

Notifier protocol APIC

Introduction

The Stratos-HSSD 2 and Stratos-Micra range of detectors has many interfacing options ranging from conventional, using the built in Alarm and Fault relays, to addressable. A range of Addressable Protocol Interface Cards (APIC) is manufactured for these detectors that greatly simplify the amount of wiring required when connecting to an addressable loop. This application note explains how to install and configure the Notifier version of this card.

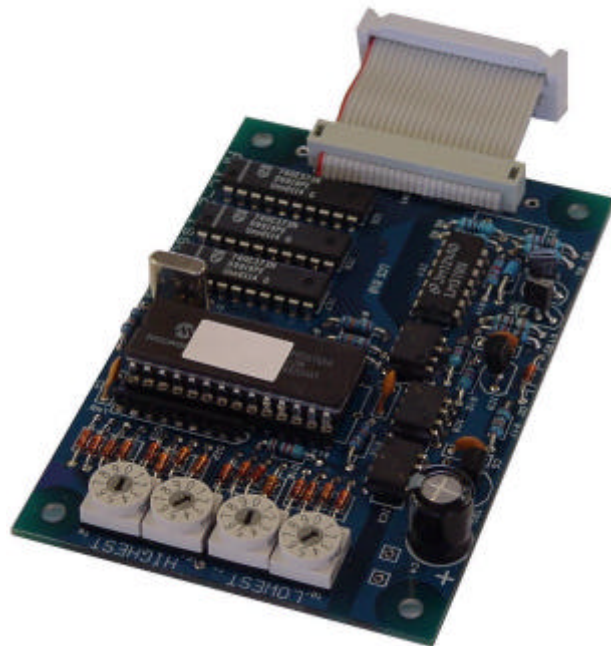
APIC cards plug into a connector on the main PCB provided for that purpose. To use the Notifier APIC all that is required is to plug the card into this connector using the ribbon cable attached to the interface, connect loop in and loop out on the terminals on the detector PCB and set the switches to the loop address.

Single address and multi address modes

The APIC has two distinct modes of operation; single address and multi address. When the interface is set to single address mode the card is set to a single address on the Notifier loop and the detector status is read from that address. Multi address mode is used when monitoring the status of multiple detectors with consecutive addresses from a single APIC card. Multi address mode is normally only used in the Command Module.

Two pairs of switches, 'Highest' and 'Lowest', on the APIC card enable the card to either respond as a single address, as it does in a detector, or a range of addresses, which is the way it is set up in the Command Module.

To set up an APIC in a detector, which only requires a single address (single address mode), set both pairs of switches to the required address on the Notifier loop. This sets the card to single address mode. The APIC pictured is set to single address mode at address 15.



When the APIC is mounted in a Command Module (multi-address mode) then 'Lowest' is set to the first loop address and 'Highest' is set to the last loop address. As an example if you have detectors 3 to 5 monitored by the Command Module then 'Lowest' is set to 3 and 'Highest' is set to 5.

Note that there is no address translation between the detector address on the SenseNET loop and the Notifier loop address; they are the same.

Interface technical details

The card models a SDX-751TEM Photo-Thermal Sensor. Due to the limits of the Notifier protocol the APIC card only supports detector addresses from 1 to 99. The card returns the following PW4 widths to indicate its status:

PW4	status
150us	Fault
800us	Normal
1400us	Aux
1800us	Pre-Alarm
2600us	Fire 1
3000us	Fire 2

Loop connections (on main PCB)

Loop in + BUSH 1
 Loop in - BUSL 1
 Loop out + BUSH 2
 Loop out - BUSL 2

Panel alarms

The fire panel will display the following alarm levels:

detector alarm level	panel alarm level
Fault	-
Normal	-
Aux	Alarm Level 1
Pre-Alarm	Alarm Level 2
Fire 1	Alarm Level 4
Fire 2	Alarm Level 5