System Sensor's new 2300 Series Photoelectric Smoke Detector with Electronic Heat Sensing features 12 and 24 volt operation in one unit. Model 2300T (2-Wire) and Model 2312/24T (4-Wire) are designed with pleasing aesthetics; the housing is 15% smaller than many competitive units. Thermistor technology coupled with System Sensor's patented optical chamber make this new series detector exceptionally reliable. Installation is simple and cost effective — pre-wire the harnesses and snap the detectors into place.

- One Unit Features Both 12 and 24 VDC Operation
- 2-Wire and 4-Wire Models Available
- Aesthetically Pleasing Low Profile Design
- Geometrically Optimized Photoelectric Sensing Chamber
  - Built-in Signal Processing
  - Superior Signal-to-Noise Ratio
  - 3% Nominal Sensitivity
- Thermistor Heat Sensors
- Wiring Harness for Easy Pre-wire of Units
  - Cost Effective
  - Helps Prevent Construction Damage/Theft
- Visual Alarm and Power Indicator
- Built-in Test Switch
- Field Metering of Detector Sensitivity
- Easy Maintenance — Replaceable Insect Screen
- Built-in Tamper-resistant Feature
- 3-Year Warranty

SYSTEM SENSOR™
A DIVISION OF PITTWAY

3825 Ohio Avenue • St. Charles, Illinois 60174 • 708-377-6363 • FAX: 708-377-6495
In Canada: 416-675-1695 • FAX: 416-675-7078

UL • FM APPROVED • MEA approved
General Specifications

Diameter: 5.5 inches (13.9 cm)
Height: 2.5 inches (6.4 cm)
Weight: 0.7 lb (310 gm)
Operating Temperature Range: 0° to +49°C (32° to 120°F)
Operating Humidity Range: 10% to 90% Relative Humidity
Latching Alarm: Reset by momentary power interruption.
Test Feature: Insert 0.1 inch maximum diameter allen wrench or screwdriver into test hole on detector housing.
Maximum Air Velocity: 300 Ft./Min. (15 Meters/Sec.)
Caution — Detectors subjected to continuous velocities above 300 fpm may require more frequent maintenance.
Sensitivity: 3% (+.3 / - .7)
Spacing: Install per NFPA 72E, NFPA 74, and local requirements.
Listings: UL S911; CSFM 7257-1209:142; MEA 427-91-E; FM Approved

Electrical Ratings:

**2312/24T**
System Voltage nominal:
minimum: 12 or 24 VDC
maximum: 8.5 VDC
35 VDC
Maximum Ripple Voltage: 30% of nom. (peak to peak)
Start-up Capacitance: 0.02 µF Maximum
Standby Current: 120 µA Maximum
Alarm Current: 10mA Minimum, 50mA Maximum

Reset Voltage: 0.8 VDC Minimum
Reset Time: 6 Sec. Maximum
Start-up Time: 34 Sec. Maximum
(Either 60 Sec. Reset)
EOL relay: A77-716-01 (12 volt)
A77-716-02 (24 volt)

Relay Contact Ratings (2312/24T only):
Resistive or inductive load (60% power factor):
Form A: 2.0A @ 30 VAC/DC
Form C:* 0.6A @ 110 VDC, 2.0A @ 30 VAC/DC
1.0A @ 125 VAC, 2.0A @ 30 VAC/DC
*For Canadian installations, relay contact rating is 2.0A @ 30 VAC/DC

Ordering Information

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<tr>
<th>Part No.</th>
<th>Description</th>
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<tbody>
<tr>
<td>2312/24T</td>
<td>Photoelectronic, 4-Wire, 12 or 24 VDC, Thermistors, Molex Connector</td>
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<tr>
<td>2300T</td>
<td>Photoelectronic, 2-Wire, 12 or 24 VDC, Thermistors, Molex Connector</td>
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<tr>
<td>A77-716-01</td>
<td>Relay Module, 12 VDC (24 Pack)</td>
</tr>
<tr>
<td>A77-716-02</td>
<td>Relay Module, 24 VDC (24 Pack)</td>
</tr>
<tr>
<td>MOD400R</td>
<td>Test Module for 300 and 400 Series Detectors</td>
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<tr>
<td>RS23</td>
<td>Replacement Screen for 300 Series Smoke Detectors (12 Pack)</td>
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<tr>
<td>J2300</td>
<td>Shorting Plug for 300 Series Head Removal</td>
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<tr>
<td>T2300</td>
<td>Replacement Thermistors for 300 Series (2 Pack)</td>
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<tr>
<td>P87-206-00</td>
<td>Replacement 4-Wire Molex Connector for 2312/24T</td>
</tr>
<tr>
<td>P87-206-01</td>
<td>Replacement 2-Wire Molex Connector for 2300T</td>
</tr>
<tr>
<td>IS6-490-XX</td>
<td>Installation Instructions for 2300T</td>
</tr>
<tr>
<td>IS6-431-XX</td>
<td>Installation Instructions for 2312/24T</td>
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</tbody>
</table>

WIRING DIAGRAM FOR 2300T DETECTOR

WIRING DIAGRAM FOR 2312/24T DETECTOR

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This document is not intended to be used for installation purposes.