

Pyrometer Troubleshooting Methods:

Temperature Measuring Errors / Non-Contact IR

- Indicated temperature is decreasing during the use of pyrometer, contamination of lens
 - Clean lens and or ensure IR sensor air purge is working (Dust, dirt, smoke, debris etc.)
- Contamination in the sighting path between pyrometer and object under measurement
 - Change position of the pyrometer with a clean sighting path or use a fan or air purge to sweep away the debris in the IR sensor's sight path / FOV
- Strong High-Frequency interferences
 - Change the position of the pyrometer. Move pyrometer further away from high frequency field or use of fiber optic sensor.

Temperature Measurement Reading is too low

- Optical Lens is contaminated
 - Clean lens carefully with appropriate lens cleaning solution.
- Incorrect alignment of the pyrometer to target under measurement
 - Correct alignment to achieve maximum temperature output signal.
- Measuring object is smaller than pyrometer spot size
 - Choose correct measuring distance (smallest spot size is at sensors' focus distance), use a 2-color sensor or 1-color sensor with a higher resolution FOV or closer focus distance
- Measuring object is Oscillating or periodically moving out of IR sensor's Field of View (FOV).
 - Use of Peak Picker / Maximum storage value
- Emissivity set too high
 - Lower emissivity setting for type of material being measured or viewing through a window.

Temperature Measurement Reading is too high

- Emissivity set too low
 - Raise emissivity to match to corresponding material type being measured. Use thermocouple to compare and match temperature measurement results
- Temperature measurement is influenced by hotter surrounding background reflections
 - Change sensors position/viewing angle or use a sight tube / radiation shields to block external stray radiation.