RTD STANDARDS

Maximum Operating Range = -200°C to 850°C (-392°F to 1562°F)
Note: RTD's are not commonly used above 900°F. However, JMS offers a special high temperature RTD which will withstand temperatures up to 1560°F.

Interchangeability = ±.01°C to .25°C at 0°C

Stability = Less than .05°C shift per year.

Electric Supply = AC or DC ≤ 500 Hz.

Nominal Operating Current ≤ 1 milliampere.

Maximum Safe Current = 20 Milliamperes.

Insulation Resistance = 100 mega ohms minimum at 50 VDC.

Probe Encapsulation = High purity alumina oxide.

Time constant for RTD element without tubing = 1 second maximum for the sensor to reach 63.2% of a step change in temperature in water at 3 feet per second.

RTD probes will usually not have a transition if the lead wires are less than 12" in length.

Accuracy
The standard accuracy of JMS Southeast's RTD is .1% of resistance at 0°C . Accuracies of .03% and .01% of resistance at 0°C are also available.

Stability
JMS Southeast bulbs are aged as part of the manufacturing process, thus ensuring high levels of stability. Generally the resistance at 0°C will hold less than a .05°C shift per year.

Vibration
JMS detectors can withstand a vibration level of 30g over the frequency range 10 Hz to 1 KHz.

Pressure
JMS RTD's are insensitive to large changes of pressure.

Response Time
Response time of JMS Southeast metal encapsulated probes is dependent on the outside diameter of the probe and the immersion media, usually matches that of the same size ungrounded thermocouple. (See page 1-13)

Self Heating
When tested in accordance with requirements of BS 1904: 1964 Section 3.16 the indicated temperature rise in the temperature detector with a power of 10.0mW dissipated in it, will not exceed +.3°C.