KIDDE DUAL SPECTRUM® CONTROL ELECTRONICS PANEL

FULLY INTEGRATED FIRE PROTECTION

Reaction times within milliseconds

Collins Aerospace's Kidde Dual Spectrum® control electronics panel (CEP) combines fire suppression system control and interface functions into a single unit. It serves the dual purpose of control electronics and control panel. This approach reduces component count and weight while simplifying the design of electrical wiring harnesses.

The CEP is capable of multiple zone detection and can drive up to eight high-speed extinguishers. It controls fire sensor monitoring, extinguisher discharge logic, built-in test (BIT), component status indication and communication to the vehicle via discrete outputs or CAN bus.

At start-up, the CEP automatically performs BIT. The user can manually activate BIT at any time. Sensors, extinguishers and external manual discharge switches can be continuously supervised for detection status. Fault indication is provided by LED feedback on the overlay, CAN bus status messages and a master trouble discrete output.

When a sensor detects a fire, the CEP will activate the appropriate extinguisher within milliseconds. If an extinguisher fails to operate, the CEP can automatically activate a backup extinguisher. Alternately, a controller can perform this activation. The CEP provides fire warning outputs to inform the operator where a fire has occurred and indication of extinguisher discharge status.

The CEP overlay includes a power status indicator, fire warning indicators and an LED corresponding to every component within the fire suppression system. This offers a single point of status indication and system control.

Our Kidde CEPs protect the world's most advanced armored vehicles.

KEY FEATURES

- Inputs for up to 12 optical fire sensors and four linear thermal detectors

- Outputs for up to eight fire extinguishers

- Automatic and manual discharge for each protected zone

- Integrated manual discharge switches for each protected zone

- Inputs for external manual discharge inputs

- Continuous supervision of system components and automatic BIT at system startup

- Push buttons for BIT, reset and maintenance mode

- Programmable delayed shutdown (silent watch) with maintenance mode override

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KEY FEATURES – CONT.

- Discrimination in crew compartment
- Enhanced History mode
- CAN bus digital protocol
- Flash programmable via external interface
- Supports multiple system configurations without firmware reprogramming
- Fully qualified and fielded on thousands of armored combat vehicles

SPECIFICATIONS

Voltage characteristic	Meets requirements of MIL-STD-1275A, D and E
Power	5 watts at 28 VDC
EMI	Qualified to appropriate CE, CS, RE and RS requirements of MIL-STD-461E
Weight	6 lbs. maximum (2.7 kg)
Temperature, operational	-40° F to 160° F (-40° C to 71° C)
Environmental	Qualified to vibration, shock and humidity requirements of MIL-STD-810 for combat vehicle conditions
	Qualified to MIL-STD-461F, MIL-STD-1275A, MIL-STD-1275D, MIL-STD-1275E and ATPD-2404A
	IP-67 immersion rated
MTBF	190,000 hours

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