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KIDDE DUAL SPECTRUM® TACTICAL WHEELED VEHICLE TWO-ZONE AFES SYSTEM

CONSTANT MONITORING, FAST RESPONSE

Protect engine compartments and other unobserved areas

The Collins Aerospace Kidde Dual Spectrum® tactical wheeled vehicle two-zone automatic fire/explosion suppression (AFES) system comprises extremely fast and highly accurate Dual Spectrum sensors that detect fires and explosions in zones such as crew areas and engine compartments. Additional protection systems are available, supporting external, wheel and track areas.

The AFES extinguishers are equipped with high-speed valves to immediately flood affected compartments with efficient and approved extinguishing

agents. Fire or explosions caused by rounds penetrating the vehicle are effectively suppressed by this near-instantaneous response and remain within U.S. government LOAEL/NOAEL specifications for personnel.

Constant monitoring of unobserved areas, such as engine compartments or mechanical areas, ensures that fires do not become established when using Kidde sensors and detectors.

Over 275,000 vehicles in more than 20 countries worldwide are fitted with our Kidde AFES systems. Drawing on our more than 40 years of fire suppression experience, AFES safeguards crews and vehicles automatically and at reaction times that cannot be matched by manual systems.

KEY FEATURES & BENEFITS

Sensor

- Monitors high-rate/explosive events
- False alarm immunity per MIL-PRF-62546, Table 1

Controller

- Monitors system health
- Activates extinguisher

Extinguisher

- Milliseconds response time
- Field-proven design
- No life limited components

TYPICAL VEHICLE INTEGRATION

Optical sensors are located throughout the protected zone so that the entire space is monitored. Fire extinguishers are in supportive locations with distribution nozzles to ensure sufficient agent concentrations reach all parts of the protected space.

An Agent Concentration Test (ACT) is typically conducted to validate concentration design. The control electronics panel is located within easy reach of driver and/or commander. Our Kidde engineers are experts in vehicle integration with experience on many vehicles from conceptual design to government live fire testing.

SYSTEM COMPONENTS

Typical complete systems include the following EMI protected components:



TWV controller

- MIL-STD-1275A
- MIL-STD-461E
- MIL-STD-810F
- Built-in test
- Optional watch mode up to 120 minutes after vehicle shutdown
- Monitors up to two zones

Fire extinguisher

- MIL-STD-62547
- Non-shatterable
- High-speed solenoid valve
- Refillable
- No life limited parts
- IP-67
- Operating temperatures: -60° F to 160° F (-51° C to 71° C)

PM-3MT sensor

- Optical infrared
- IP-67
- Immune to false alarm
- Continuously supervised
- MIL-STD-810G

Backup power supply (optional)

- Super-capacitor
- Uninterrupted power to AFES if vehicle battery is compromised
- Can discharge to 0 volts without adverse effect to service life

Electrical harness

- Automotive loom
- Deutsch connection
- Lightweight
- Repairable

Specifications subject to change without notice.



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