

The Detector Controller is the latest model being installed in military tactical and combat vehicles.

The unit is microcontroller based enabling flexibility in system design and adjustment of features to a specific application. RS-485 communication provides outputs for control, set up, maintenance and diagnostics.



The Detector Controller governs the troop compartment system components, eliminates the need for a separate control box, reduces cabling, and is cost effective without degrading performance and reliability. This unit is ideal for small vehicles.

Main Features

- UV/IR Dual-Sensor
- High Speed Response - less than 3 msec
- Sensitivity to slow growth fires
- Accepts input signal from up to two external detectors
- Monitor and activation of up to two cylinders
- Indication and warning signals
- Integral Manual activation
- Accept one external manual activation input
- Blackout Switch
- High Reliability
- Immunity to False Alarm
- Discrimination - optional
- Automatic and Manual Built-In Test (BIT)
- RS-485 Modbus Compatible
- MTBF Minimum 150,000 Hours

Detection Specifications

Spectral Response	UV/IR
Response Time	Max. 3 msec. - when detector is exposed to vehicle penetration or explosive fire
Detection Threshold	At least one detection signal every 5 seconds when detector is aimed at the base of 5" (12.5 cm) gasoline pan fire at a distance of 35" (80 cm) from the center of the flame
Field of View	90° horizontal, 90° vertical
Built-in-Test (BIT)	Automatic and manual check of window cleanness, sensor and electrical circuitry
Discrimination (Option)	Disables detection signal when no fuel ignition/explosion/fire occurs following penetration
Temperature Range	-40°F to 160°F (-40°C to 70°C)
Humidity	Up to 95%

Control Specifications

External Detector Input	<ul style="list-style-type: none"> Supplies protected voltage to detectors according to MIL-STD-1275D Accepts fault or alarm signals from the detectors Provides activation signal to the extinguishers
Extinguisher Monitoring Status	Continuously monitors for circuit continuity, pressure level and adequate operation of up to two extinguishers
Outputs	Provides up to two activation outputs for extinguishers
Indication and Warning Signals	<ul style="list-style-type: none"> "Power" LED - indicates proper power supply "Discharged Cylinder" LED- indicates proper cylinders and harness status
Built In Test (BIT)	Identify and indicate faults in the electrical circuits of the control and detection elements, provides operational status of the cylinders and their circuitry
Manual Extinguisher Activation	Enables manual activation of the cylinders. Can be located either on the driver panel or externally

Electrical Specifications

Power Supply	Operating Voltage: 18-33 VDC				
Power Consumption	Normal 50mA	Max. 80mA			
Activation Signal	4A (at 24 VDC)				
Activation Duration	30msec.				
Electrical Connection / Pinout	Model No.	708422			
	Connector	MS3112E-14-19P			
	Vin 18-32 VDC	A	Detector 1 signal IN	L	
	RTN	B	Detection signal OUT	M	
	Activation Cyl.1	C	Dimmer	N	
	RTN Cyl. 1	D	Coding	P	
	Pressure Sw. Cyl. 1	E	Comm. Port	R	
	Activation Cyl. 2	F	Comm. Port	S	
	RTN Cyl. 2	G	Detector 2 Power	T	
	Pressure Sw. Cyl. 2	H	Detector RTN	U	
	Detector 1 Power	J	Detector 2 signal IN	V	
	Detector RTN	K			
	Electrical Input Protection	According to MIL-STD-1275D			
	Electromagnetic Compatibility	EMI/RFI per MIL-STD-461E			

Mechanical Specifications

Dimensions	3.8" x 4.4" x 2.42" (96 x 112 x 61.5 mm)
Weight	1.36 lb (0.62 kg)
Enclosure	Aluminum, white epoxy enamel finish
Environmental Standards	Meets MIL-STD-810E for High Temp, Low Temp, Humidity, Vibration, Shock, Waterproof, Dust, Salt & Fog

Accessories

Fire Simulator	P/N 706905
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False Alarm Susceptibility

The detector shall not provide a detection signal under any of the following conditions:

Radiation Description	Immunity Distance (in.)
Direct or reflected sunlight	IAD*
Incandescent frosted glass light, 100 W	IAD*
Incandescent clear glass light, rough service, 100 W	IAD*
Fluorescent light with white enamel reflector, 40W	IAD*
Ambient light extremes (darkness to bright light with snow, water, rain, desert glare and fog)	IAD*
Bright color clothing, including red and safety orange	IAD*
Electronic flash (180 watt-seconds minimum output)	IAD*
Movie light, 625W quartz DWY lamp (Sylvania S.G-55)	24
Red vehicular dome light	IAD*
Blue-green vehicular dome light 24V of direct current (dc)	IAD*
Flashlight	IAD*
Electric Arc 15/32 in. Gap at 4000 VAC	1
Arc Welding 5/32 in. rod 100A	24
Radiation heater, 1500W	IAD*
Radiation heater, 1000W with fan	IAD*
Muzzle flash from M16 rifle, 3 round burst	2
Lit cigar	IAD*
Lit cigarette	IAD*

*IAD – Immune Any Distance