

## MODEL 801-DRL FIRE/OVERHEAT DETECTOR

### KEY FEATURES

- Qualified to FAA TSO-C11e
- Proven Pneumatic Operation
- No Connector Required – Aircraft Wiring Mates to Terminal Studs
- Integrated Wire Harness/Guide Eliminates Chafing and Breakage
- Immune to EMI and RF Signals
- Superior Performance under Extreme Temperature & Vibration Conditions
- No Scheduled Maintenance



### GENERAL DESCRIPTION

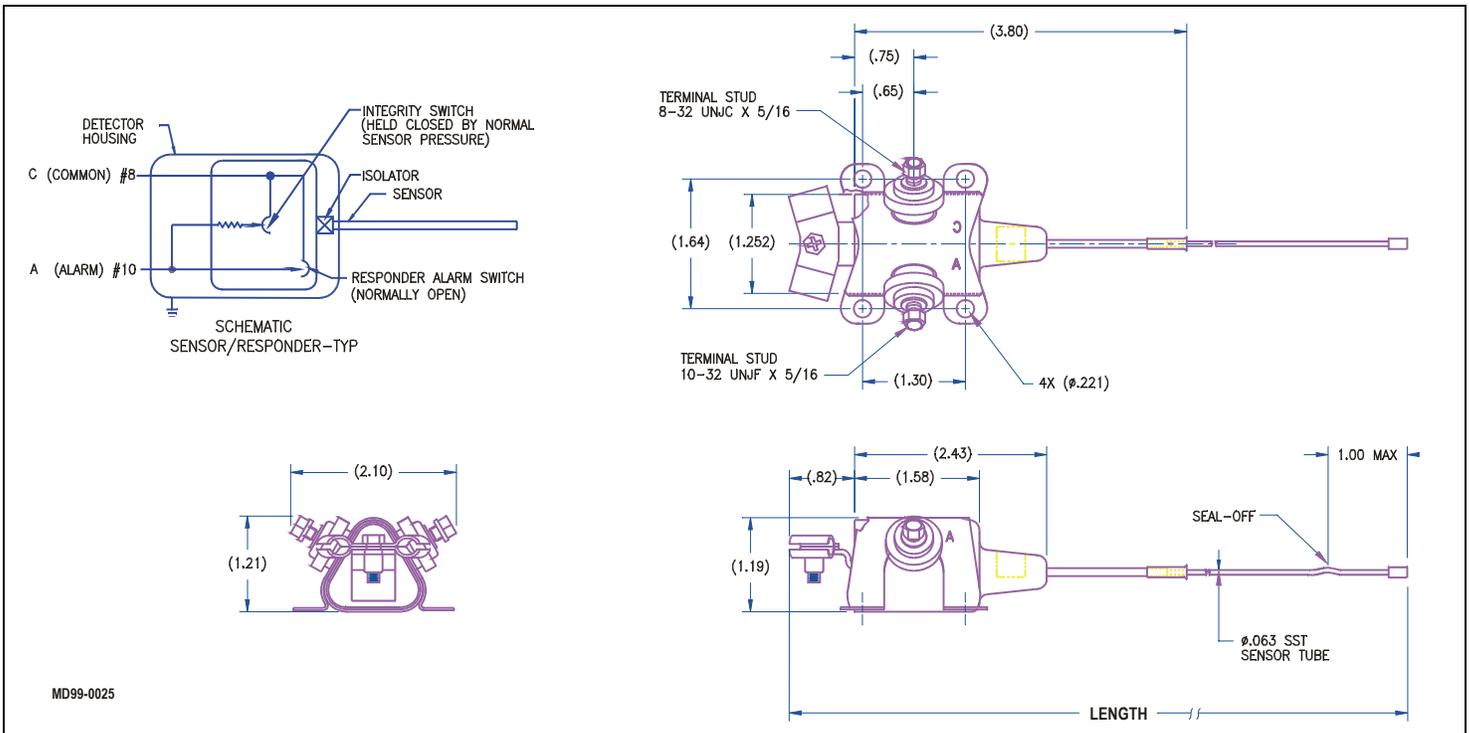
The Model 801-DRL Fire/Overheat Detector operates on the same pneumatic principle as our widely used and proven Model 801-DRH, 801-RDS, and 801-DRSS detectors. The DRL responder assembly has been repackaged to reduce weight and optimize reliable operation in high temperature, high vibration environments. Dual terminal studs permit direct “hardwire” connection to aircraft wiring. The studs are sized differently to preclude cross-wiring.

The detector consists of a switch assembly and a continuous-length temperature sensor. The two pressure-sensitive switches (Alarm and Integrity) are sealed inside a hermetic housing and connected to the sensor via a manifold. The sensor is a length of flexible stainless steel tubing containing helium gas, and hydrogen gas within a special core material.

### OPERATION

**Alarm.** If the ambient temperature around the sensor increases, or a short section of sensor is exposed to extreme heat, gas pressure inside the detector increases proportionately. Pressure increase to a factory-set value closes an electrical contact and actuates the alarm circuit. When the temperature decreases, lowering the internal pressure, the Alarm switch opens and the detector is automatically reset.

**Integrity.** The responder Integrity switch is held closed by normal gas pressure. If the sensor is severely damaged to the point of leaking, the resulting loss of gas pressure will cause the Integrity switch to open and signal a fault.



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### SPECIFICATIONS (Reference Only)

**Flame Response:** 5 second response to TSO-C11e standard 6 inch, 2000°F flame, clearance within 45 seconds

**Fire Resistance:** 2000°F for 5 minutes

**Operating Temperature:** -65°F to +800°F (-54°C to +427°C). Consult factory for test data pertaining to operational temperature range and/or specific application requirements.

**Alarm Temperature Range:** Values to 850°F (458°C), factory set

**Operating Voltage:** 28 VDC aircraft power

**Switch Operation:** Snap action; normally open Alarm; normally open Integrity held closed by sensor pressure

**Contact Rating:** 0.75 amps @ 28 VDC resistive load, 0.5 amp inductive

**Construction:** Hermetically sealed, corrosion & contamination resistant. Resistant to Skydrol 500, MIL-L-7808 lubrication oil, and jet engine fuels

**Length:** Customer specified, 2 feet to 40 feet (0.61 m to 12 m)

**Weight:** 0.37 lb. +0.01 lb./ft. sensor  
(0.168 kg +0.015 kg/m) sensor

#### HEADQUARTERS

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