



## **Guidance Note Testing Multisensor Detectors**

### **FIA Guidance for the Fire Protection Industry**

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## Testing Multisensor detectors

The increasing use of multisensor detectors in fire detection and fire alarm systems has led to some discussion as to how they should be tested.

This FIA guidance paper is intended to provide guidance to service personnel when testing multisensor detectors during routine servicing.

The FIA is currently drafting a more detailed guidance document on multisensor detectors. In the meantime the recommendations detailed below should be considered as the minimum for properly testing these complex devices:

1. Multisensor fire detectors should be tested by a method that confirms that products of combustion in the vicinity of the detector can reach the sensors and that the detector responds appropriately. A test method purely reliant on an electronic and / or mechanical means is not sufficient to comply with this requirement.
2. Due to the complex nature of multisensor fire detectors, they should also be tested in accordance with the manufacturer's instructions.
3. Where the detector or system design allows each sensor on which a fire detection decision depends (e.g. smoke, heat, CO) to be tested independently, then these sensors should be tested independently.
4. Alternatively, individual sensors may be tested together if the detection system design allows simultaneous stimuli and individual sensor responses to be verified either individually or collectively.
5. Only where the detector or system design is such that individual sensors cannot be tested individually, for example certain types of conventional multisensor detectors, the primary sensor alone should be tested.
6. The response to each test should be at least confirmed by the CIE.
7. All tests and their results should be recorded.

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