

AIR-Intelligence™ SmartONE® Addressable Protocol Interface Card (APIC)

Effective: January 2011



FEATURES

- 2 Distinct Modes of Operation:
 - Single Address Mode
 - Multi-Address Mode
- Seamless Integration with FN2000, FN6000 and FN 8000-ML Fire Alarm Control Panels
- Easy to Install
- Up to 255 APIC Per Signaling Line Circuit (SLC)
- UL Listed
- ULC Listed

DESCRIPTION

The AIR-Intelligence™ SmartONE® APIC is an interface module designed to provide seamless integration between AIR-Intelligence detectors and fire alarm/suppression control panels using the SmartOne Signaling Line Circuit (SLC) protocol. The SmartONE APIC card reports the Aspirating Smoke Detector as an "AIM."

The SmartONE APIC has two distinct modes of operation:

- Single Address mode
- Multi-Address mode

In single address mode, the SmartONE APIC is connected directly to a detector main circuit board, using a ribbon cable.

In multi-address mode, the SmartONE APIC is connected to a command module using a ribbon cable. The command module is connected to a SenseNET loop containing multiple detectors, and the SmartONE APIC acts as the interface between all these detectors and the control panel. The SmartONE APIC senses whether it is connected to a single detector or a command module when powered up. Therefore, no changes to the SmartONE APIC are required, in order to specify the addressing mode.

Note: In either mode, any change to a detector address must be made manually to the detector or SmartONE card. The control panel can not be used to change a detector's address.

Single Address Mode

When the interface is set to single address mode, the card is set to a single address on the SLC, and the detector status is read from that address.

The 2 hex switches on the SmartONE APIC card, shown as HEX1 (second decimal place) and HEX2 (first decimal place), are used to specify the address.

In single address mode, the address can be any value between 1 and 255 (inclusive).

In single address mode, the address set on the detector

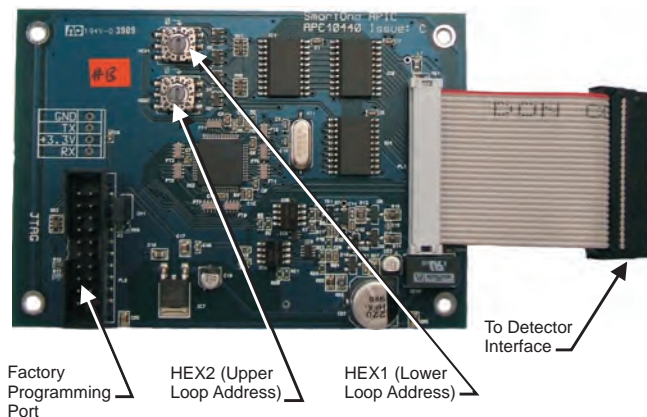


Figure 1. SmartONE APIC

card is ignored by the SmartONE APIC. The address set on the SmartONE APIC card will be the address that is used by the control panel.

Note: If AIR-Intelligence Remote 3 software is used on the detector, the address it sees will be the address set on the detector's dip switches.

Multi-Address Mode

Multi-address mode is used when using a single SmartONE APIC card to monitor the status of multiple detectors on a Command Module loop. The SmartONE APIC is mounted within the Command Module.

In multi-address mode, the hex switches on the SmartONE APIC card are not used. Instead, the address of each detector is set using the detector's dip switches. In multi-address mode, the address of each detector can be any value between 1 and 127 (inclusive).

STATUS MODES

The APIC card returns the following status modes, which are interpreted by the control unit:

- Normal
- PC Line Trouble
- Low Airflow Trouble
- High Airflow Trouble
- Detector Trouble
- Isolation Trouble
- Pre-Alarm
- Fire

SPECIFICATIONS

Input Voltage:

- 20.4 to 28.0 Vdc

Operating Current:

- 100µA

Operating Conditions:

- Temperature: - 32°F to 120°F (0°C to 49°C)
- Relative Humidity: - 0-85%

Dimensions:

- 4 in. x 2-3/4 in.(102 mm x 68 mm)

