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# Two-Wire Conventional Smoke Detector

## 511C



### Overview

The 511C is an economical, conventional photoelectric, direct-wire smoke detector with drift compensation.

The 511C continually monitors its own sensitivity and operational status, and provides a visual indication if it drifts out of the sensitivity range or fails internal diagnostics. Additional diagnostic information is activated by applying a magnet near the detector's integral reed switch. This initiates a self-diagnostic routine and provides visual indication of sensitivity level, or if service is required. The magnet test causes the LED to blink. The number of blink counts corresponds to a smoke detector sensitivity range. This meets NFPA 72 field sensitivity test requirements without the need for external meters.

The chance that a 511C will need maintenance is significantly decreased because of the built-in drift compensation. This feature, usually only available in analog systems, allows the detector to automatically adjust its sensitivity over time as it becomes dirty, increasing the life of the detector. And, if the 511C ever needs cleaning, it's literally a snap with the patented field replaceable optical chamber.

The 511C also features an alarm verification feature to further reduce the chance of a nuisance alarm. Normal sensing occurs every 9 seconds. This rate doubles when a signal exceeding the alarm threshold value is sensed. Two additional successive signals above the threshold level will initiate an alarm.

See installation instructions for information about correct installation and maintenance.

### Standard Features

- Self-diagnostics continually monitors detector's operation and meets NFPA 72 sensitivity test requirements
- Built-in drift compensation reduces nuisance alarms
- Field-replaceable optical chamber makes servicing a snap
- Small, low-profile design blends in with any environment
- Large SEMs type terminals speeds wiring connections while ensuring a secure connection
- Cost effective for the largest installations



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## Smoke Detector Technology

Most homes have battery operated ionization smoke detectors. These detectors react quickly to flaming fires but usually take longer to detect smoldering fires – the most common type of fire that occurs in homes. Kidde 511C smoke detectors utilize photoelectric smoke detection technology. Photoelectric smoke detectors continually analyze the air for smoke particles and are more sensitive to smoldering fires than ionization detectors. Installing both ionization and photoelectric smoke detectors in your home provides the best possible protection for you and your family.

## Specifications

Electrical	
Voltage	12/24 VDC (8.5-33 VDC), polarity sensitive
Maximum standby current	70µA
Maximum alarm current	60mA
Minimum reset time	1 sec
Environmental	
Photoelectric sensitivity	3.1%+0.5% -1%
Operating temperature	32°F to 100°F (0°C to 37.8°C)
Operating humidity	0-95% non-condensing
Physical	
Color	White
Detector dimensions	5" x 2" (12 x 5cm)
Base dimensions	4.75" x 0.3" (12.5 x 0.8cm)
Drift compensation adjustment	1%/ft. max
Field wiring size	18-12AWG
Regulations	
Listing	UL 268, CSFM
UL compatibility identifier	S10A

## Ordering Information

Model	Description	Listing
511C	Photoelectric Smoke Detector, 2-wire, 12/24VDC, white	UL268

Accessories	
SM200-12PKG	Smoke! in a Can® aerosol spray for functional testing
SM-EXT 1	Smoke! in a Can® extension tube connects directly to can
211-10PKG	Replacement optical chambers (package of 10)