S-31 Temperature, Humidity and Smoke Monitor quick start guide

Thank you for your purchase of OmniSense S-31 Temperature, Humidity and Smoke Monitor. Follow the steps below to install your sensor and view data readings.

1 Install your sensors

- sensor should be within wireless range of a gateway which is typically 200-300 feet
- sensors come shipped with batteries (2 x LR6 AA 1.5V Alkaline) not installed, follow smoke detector instructions to install batteries.
- optional relay connections can be made by opening the junction box. The relay provides 1/4" spade terminal connections labeled as Common (COM), Normally Open (NO) and Normally Closed (NC) contacts and will immediately fire when an alarm is triggered.

2 Web Site Alarm States

- "Normal" - indicates the smoke alarm is not alarming and the alarm has blinked its Green status LED since the last "Normal" message was sent
- "Smoke Alarm Fault" - always sent at power up or reset and is cleared when the alarm has blinked its Green status LED
- "Smoke Alarm On" - smoke alarm is on and the smoke alarm Red status LED is flashing.
- **NOTE that unlike other OmniSense system alarms the S-31 alarms must be manually reset on the web site.**

3 Sensor Operation

- sensor will periodically (every 5 minutes is typical) send a reading to any available gateway. A reading includes temperature, humidity, battery voltage and smoke alarm state.
- When the smoke detector alarms the sensor immediately tries to send a reading to any available gateway with the new "Smoke Alarm On" state. The relay contacts are also immediately opened. **Note that a wireless connection to a gateway is NOT needed for relay operation.**
- when the alarm is cleared the relay contacts are immediately closed and the new updated alarm state is sent on the next scheduled reading.

4 Testing

- Hold down the test button for approximately 2 seconds to start the self test. This will immediately send a "Smoke Alarm On" message to the web site as well as open the relay contacts. Test lasts for about 10 seconds and then the alarm is cleared and the relay contacts close. The web site should show "Normal" within 5 minutes. **Don't forget to manually reset the alarm!**

For more information contact OmniSense Technical Support
OmniSense LLC ● 72 Sams Point Road ● Ladys Island, SC 29907
Phone (805)-340-9625
www.omnisense.com ● E-mail:info@omnisense.com

5 View your sensor data

Login to your OmniSense monitoring account to view current and historical sensor data.

6 Specifications

Parameter	Min	Typ	Max	Units
Operating Temperature	-40	25	85	°C
Storage Temperature	-40		85	°C
Operating Humidity	0		100	%RH[1]
Operating Voltage	2.5		3.7	Vdc
Smoke Detector Model		SA320CN		First Alert
Battery Type		LR6/AA Alkaline		
Battery Voltage		1.5		Vdc
Battery Quantity		2		
Reporting Period		5[2]		minutes
Wireless Frequency Band	902		928	MHz
Wireless Transmit Power		10		dBm
Wireless Range		100[3]		m
Wireless Channels		64		Channels
Wireless Channel Separation		400		KHz
Relay Current Rating		16		Amps
Relay Voltage Rating		250		VAC
Relay Connections		3 x 0.25" Spade		NC or NO
Temperature Accuracy		±0.3[4]	±2	°C
Humidity Measurement Range	0		100	%RH
RH Absolute Accuracy		±2.0	±5.0	%RH
Enclosure		8 x8 x4 PVC JBOX		

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[1] Non-condensing
[2] Reports change in status immediately, reports T, RH and alarm status periodically
[3] Varies based on many factors including the presence of obstacles such as concrete walls and interference from other electronic equipment
[4] @ 25 °C

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