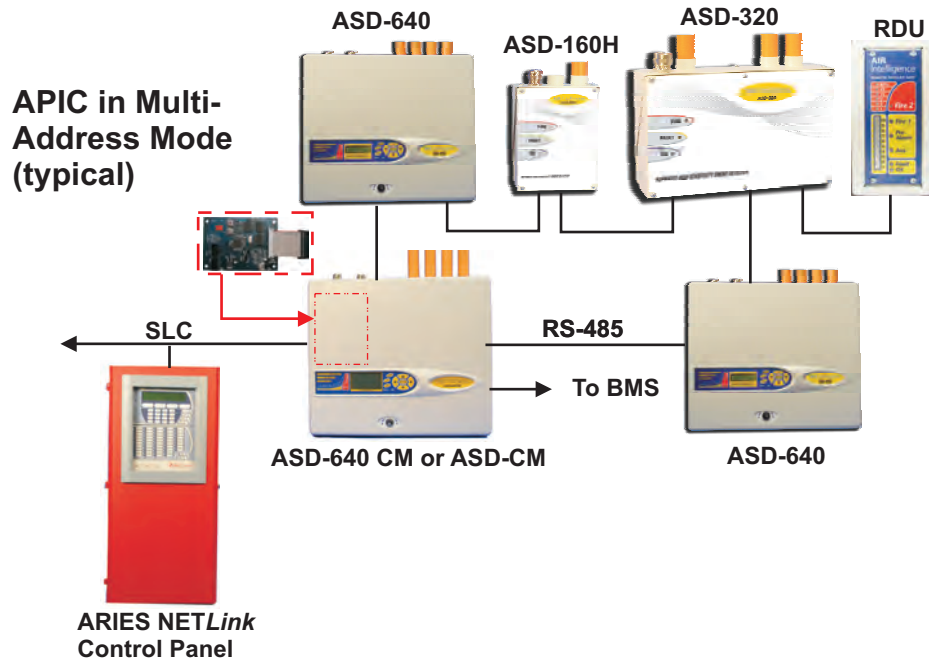


Figure 2. Fire Alarm Control Panel Interface - Multi-Address Mode

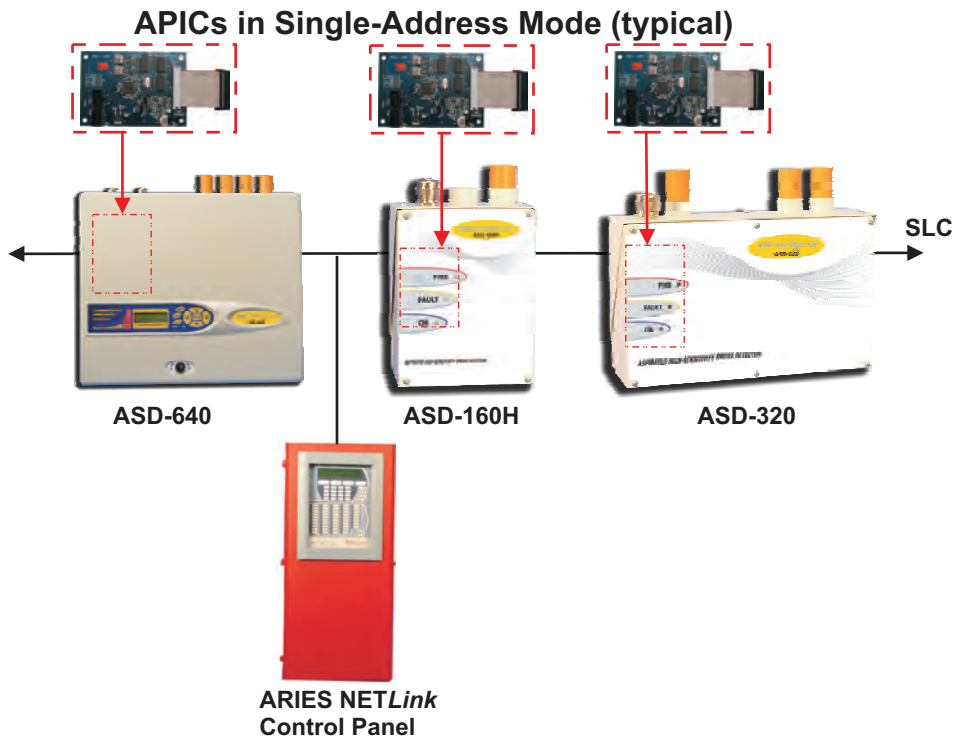


Figure 3. Fire Alarm Control Panel Interface - Single-Address Mode