



Accessories  
Conventional Detectors  
and Modules



AV



BEAM



CO



HVAC



SPOT

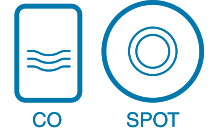


MODULES



RELAYS





# Increase your sales, RMR and customer retention...

...by protecting your customers from fire and deadly CO gas.

Did you know that there is a residential fire every 87 seconds?<sup>1</sup> That makes your customers 10 times more likely to have a fire than a burglary.<sup>2</sup> Tragically, in 2011, there were 2,520 residential fire deaths<sup>3</sup> with 40 percent in homes with no smoke detectors.<sup>4</sup> Another stunning statistic? Less than half of the smoke detectors installed in homes with fires actually operated. If these homes had system-connected, monitored smoke detectors installed, many of these tragedies may have been prevented.

Another residential danger, carbon monoxide (CO), is an odorless and invisible gas that has the potential to threaten lives in nearly every home. Each year, more than 60,000 people are accidentally poisoned by CO, making it the leading cause of airborne poisoning in the U.S.; even so, only 15 percent of homes have working CO detectors installed.

In light of the data, there is a clear need for reliable smoke and CO detection in U.S. residences. Nearly all of your customers are required to have smoke detection while more than 85 percent of states now mandate residential CO detection. As a security dealer, you are uniquely positioned to provide them with the highest levels of smoke and CO protection available while increasing your sales, RMR and customer retention.

In fact, it is now easier than ever.

The **i<sup>4</sup> Series Combination CO/Smoke Detector and Interface Module** is the first system-connected, combination solution for conventional fire and security systems. That means less wire, less labor and less devices on the wall or ceiling. And with 24/7 central station monitoring and the most reliable and accurate sensing technologies, it means the highest levels of protection available.

Look inside to learn all i<sup>4</sup> has to offer your customers...and your business.

1. NFPA's 'The US Fire Problem', (2009). Found at NFPA.org  
2. United States Fire Administration  
3. NFPA's 'Fire Loss in the United States During 2011', Michael J Carter, Jr (Sept. 2011)  
4. NFPA's 'Smoke Alarms in US Home Fires', Marty Ahrens, (Sept 2009)

# 40%

Residential fire deaths that occur with no smoke detection.

# 15%

Of homes have CO detectors installed.



## Conventional **CO** and **Smoke** together

The first low-voltage combination CO and smoke detection system for residential applications, the i<sup>4</sup> solution includes a detector and a panel interface module that enables connection of multiple detectors to a zone using only 2 or 4 wires to each detector. (The module uses more than 2 or 4 wires). The i<sup>4</sup> Module is also compatible with i<sup>3</sup> Series Smoke Detectors with thermal sensors and built-in sounders.

In the event of a smoke or CO event, all the detector sounders on the loop will be activated. This means when one device sounds, they all sound in either Temp 3 for smoke or Temp 4 for CO events. The i<sup>4</sup> Module will also send the appropriate signal to the panel, providing the homeowner with the highest levels of protection, including 24/7 central station monitoring.

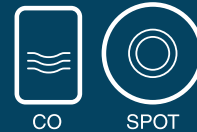
### Meet CO and Smoke **codes** and **requirements** with a single device

As a combination smoke and CO detection device, the i<sup>4</sup> detector's integral sounder produces both Temp 3 and Temp 4 patterns, sending distinct smoke and CO alerts to the panel and homeowner to meet requirements for both UL268 for Fire Protection Signaling Systems and UL2075 for Carbon Monoxide Gas Detection with a single device. It is also CSFM listed for the state of California.

The i<sup>4</sup> detector's CO sensor also includes RealTest<sup>®</sup> capability – the first functional CO test fully compliant with NFPA 720: 2009. Per the requirement, RealTest enables the functionality of the CO sensing cell to be tested using a short spray of canned CO.

UL and NFPA 720 require every system-connected CO detector to provide a means to send the sensor's end-of-life signal to the control panel. The i<sup>4</sup> detector utilizes an electrochemical CO sensing cell that has a 10 year life. Thirty days prior to end of life, the system will send a maintenance signal to the panel. The blue LED on both the detector and the module will blink, indicating a CO trouble condition. If the trouble condition is not addressed, after a period of 30 days, an intermittent chirp will notify the homeowner that there is an issue with the detector. Considering that the i<sup>4</sup> detector's CO cell is field replaceable, servicing a CO cell at end of life is now a breeze.





