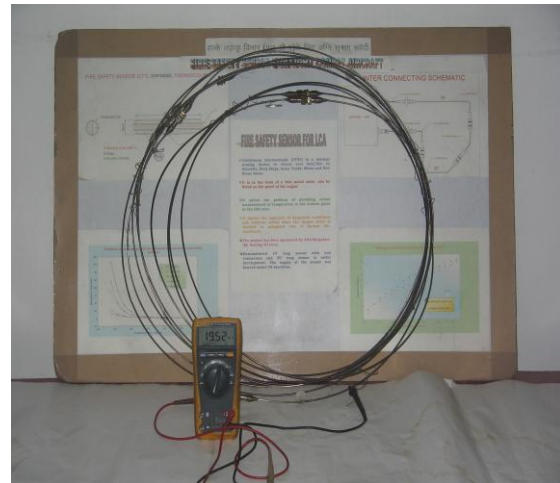
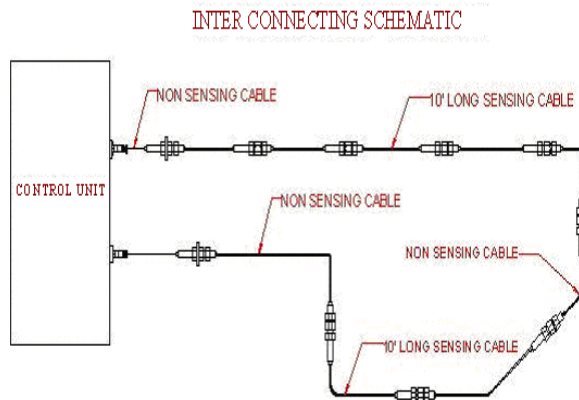


FIRE SAFETY SENSORS FOR LIGHT COMBAT AIRCRAFT (LCA)

OBJECTIVES:

- To detect the hot zone due to the sudden heating in LCA engine, within five seconds; anywhere along laid fifty feet length of sensor.
- Based on the ceramic composition linear thermal detector for sensing at different temperature can be designed



SALIENT MEASURES:

- ❖ Continuous thermal sensor.
- ❖ Negative Temperature Coefficient (NTC) material workable at desired temperature.
- ❖ For LCA early fire warning at $275 \pm 10^0\text{C}$ and fire temperature at $330 \pm 10^0\text{C}$

DIMENSION

- ❖ Seamless SS316 tube of diameter 2.8mm, filled with NTC material and encapsulated with two sensing wires of diameter 0.3 mm (running parallel to the tubular sheath and also to each other)
- ❖ Weight of sensor of fifty feet length is 750 grams.
- ❖ Cleared test of 300 endurance cycles and environmental test as per MIL standard.

ACTIVITIES:

- Technology developments as per MIL grade..
- Qualification tests cleared by A.D.A., R.C.M.A., C.R.I. and Q.A.
- Completed Air worthiness Qualification tests namely High temperature tests, Low temperature tests, Thermal shock tests, Humidity tests ,Salt Fog tests acceleration and vibration tests
- Material patented in US, EU, Japan, china Korea and India

APPLICATIONS:

- ◆ Sensors for L.C.A., armored tank, HCAC installation and overheat detection in any industries.