2012JA Photoelectric Smoke Alarm with Integral Relay and Sounder

The 2012JA is a highly reliable smoke alarm designed for residential and light commercials applications.

Features

- 12/24 VDC operation, 4-wire
- 85dB electronic horn with a temporal 3 pattern
- Form C relay contact for security panel monitoring
- Interconnectable up to 12 units
- Visual alarm and power indicator
- Ceiling white color
- Built-in 8 second delay on relay activation
- Built-in test/silence switch
- Twist-on mounting bracket with tamper option for easy installation
- Dirt-Alert feature helps prevent nuisance alarms by detecting dirt in smoke chamber
- Removable chamber for easy cleaning
- Microcontroller monitors for smoke chamber faults
- Interconnected units can provide common or zoned relay activation
- ULC listed to CAN/ULC-S531

Agency Listings

Compact, attractive, and easy to install, the System Sensor 2012JA smoke alarm is designed to respond to a broad range of fires while providing maximum stability. This model also features low-voltage wiring making it ideal for applications such as homes, apartment buildings and nursing homes.

The System Sensor 2012JA photoelectronic detector is designed for applications where low-voltage Class 2 wiring may be used. This smoke alarm is non-latching and offers an 85dB alarm horn and form C alarm contact. An external push button provides for testing of the units alarm function as well as silencing. Up to 12 units can be interconnected so that if one unit alarms, all units alarm. A form C alarm relay with an 8 second delay is included for monitoring or controlling external functions. Interconnected units can be wired so that the alarm relays activate on any alarm or individually. A visible LED indicator flashes once every 40 seconds in standby and rapidly in alarm when smoke is detected. On interconnected units, only the smoke alarm that detects smoke will flash, thus providing indentification of the alarm source. The detector offers low-voltage operation and a tamper-proof feature. Screw terminals and a mounting bracket are provided for easy installation. The 2012JA contains a microcontroller which constantly monitors the integrity of the smoke chamber and provides a trouble signal if the chamber tests fails.

2012JA Specifications

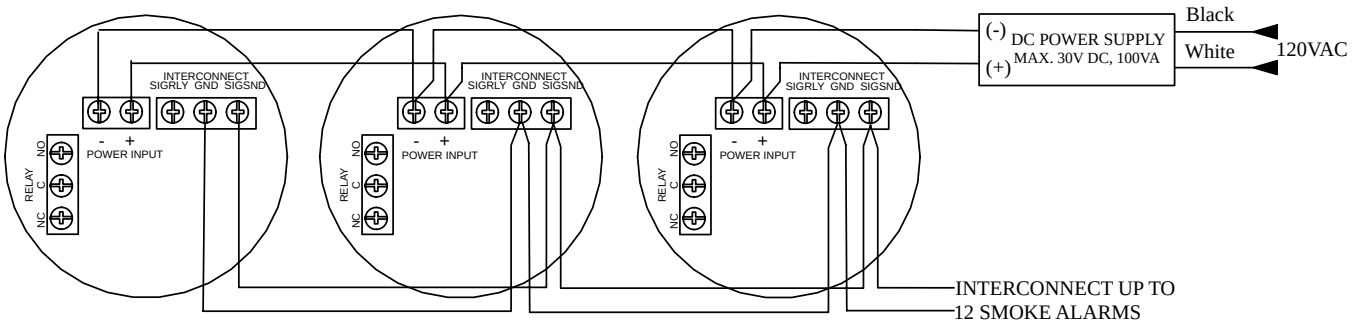
Residential Smoke Alarm Placement

As defined in NFPA72 "Smoke detectors shall be installed outside of each separate sleeping area in the immediate vicinity of the bedrooms and on each additional story of the family living unit, including basements and excluding crawlspaces and unfinished attics. In new construction, a smoke detector shall also be installed in each sleeping room". Residential smoke alarms shall produce a temporal 3 pattern at 85 dB. Refer to local building and fire codes for required installation locations for smoke detectors. Installation shall be in accordance with CAN/ULC-S553. Maintenence shall be in accordance with CAN/ULC-S552.

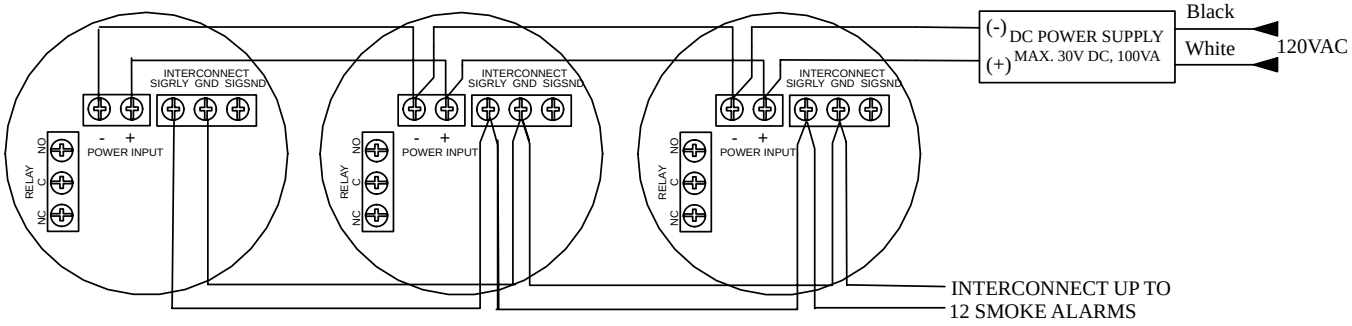
General Specifications			
Size	2.16" H x 5.3" dia (55mm H x135mm dia.)	**Weight**	6.35 oz. (180 grams)
Humidity Range	5% to 93% RH, noncondensing		
Electrical Ratings			
Operating Voltage	10 - 30VDC	**Temperature Range**	0°C to 50°C (32°F to 120°F)
Standby Current	60 µA maximum	**Relay Contact Rating**	1 Form C, 1.0 A @ 30 V (DC or AC)
Alarm Current	65 mA maximum		

2012JA Wiring Diagram

SIGSND MODE- ALL UNITS SOUND, ONLY UNIT THAT DETECTS SMOKE ACTIVATES ITS RELAY



SIGRLY MODE- ALL UNITS SOUND AND ALL RELAYS ACTIVATE



Maximum power bus length in feet, given number of units (maximum per bus) and wire gauge(AWG)
Supply Voltage = 12VDC

Wire Gauge	1 Unit	2 Units	3 Units	4 Units	5 Units	6 Units	7 Units	8 Units	9 Units	10 Units	11 Units	12 Units
14	13587	6795	4529	3397	2718	2266	1941	1699	1510	1358	1234	1134
16	8505	4254	2835	2126	1701	1419	1216	1064	945	852	772	705
18	5360	2679	1787	1339	1071	894	765	670	595	537	488	443
20	3383	1692	1127	847	677	565	483	422	376	338	308	282
22	2114	1057	705	527	422	352	301	264	236	212	191	175

For 24VDC supply voltage, the maximum power bus length is 4 times as long as 12VDC supply voltage.
Maximum interconnect bus length: 5000 FT, No. 14-22AWG cable

All wiring must conform to local electrical codes.

Ordering Information

Model	Description
2012JA	Photoelectric smoke alarm with relay, 12/24 VDC, multiple station
EOLR-1A	End of Line Relay

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