Sensor Solutions for Closed-Loop Aircraft Air and Liquid Cooling Systems

FCI Aerospace suite of ruggedized, flight qualified sensors for cooling system measurement and control

Real time, continuous health and performance monitoring of aircraft cooling systems during flight is best accomplished with solid state, highly reliable sensors matched to the specific application and conditions. FCI Aerospace brings more than three decades of experience to manufacturing air flow, liquid flow, liquid level, temperature, and pressure sensors designed for these aircraft cooling systems. These proven flight qualified and COTS sensors are factory calibrated to your specific application conditions, set ups and media. USA designed and manufactured products for aircraft closed loop air and liquid cooling applications.

USA designed and manufactured products for aircraft closed loop air and liquid cooling applications:

- **Direct mass flow, temperature, pressure and dual-function flow + temperature transmitters,** that provide continuous analog output signals of the measured value to provide indications of system performance. They have no moving parts to foul or maintain and are extremely low pressure drop.

  Typical applications include:

  – Identifying safe operation of system fluid flow, level and pressure values
  – Monitoring efficiency of valve diverter(s) for expected flow, pressure and temperature
  – Pump, cold plate and filter health monitoring

- **Flow, level, temperature and pressure switches** that provide a solid state, discrete output at specific value to send a warning or alarm annunciation to the crew.

  Typical applications include:

  – Notification of pending or possible fan, chiller or pump failure
  – Warning of too low/too high flow rate, over/under temperature, or over/under pressure condition
  – Alert when air cooling environment moves outside expected flow and/or temperature limits

- **Liquid level and temperature elements** for interface with client's electronic control units that produce a resistance (Ω) change to provide a continuous indication of fluid's wet or dry status and/or proportional to the fluid's temperature. These sensors are an ideal solution when redundant instrumentation is desired and the customer's aircraft electronics are programmable and preferred.

You can look to FCI Aerospace for a broad range of sensors to measure critical flow, level, temperature and pressure in air and liquid cooling systems. The combination of FCI Aerospace's rugged, reliable, and proven aircraft sensors, and their calibration in our factory laboratory that will match your application specific requirements ensures you can specify FCI with confidence.

Please contact FCI Aerospace today to discuss your current and future sensor suite applications.

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FCI is ISO 9001 and AS9100 Certified