

## FLAME DETECTOR – MAINTENANCE GUIDE

The flame detectors are designed to give years of trouble-free operation with minimal attention. However the periodic maintenance steps listed below are essential to maintain reliable fire protection.

1. Inform all appropriate personnel of intention to work on the flame detectors.
2. Disable any automatic systems that may be activated by the flame detectors if not required as part of the maintenance check.

### **Alarms**

- Audio / Visual
- Auto Diallers

### **Extinguishers**

- Gas Systems
- Water Sprays

### **Control**

- Plant Stops
- Dampers / Doors

3. Check that the control panel for the detectors is functioning correctly and shows no faults.
4. Inspect the detector-viewing window for any build-up of dust or other contaminants on the optical surface. If necessary clean the optical surface with a cotton wipe wetted with commercial liquid glass cleaner. Rinse with clean water and dry with a clean cloth.  
The detector specification for performance is with a clean optical sensor window. Contaminants like dust, oil and paint will reduce sensitivity.
5. Ensure the detector still has a clear line of sight of the area it is protecting and no obstacles obstruct its view.
6. Check that the detector is securely fitted.
7. Visually check the exterior of the detector for any mechanical or corrosive damage.
8. Test the operation of the detector with any of these three methods, if practical a portable flickering yellow Bunsen flame, portable flame sensor test unit or the activation of the inbuilt detector IR test LED's.

- The portable flicking yellow Bunsen flame should activate the flame detector at a distance of 5m within 10 seconds.
- The portable flame sensor test unit should activate the flame detector at a distance of 3m within 20 seconds.
- The detectors are fitted with internal IR LED's that can be activated to optically test the detector.

(The above tests apply to detectors at room temperature under normal factory lighting conditions. The detectors and test unit are assumed to be at the factory default settings.

Note: Standard EN54:10 states that detectors will produce an alarm condition within a time of 30 s.)

9. Reinstate any automatic system disabled during maintenance.
10. Inform all appropriate personnel on completion of the maintenance work and if necessary record this work.