Auto Pulse
Detection and Control Components

1151 Ionization Smoke Detector

Features
- Unique dual unipolar sensor
- Stable operation up to 1200 ft. per minute (6 meters per second) air velocities
- Removable cover for field cleaning
- Two visible LEDs “blink” in standby
- Sealed against dirt, insects, and back pressure
- Field metering of detector sensitivity
- Field adjustable sensitivity
- Built-in test switch
- Low standby current
- Built-in tamper-resistant feature
- Designed for direct surface or electrical box mounting
- 360° field viewing angle of the visual alarm LEDs
- Insect-resistant screening
- Easy lug-in of the head to base
- SEMS screws for easy wiring

Applications
The 1151 ionization smoke detectors are intended for use in commercial, industrial, and institutional buildings. The detectors are placed primarily in clean, indoor environments where early warning fire detection is required. The detectors are used in combination with an Ansul AUTOPULSE® Control System and an Ansul fire suppression system for automatic detection, alarm, equipment control, and fire suppression system release capabilities.

Description
The 1151 ionization smoke detector contains a unique dual source, dual unipolar chamber detection design which will sense the presence of smoke particles produced by fast combustion as well as slow smoldering fires. Additional key features include a blinking LED standby status indicator, an easily visible alarm indication and provide for convenient field test and metering.

The 1151 ionization smoke detector has two chambers: an outer sampling chamber and an inner balance chamber. Smoke or invisible combustion gases can freely penetrate the outer chamber, but the inner chamber is virtually closed to prevent easy entry. With both chambers ionized by a single radioactive source, a very small current flows in the circuit. The presence of visible smoke or invisible gases have a great influence upon the current flow in the outer chamber and will cause a change in the voltage ratio between the chambers. This difference is then amplified inside the detector and transmitted to the Ansul AUTOPULSE Control System to which it is connected. The LED indicator mounted on the detector will light steadily and any remote annunciators will activate at this time to indicate that the detector is in alarm.

Technical Information
- Stand-by Current: 40 microamps
- Sensitivity: 97 ± 47% nominal
- Weight: 0.5 lb. (277 g)
- Size: 1.7 in. High x 4.0 in. diameter (81 mm x 102 mm)
- Construction: Flame retardant white thermo plastic
- Temperature: 32 °F to 120 °F (0 °C to 49 °C)
- Humidity Range: 10-93% RH (non-condensing)
- Maximum Air Velocity: 1200 feet per minute (6 meters per second)

1151 IONIZATION SMOKE DETECTOR WITH BASE

B110LP OPTIONAL NFPA CLASS “A” WIRING

3-20.1
Mounting Guidelines

The detector bases are designed for surface mounting. The detector head can be inserted or removed from the base without disrupting the wiring connections.

All detector bases can be mounted to a 3 1/2 in. octagon, 4 in. octagon, or a 4 in. square outlet box.

Detector Base/Control Unit Compatibility

<table>
<thead>
<tr>
<th>Detector Base (Part No.)</th>
<th>AUTOPULSE 1000, 2000, 3000, 4000</th>
<th>AUTOPULSE FOUR</th>
<th>AUTOPULSE 442R, 442D</th>
<th>AUTOPULSE IQ-301 MMX-2</th>
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</thead>
<tbody>
<tr>
<td>B110LP (430025)</td>
<td>No</td>
<td>No</td>
<td>Yes</td>
<td>Yes</td>
</tr>
<tr>
<td>B401 (423026)</td>
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<td>No</td>
<td>Yes</td>
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<tr>
<td>B401B (417996)</td>
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<td>No</td>
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<tr>
<td>B401BR-750 (78997)</td>
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B110LP BASE WIRING DIAGRAM

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