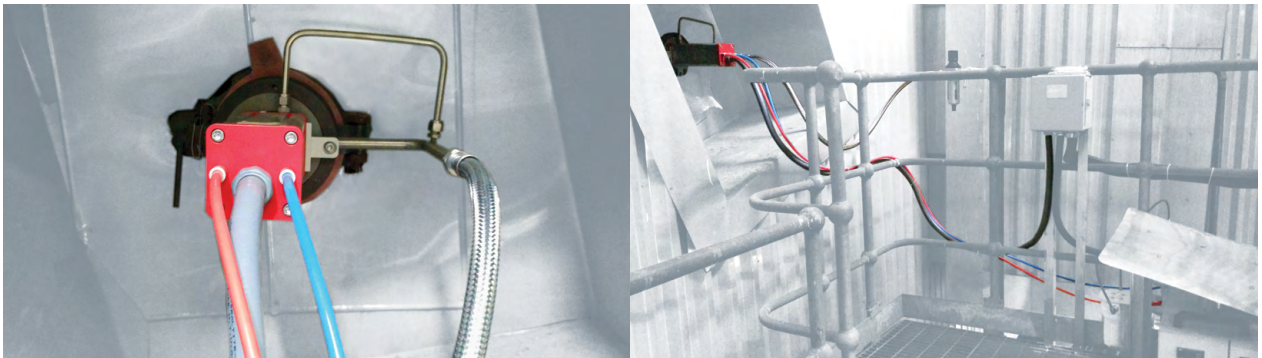
3 Local Process Cabinet

4 Terminal Box

5 Temperature Detector:  
TDU-5000

## FEATURES

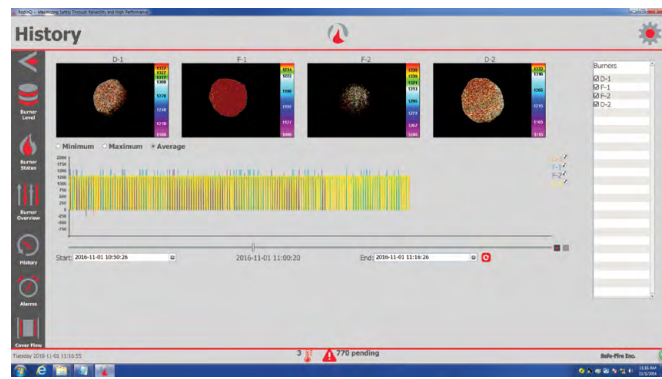
- Better than 1% accuracy
- Real time burner temperature profile
- Temperature measurement is independent of soot dynamic and emissivity variation
- On-demand combustion temperature view
- Data storage and analytical tool makes analysis easy
- Flexible alarm setting and powerful failure log screen
- Communication interface with process control system
- Modular design for easy maintenance and configuration



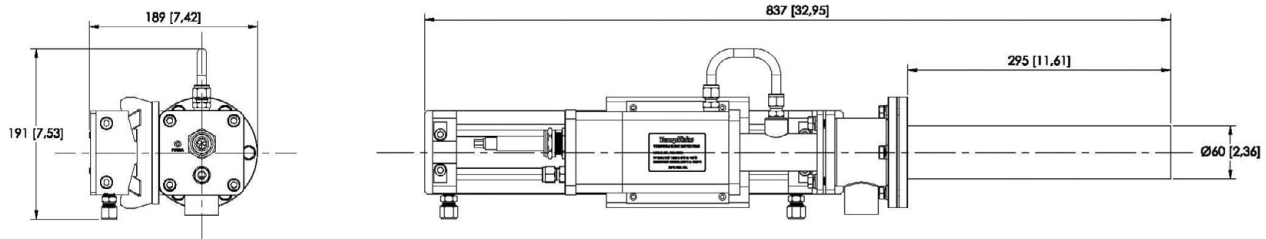
## BENEFITS

- TempVision 5000 system enables the operator to visualize the temperature distribution of burner flames as well as the maximum, minimum, and median temperatures of the region of interest.
- TempVision 5000 can correlate the impact of the temperature distribution of burner flames when a different type of coal is deployed.
- TempVision 5000 enables the user to intuitively understand the flame temperature differences and its distribution inside the furnaces.
- TempVision 5000 provides critical data for remote diagnosis of boiler combustion conditions.
- TempVision 5000 is a powerful tool for historical data analysis.
- TempVision 5000 system can be used to evaluate the performance of boiler operations under various conditions.

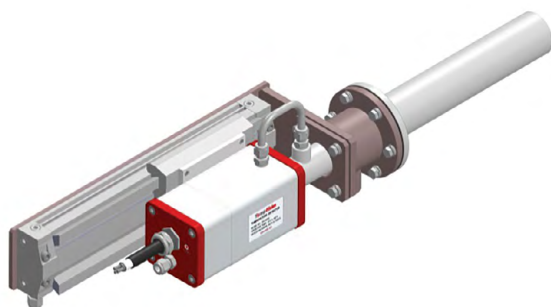
## SYSTEM SOFTWARE CAPABILITY



## DIMENSIONS



## TECHNICAL DATA



PRODUCT SERIES	TDU-5000
INPUT POWER	12-24VDC, 7.3W
MEASUREMENT RANGE	850°C To 1900°C
ACCURACY	Better than 1% full scale
FIELD OF VIEW (FOV)	60°
IMAGE PIXELS	1024(h)x768(v)
LENS LENGTH	12", 18", 24"
MOUNTING TUBE DIAMETER	60 mm(2.37")
WEIGHT	16kg (for 18" variant)

## **SAFE-FIRE GROUP**

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