## i4: Delivering Value and Safety

### A safer, more attractive home

For homeowners, the i4 system provides increased peace of mind. Because the i4 is a system-connected solution, it enables 24/7 central station monitoring. In the case of a fire or CO event, the i4 system will provide residents a local alarm while sending the appropriate alert to the central station to initiate emergency response protocols. In an emergency, this provides a much higher level of protection over retail solutions, especially if residents are away from home or are unable to respond to a local alarm because they are sleeping, disabled, or overcome by the effects of smoke or CO. In addition, the i4 system is professionally installed and sends all trouble conditions (such as an end-of-life signal) to the panel and central station to help ensure proper system maintenance and operation.

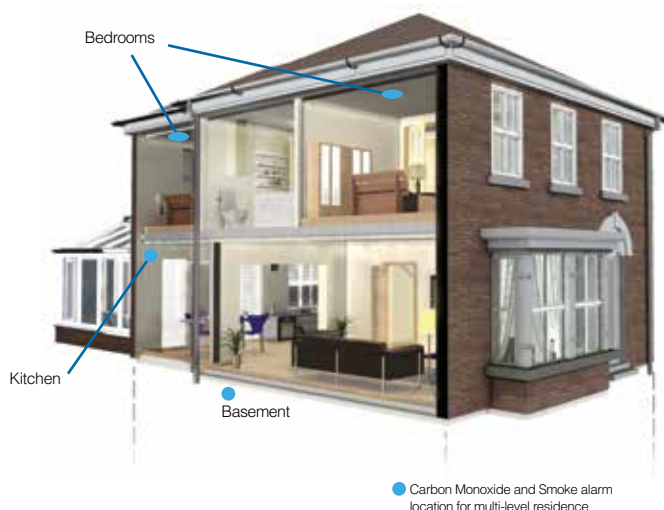
One common objection homeowners have to including system-connected fire and CO detection with their security systems is the additional wall or ceiling clutter the CO detectors have traditionally created. However, because i4 combines CO and smoke detection on a single device, it now requires no more wall or ceiling space than today's retail combination solutions while still providing the extra levels of protection made possible through system-connection. Finally, like the security system itself, many home insurers offer additional discounts when the home has smoke and CO detectors installed.

### Less materials, less labor, more profit

As the sidebar on the right shows, the i4 combination solution is a considerably more cost-effective solution for dealers and installers than the traditional separate device solution. It provides more functionality with less devices to install, less wire to purchase and pull, and provides your customers a more attractive solution with increased protection. That means you can install more systems in less time and at less cost, leading to higher recurring monthly revenue (RMR) and increased profits. In addition, customers who include fire and CO detection in their security subscriptions are more likely to continue their service, leading to higher customer retention.

## CO/Smoke Detector Placement

- On every floor
- Within 10 feet of all sleeping areas
- In any room that contains a fuel-burning appliance
- Can be mounted on the wall or ceiling



## i4 Value: Typical Installation

Our typical house example includes a basement with a fuel-burning appliance, a main level, and a second floor. Traditionally, this would require 6 smoke detectors and 3 CO detectors on 1 panel zone. Interconnection of sounders is also a requirement.

The i4 significantly reduces parts and labor required for this installation by combining the smoke and CO detectors onto a single device and using the i4 module to reduce the number of wires required to each detector from 8 (2 for smoke and 6 for CO) to just 2 wires (e.g. 2-wire installation).

**7** Total number of parts reduced in a typical installation by using the i4 Series.  
(23 parts traditional— 16 parts i4 Series)

**75%**  
Savings on the amount of wire needed.

**25-30%**  
Cost reduction over traditional installation\*.

\*Assumptions:

- Wire runs = 30 feet
- Wire = 30 cents per foot
- Labor rate = \$65 per hour



# The i<sup>4</sup> System

## i<sup>4</sup> Series Detector



The i<sup>4</sup> Series Combination CO/Smoke Detector includes a variety of features that simplify installation and maintenance while increasing the level of protection for your customers.

