

Automotive Sensor Products

Blow-By Heater



General Description

Blow-by gases escape from the combustion chamber of the engine and reach the crankcase. These gases must be re-circulated in the intake manifold to avoid overpressure damages to the engine. When the gases reach the intake manifold they expand and the moisture contained within them can become ice, damaging the turbocharger.

The Blow-by Heater keeps these gases warm and prevents ice formation.

Operation

Basic Principle

When the vehicle ECU detects the risk of ice formation, the Blow-by Heater is switched on by an external relay or power switch. The Blow-by Heater warms the re-circulated crankcase gases, which avoids the risk of damages to the compressor.

Packaging Options

Custom packaging can be provided to meet any need, please contact Littelfuse Engineering for details.

Features

- ◆ Self regulated PTC heating elements
- ◆ Wide power range available
- ◆ Choice of connectors and terminals

Benefits

- ◆ Robust construction makes this heater well suited to harsh environments
- ◆ PTC self regulates the power absorption in function of flow and temperature of the Blow-by gases
- ◆ No external thermostat needed due to low power consumption

Applications

- ◆ All diesel and gasoline engines

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Functional Characteristics

| Parameter | | | |
|--------------------------|-----------|---------|---------------|
| Type | | | |
| PTC Blow-by Heater | | | |
| Electrical | | | |
| Voltage | Min | V | 8V |
| | Max | V | 16V |
| Rating | Power | W | 15W @ 12V |
| Thermostat | | | Not present |
| Environmental/Mechanical | | | |
| Temperature | Operating | Celsius | -40° to +125° |
| | Storage | Celsius | -40° to +125° |

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