

**Introduction**

**JAD Smart Sash Detector SSD-7000** is part of the **JAD Smart Series Laboratory System** used in the fume hood exhaust system. The **SSD-7000** detect the sash position and combine with **SHC-5000 Smart Hood Control** calculate the sash area opening and determine the appropriate fume hood exhaust airflow to maintain a constant face velocity. There are typically 3 types of sash detectors, namely

**Vertical Sash Detector (SSD-V)**

The vertical sash detectors use a spring return mechanism attached to a 0-10kΩ potentiometer to detect the sash height position thereby outputting a resistance reading corresponding to the sash height

**Horizontal Sash Detector (SSD-H)**

Horizontal Sash detectors are made up from a transmitter and a sensor strip, as the horizontal sash overlap, the transmitter and sensor strip also overlap thereby changing the resistor readings corresponding to the horizontal sash opening.

**Features**

- Accurate and long life cycle
- Easy to install, different length available for selection
- Vertical, Horizontal and combination sash sensing available
- Maximum up to 9 combination sashes
- SSC-0801 is able to monitor individual sash opening

**Features**

SSD detection is important in maintaining a constant face velocity. As soon as there is any changes to the sash opening, SSD had to send a signal to the SHC-5000 Smart Hood Control to compute the required airflow and command the venturi valve to react instantly and the whole process had to be less than 1 sec in order to prevent any loss of containment.

In the case of more complicated sash combination, the use of SSC-0801 controller is required. SSC-0801 has optional applications for user to set maximum area opening alarm and individual sash maximum allowable opening alarms.



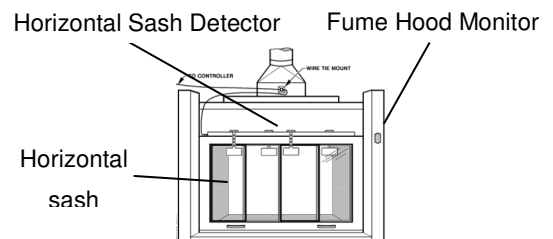
Picture 2 :  
Vertical Sash Detector



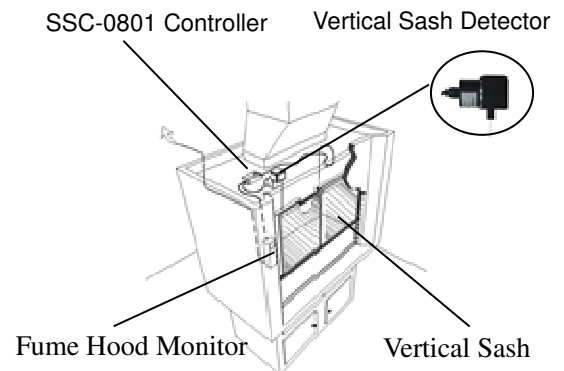
Picture 1 :  
Vertical Sash Detector

**Combination Sash Detector (SSD-C)**

Combination sash detectors are a combination of the vertical sash detector and horizontal sash detector. Both the SSD-V and SSD-H signals are captured in SSC-0801 controller for computing and outputting an overall sash opening signal to the **SHC-5000 Smart Hood Controller**



Picture 3: Horizontal Sash Installation



Picture 4: Vertical Sash Installation

