

## CR1 Harsh Environment Thermistor Coating and the Automotive Industry

### Target Applications

- Air Intake Manifold (AIM) Sensors
- Exhaust Gas Recirculation (EGR) Systems
- Temperature and Manifold Absolute Pressure (TMAP) Sensors
- Urea Storage and Delivery Systems (SCR)
- Gearbox and Transmission Sensors exposed to Automatic Transmission Fluid (ATF)

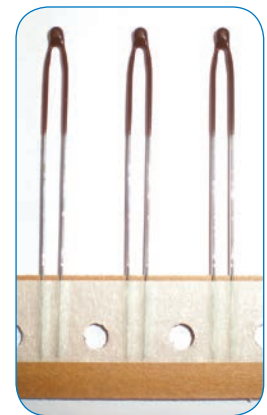
### Drivers

- Euro VI Emissions Reduction Legislation 2015/2016
- Standard epoxy thermistors will not meet 170°C
- Chip-in-glass products can corrode at glass/metal interface

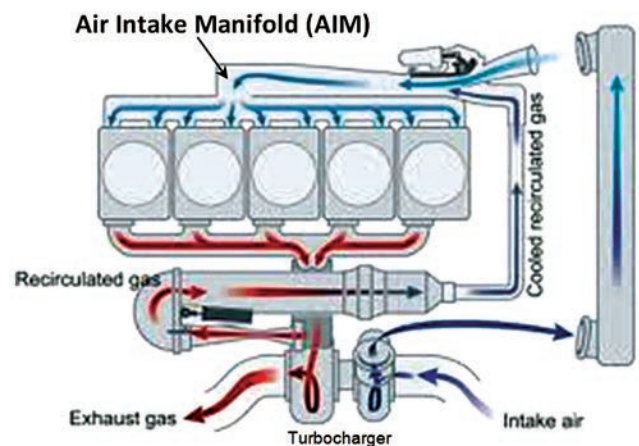
### Benefits

- Tested to AEC Q200 (Material 4A Types)
- Chemical resistance [Acids/Fuels/Oils/Urea]
- High temperature operation up to 190°C
- Water immersion, silver migration resistance
- High thermal shock performance
- Electrical insulation up to 1000V DC at 25°C
- Flexible – Lead wires can be formed
- Continuous coating – No joints
- Fast time response
- Alternative to chip-in-glass sensors

### Tested to AEC Q200



Exhaust Gas Recirculation (EGR) System in Modern Diesel Engine



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