

Flight Test Sensors

8 sensors were delivered to a military customer for in-flight testing. These sensors were built to meet the following criteria:

- Max. Displacement = 5 mm
- Required Accuracy = 100µm
- Model RC60
- Tip Exposure = 450°C at 6 bars pressure
- Tip Outer diameter = 2 mm
- Sensor Cable must have two connections
- Amplifier Box As Small As Possible
- Strong Vibration Environment
- 1,000 volt isolated output

Solutions - The Smallest Box

We designed a '123' box and circuit board. The box has dimensions 25 x 50 x 75 mm (1" x 2" x 3"). It is shown here beside our standard RC box and a miniDMS box. The 123 box has 4 x Ø4.5 mm thru holes for mounting. It has an alodined conductive coating for grounding purposes and a MIL-DTL-83513 Micro-D connector for input and output.



RC

mDMS

123

Solutions - Fiberoptic Cables

We provided a 3-part fiberoptic system:

1. The 123 box with connectorized cable
2. An extension cable
3. The sensor tip with connectorized cable



Solutions - Sensor Tip

To survive the 450°C pressure and vibration environment we used brazed sapphire windows and compression fittings on the sensor tips.



PLEASE NOTE

Due to their small size, the 123 circuit boards have reduced capability...limited high speed and high gain capability, no options A (heater) and no O, G or V10 outputs.

The new features shown here, the 123 box, micro-D connectors, fiberoptic extension cables and brazed windows are not presently available on our price list. If you develop customer interest in any of these features, please RFQ the factory for price and availability.