Thermometrics GE-1856 Intake Air Temperature Sensor (IAT) monitors the temperature of the incoming intake air for an engine and provides a signal output that is proportional to air temperature. This signal can be used as an input to provide a signal to an Engine Control Unit (ECU), which uses this information to adjust fuel delivery and optimize the air-to-fuel ratio to produce the most efficient combustion. GE-1856 is also suitable for air duct temperature measurement in non-condensing HVAC applications.

**Applications**

- Intake Air Temperature
- Duct Air Temperature

**Features**

- High accuracy and long-term stability
- Fast response time
- Designed for easy installation and service
- Integral sealed connector
- Alternate RVT curves possible
- Other resistance and beta values possible

Amphenol

Advanced Sensors
GE-1856 Specifications

- **Operating Temperature Range:**
  -40°C to 125°C

- **Storage Temperature Range:**
  -40 to 130°C

- **R @ 25°C:**
  2049 ± 9.93%

- **Beta (25/85)°C:**
  3541K

- **Response Time:**
  ≤6 seconds from 20°C to 100°C in stirred water

- **Housing Material:**
  PBT GF30 Tan

- **Connector:**
  AMP Sealed Connector System (SCS)

- **Mating Connector:**
  AMP P/N 184004-1 (Key C)

- **Thermistor Material System:**
  S7.6

### R vs. T

<table>
<thead>
<tr>
<th>Temp. (°C)</th>
<th>Resistance (Ω)</th>
<th>Resistance Tolerance (±%)</th>
<th>Tolerance (-) (°C)</th>
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<tbody>
<tr>
<td>-20</td>
<td>14968</td>
<td>15.76</td>
<td>3.05</td>
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<tr>
<td>-10</td>
<td>9176</td>
<td>14.10</td>
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<tr>
<td>20</td>
<td>2500</td>
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<tr>
<td>25</td>
<td>2049</td>
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<tr>
<td>60</td>
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<td>80</td>
<td>337.3</td>
<td>12.75</td>
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<tr>
<td>120</td>
<td>120.0</td>
<td>14.68</td>
<td>6.14</td>
</tr>
</tbody>
</table>
GE-1856 Dimensions

Mounting Interface

Typical Application Circuit

GE-1856