

## Delphi Air Temperature Sensors

### ► Description

Delphi's Air Temperature Sensors are continuous function devices that change resistance inversely to temperature. They measure engine intake air temperature in the manifold, intake air duct, and air cleaner. A signal is then sent to the powertrain control module. Two versions are available:

- Intake Air Temperature Sensor
- Manifold Air Temperature Sensor



**Delphi Air Temperature Sensors**

### ► Benefits

- High-temperature thermoplastic shell for durability
- Patented, lightweight, and cost-effective pre-mold subassembly
- Design flexibility to match calibration criteria, meet mounting and packaging requirements, and integrate with systems
- Customized packaging of mounting features, sealing options, connection system, and resistance output
- Crimpless conductive path to the negative temperature coefficient thermistor and calibration certification for enhanced reliability and accuracy; also eliminates an electrical interface
- 100 percent resistance calibration verification helps ensure quality and reliability

## Delphi Air Temperature Sensors

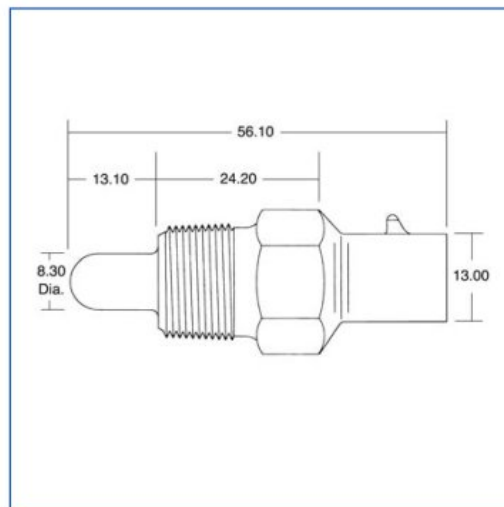
### ► Specifications for Manifold Air Temperature Sensor

#### Thermal and Electrical Properties

- Typical voltage supply: 5 V DC
- Operating temperature: -40°C to +135°C
- Resistance at 25°C: 2795 ohms
- Thermal time constant: 60 seconds in dry air stream
- Accuracy ( $\pm^\circ\text{C}$ ) -40°C to +100°C: 0.56 to 0.77
- Accuracy ( $\pm^\circ\text{C}$ ) +100°C to +150°C: 0.77 to 1.24

#### Mechanical Characteristics

- Sensor body material: PE 30% GF
- Hex size: 18.90 mm (3/4 in.)
- Thread size: 3/8 in. - 18 NPTF
- Thread sealant: Loctite (Loctite is a trademark of its respective owner.)
- Installation torque: 10.8-16.3 Nm, dynamic
- Overall weight: 13.84 grams
- Color: gray and black
- Suggested mating connector assembly: P/N 15336004 or P/N 15335987



**Manifold Air Temperature Sensor**

Note: All measurements are in millimeters.

## Delphi Air Temperature Sensors

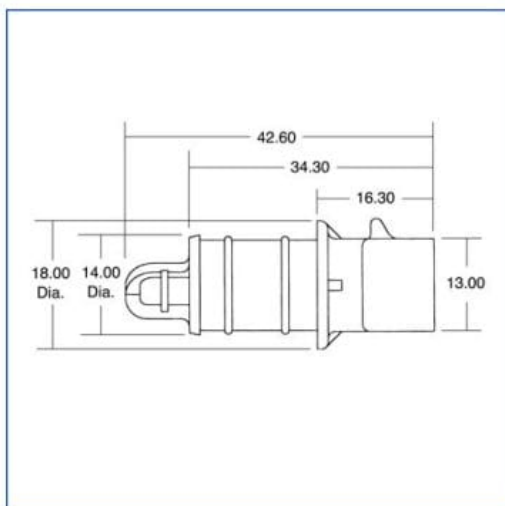
### ► Specifications for Intake Air Temperature Sensor

#### Thermal and Electrical Properties

- Typical voltage supply: 5 V DC
- Operating temperature: -40°C to +135°C
- Resistance at 25°C: 2795 ohms
- Thermal time constant: <15 seconds in dry air stream
- Accuracy ( $\pm^\circ\text{C}$ ) -40°C to +100°C: 0.56 to 0.77
- Accuracy ( $\pm^\circ\text{C}$ ) +100°C to +150°C: 0.77 to 1.24

#### Mechanical Characteristics

- Sensor body material: PBT 30% GF
- Installation: press fit into air duct
- Overall weight: 5.52 grams
- Color: black
- Suggested mating connector assembly: P/N 153359



**Intake Air Temperature Sensor**

Note: All measurements are in millimeters.