

FAQ:

**1.) What kind of capture devices should I need in order to use Fire/Smoke Detectors?**

Since NovoSun Fire/Smoke Detectors are back-end video analytics, video sources coming from IP camera, capture card, compression card, streaming media or even local video files will work. However, video source has to be kept as stable as possible in order to get high detection accuracy, which means that it is better to minimize factors such as noises, camera vibration or dramatic change of lighting condition.

**2.) What is the resolution and frame rate requirement of source videos for Fire/Smoke Detectors?**

The minimum resolution requirement is CIF and the minimum frame rate requirement is 20 fps and 10 fps for Fire/Smoke Detectors, respectively.

**3.) What is the required lighting condition for Fire/Smoke Detectors? Can the detectors be used at night?**

Fire and Smoke Detectors can be used at black and white scenes such as video sources from low light or IR cameras. General speaking, the detectors are able to detect fire/smoke as long as the flame or smoke in the video can be seen by human(different parameters should be set for day/night modes). According to our test, Fire/Smoke Detectors are able to work at as low as 0.001 lux.

**4.) What kind of environment is suitable for Fire/Smoke Detectors?**

Fire/Smoke Detectors are suitable for both indoor and outdoor environments such as warehouse, parking lot, exhibition center, mall, etc.

**5.) What about the accuracy of Fire/Smoke Detectors, respectively?**

The accuracy of Smoke Detector is about 97%, while it is about 95% for Fire Detector. *(In order to get high accuracy, parameters such as sensitivity and detection interval should be adjusted according to actual environment).*



## 6.) What are the effective detection distances for Fire/Smoke Detectors?

Effective detection distances for Fire/Smoke Detectors are 50 meters and 200 meters, respectively. The detectors are able to work at longer distance, at the cost of performance drop though.

## 7.) Does any restriction exist for Fire/Smoke Detectors?

### **Fire Detector:**

If there are objects with color similar to that of fire such as hand or red objects, the sensitivity should be set to “Medium” or “High” in order to reduce the false alarm rate. In addition, Fire Detector mainly uses physical characteristics of combustion under an oxidizing element such as oxygen or fluorine to recognize fire. Therefore, the accuracy may be reduced for man-made burning sources such as lighters, bunsen burners, gas cookers and blowtorches, etc., especially for those flames which look more like light than fire. Please note that a moving flame source won't trigger Fire Detector and therefore a stationary camera should be used. It is better to test and adjust the parameters according to the actual environment in order to get good performance.

### **Smoke Detector:**

Smoke Detector is designed to detect the moment when smoke occurs. Therefore, Smoke Detector won't work if the smoke has been existing for a period of time (especially in indoor environment) since it looks more like fog than smoke. As a result, Smoke Detector is more suitable for outdoor or large indoor space such as large warehouse or parking lot, etc.