

Extending the bargraph range on Stratos-HSSD and Stratos-Quadra

This application note describes the function settings and Universal Terminal Interface board wiring necessary to extend the range of the bargraph between Pre-Alarm and Fire. This will give a very early warning of an incipient fire build up while still having a high level alarm that, for example, could be used for equipment shut down.

This application uses the remote reset input for ClassiFire override so it is not available for any of its other operations such as remote reset, remote isolate or remote day/night. In addition the Aux relay contact is used and so is unavailable as an alarm output.

Function settings

Set the Aux time delay to the Pre-Alarm time delay plus 1 second. For example if the Pre-Alarm delay is 5 seconds (the factory default) then set the Aux delay to 6.

Set the Aux bargraph level to be the Pre-Alarm level plus 1. For instance if the Pre-Alarm is set to 3 then set the Aux level to 4.

Set the Fire time delay to the Pre-Alarm delay plus 5 seconds. For example if the Pre-Alarm delay is set to 5 seconds then set the Fire delay to 10 seconds.

If 'n' is set in cascading alarms then set it to 'y' to enable cascading alarms.

Set latching alarms to 'y'.

Set ClassiFire override to the desensitisation level required e.g. 47%.

Universal Terminal Interface board wiring

Connect the Aux C terminal to the 0 Volts terminal. Connect the Aux NO terminal to the Reset input.

Description of operation

Operation is as normal when the detector sees low levels of smoke (below the Aux level). If the bargraph level rises Pre-Alarm is set to signal before Aux and to latch on. This is the early low-level alarm signal. When the Aux relay closes then ClassiFire override is set and so the Fire level is moved out by the set amount, in this case by 47%. When the detector level rises to the now very high fire level the Fire relay is activated. The following two diagrams show normal operation (Fig. 1) and ClassiFire override activated (Fig. 2).

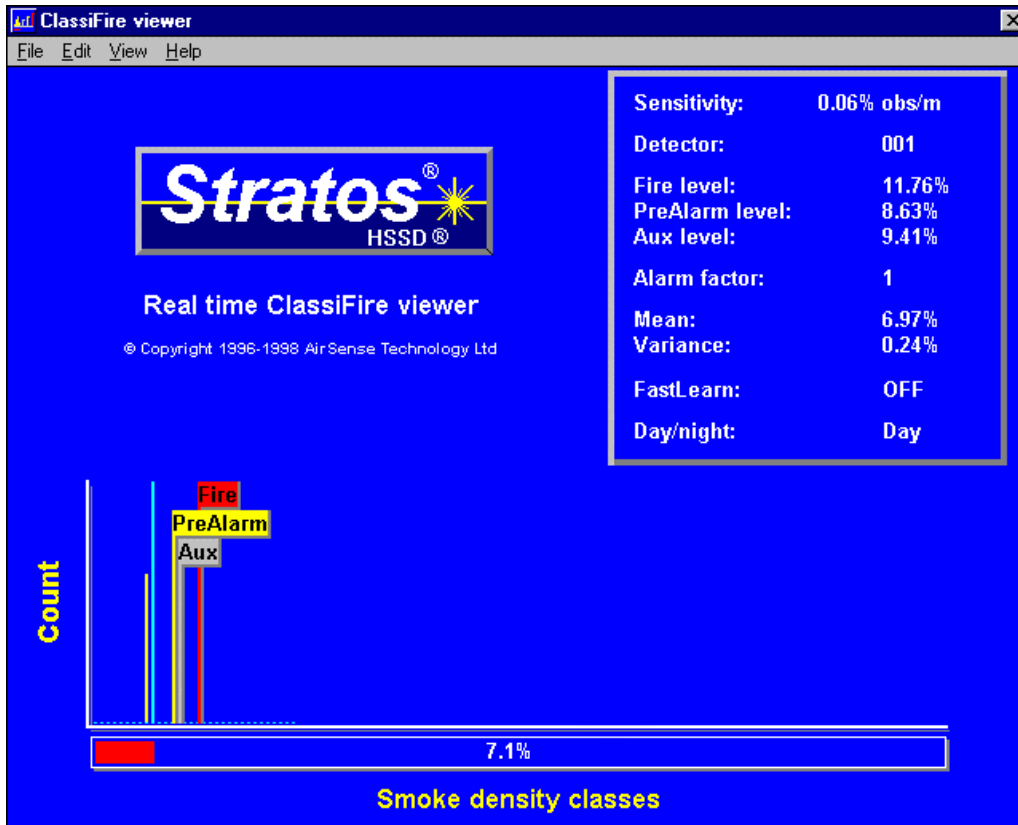


Fig 1. Normal operation of the detector, before the Aux contact closes.

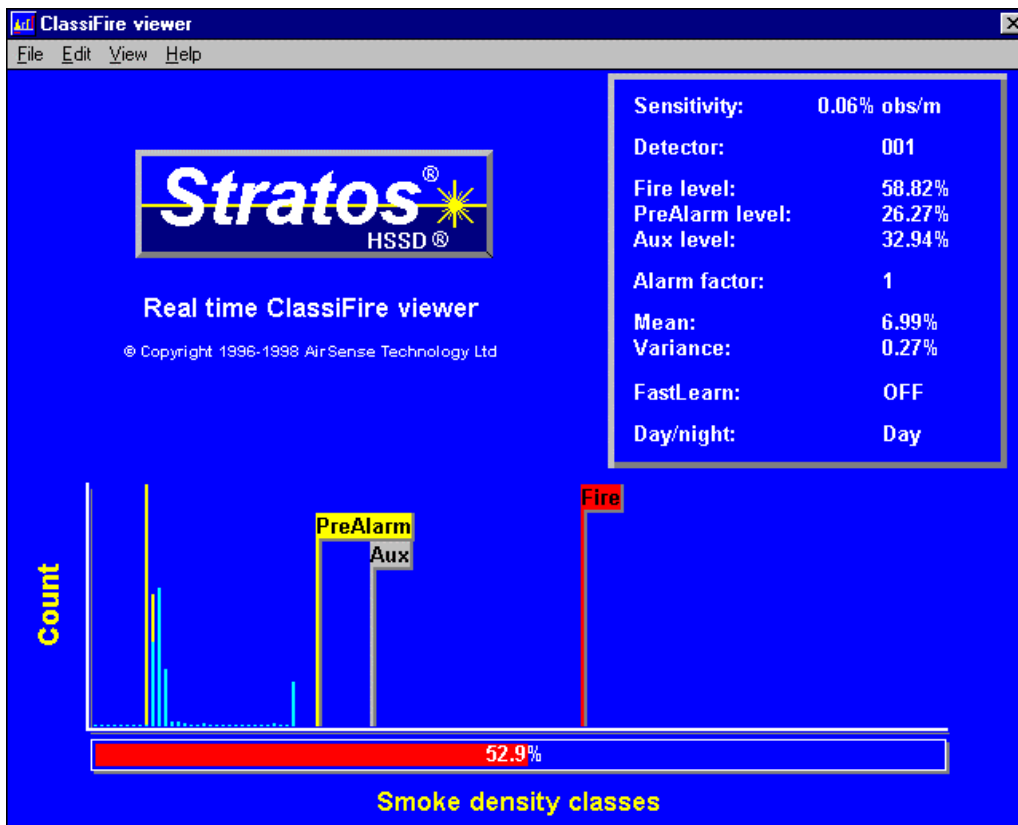


Fig.2 The Aux contact has closed, activating the ClassiFire override.