- Single device for CO and smoke detection that uses less wiring and fewer junction boxes
- Compatible with a wide range of control panels with the use of the required i<sup>4</sup> Interface Module
- Sends distinct smoke and CO signals to the panel
- Sounds Temp 3 for smoke and Temp 4 for CO
- Built-in 85dB sounder
- LEDs display operational, CO and smoke status
- External IR LED provides extended range smoke sensitivity testing
- Versatile mounting allows for wall or ceiling placement
- Easily replaceable electrochemical CO cell with 10 year end-of-life timer that signals the panel and chirps to alert the homeowner
- RealTest<sup>®</sup> enables functional gas testing using canned CO
- Drift compensation and smoothing algorithms provide false alarm immunity
- Compatible with SENS-RDR smoke sensitivity tester
- For product specifications visit, [www.systemsensor.com/i4](http://www.systemsensor.com/i4)

### i<sup>4</sup> Series CO/Smoke Detectors

COSMO-2W	12/24 volt, 2-wire, system-connected, combination carbon monoxide/smoke detector with RealTest technology
COSMO-4W	12/24 volt, 4-wire, system-connected, combination carbon monoxide/smoke detector with RealTest technology

### Accessories

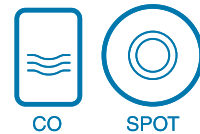
CO-REPL	Replacement CO cell for COSMO-2W and COSMO-4W models
SENS-RDR	Sensitivity reader
EOLR-1	End-of-line relay (required with 4-wire systems)



## Replaceable CO Cell



- 10 year CO cell life
- CO end-of-life timer with panel notification and chirp
- Field replaceable without tools



## i<sup>4</sup> Series Interface Module

The required i<sup>4</sup> Interface Module enables the system to send distinct CO and smoke signals over only two or four wires, greatly reducing installation time and cost.

- Easily integrates up to 12 compatible detectors to a wide range of control panels
- Sends distinct smoke and CO signals from i<sup>4</sup> detectors to the panel
- Utilizes a smoke zone and a CO zone on the panel and can be configured to send smoke maintenance to the smoke zone or an optional smoke maintenance zone
- LED indication shows when a detector on the loop requires cleaning or maintenance (2-wire detectors only)
- Initiates the EZ Walk loop test (2-wire detectors only)
- Interconnects all compatible detectors on the loop eliminating the need for the RRS-MOD
- Enables CO hush/silence capability
- For product specifications visit, [www.systemsensor.com/i4](http://www.systemsensor.com/i4)



### i<sup>4</sup> Series Interface Modules

COSMOD2W	2-wire interface module (required to use with COSMO-2W models)
COSMOD4W	4-wire interface module (required to use with COSMO-4W models)

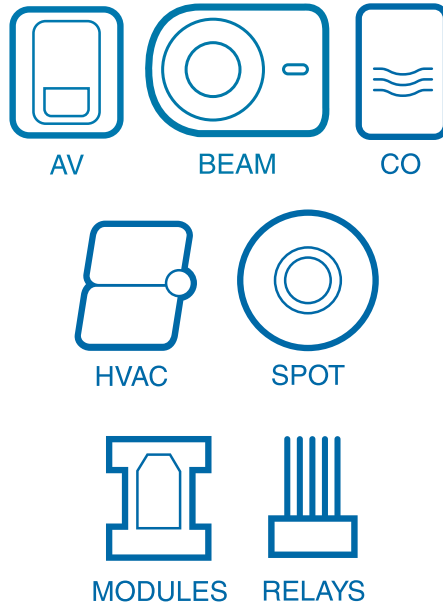


Module is compatible with **i<sup>3</sup> Series Smoke Detectors**

The i<sup>4</sup> Interface Module is compatible with System Sensor i<sup>3</sup> Series Smoke Detectors with thermal sensor and built-in sounders, allowing a CO solution to be easily retrofitted into existing i<sup>3</sup> installations while also delivering greater flexibility for new installations.

#### i<sup>3</sup> Series Smoke Detectors

2WTA-B	2-wire standard smoke detector
4WTA-B	4-wire standard smoke detector



Founded in 1984, System Sensor is a global manufacturer of fire and life safety devices, specializing in smoke detection, carbon monoxide detection, and notification technology. System Sensor develops products for real-world applications worldwide. With sales, service, and manufacturing facilities throughout the Americas, Europe, and Asia, System Sensor places a premium on research and development to provide the most reliable, innovative, and comprehensive line of products in the industry.

