

# 3000 Series Thermostats in Vehicle Fire Suppression Applications

### BACKGROUND

A fire resulting from a vehicle collision may lead to death because it becomes impossible to escape the burning vehicle. An effective fire suppression system helps to reduce fatalities in these situations.


### SOLUTION

Honeywell manufactures the 3000 Series Thermostats (see Table 1), a range of rugged, sealed thermostats, that signal when a certain temperature has been reached. In an automatic fire suppression system, the thermostat signals the system to discharge in the event of a fire.

When the thermostat ambient temperature reaches the rated temperature, the switch contacts close, completing the electrical circuit which triggers the system actuator. When the thermostat cools, the contacts reopen, which resets the thermostat to its normal operation condition.

At least one thermostat is installed in each protected area of the vehicle (see Figure 1). The four-conductor configuration allows continuous integrity monitoring of all circuits connecting the thermostats.

**Table 1. 3000 Series Vehicle Fire Suppression Thermostat**

3000 Series Vehicle Fire Suppression Thermostat

Features and Benefits
<ul style="list-style-type: none"> <li>• Stainless steel housing provides enhanced resistance to corrosion and harsh, under-the-hood chemicals</li> <li>• Sealed construction designed to prevent water ingress</li> <li>• Configurable operating point may be tailored to application requirements up to 232 °C [450 °F]</li> <li>• Enhanced response for reduced deployment time</li> <li>• Enhanced reliability for potentially maintenance-free operation</li> <li>• Flexible mounting bracket allows multiple installation sites for the same product</li> </ul>

**Figure 1. Fire Suppression System Block Diagram**

