

PERTRONIC INDUSTRIES LTD

DATASHEET

C Series Intelligent Addressable Smoke Detector

2251CPI-IV, 2251CPI-W



Overview

The 2251CPI **C Series** smoke detector is an improved version of the 2251BPI intelligent addressable photoelectric smoke detector.

The detector features a smoke sensing chamber designed to detect smoke and diminish stray internal reflections that can cause nuisance alarms. These features were developed to satisfy stringent nuisance alarm immunity tests defined in the US smoke detector standard, UL 268 edition 7.

The smoke level in the sensor chamber is continuously monitored and reported to the fire panel. For each individual 2251CPI detector, the alarm, fault, and maintenance thresholds are programmable in the fire panel configuration software.

A suitably configured fire panel will display the location of any detector which has triggered an alarm, fault, or maintenance signal.



C Series Intelligent Addressable Plug-In Smoke Detector 2251CPI-W with B501AUS-W base

Features

- » Intelligent addressable (IA) communication with fire panel
- » On-board drift compensation
- » Stable communication with excellent noise immunity
- » Smoke sensitivity configurable in the fire panel
- » Rotary address switches for setting the address on the intelligent addressable loop
- » Fire panel identifies active detectors by lighting up two red LEDs on the detector housing
- » LEDs briefly light up ("blink") when the detector is polled
- » LED blink may be disabled via the fire panel configuration
- » Dual LEDs for visibility from all normal viewing angles
- » Optional remote LED indicator available (note 1)
- » Magnet test function activates detector and bypasses inbuilt delays to facilitate testing
- » Compatible with B501AUS, B501AP, and other System Sensor intelligent addressable bases
- » Compatible bases provide an optional anti-tamper feature
- » SAI Global StandardsMark listed to AS 7240.7, certificate SMHK25312
- » FPANZ Listing PI/369

Specification

Operating Voltage		15 to 32 V dc
Average Standby Current		150 μ A (note 2)
Maximum Alarm Current		2 mA (LEDs on)
Remote Output Voltage		22.5 V dc, no load (minimum)
Remote Output Current		10.5 mA (note 3)
Address Range	F220, F120A	1 to 159
	F100A	1 to 99
Diameter		103 mm (in B501AUS base)
Height		51 mm (in B501AUS base) 58 mm (in B524IEFT-1 base)
Weight		95 g
Air Velocity, in Duct		up to 20.3 m/s
Operating Temperature		-10 °C to 50 °C
Humidity		10% to 93% RH non-condensing

Detector Sensitivity Levels in Pertronic Fire Panels

F220, F120A		F100A	
1	4.7 %/m		
0	6.9 %/m	1	6.9 %/m
-1	8.0 %/m	2	8.0 %/m
-2	9.5 %/m	3	9.5 %/m

Ordering Information

Product Code	Description
2251CPI-IV	IA Photo Smoke Detector, Ivory, excl Base
2251CPI-W	IA Photo Smoke Detector, White, excl Base
B501AUS-IV	IA Base, Ivory
B501AUS-W	IA Base, White

Notes

1. Please refer to the [Remote Indicators RMIND \(AU\)](#) or [Remote LED Indicator DETREM \(NZ\)](#) datasheets for details of Pertronic remote LED indicators.
2. Average standby (quiescent) current = 150 μ A with LED blink enabled and one poll every five seconds.
3. Remote output current is specified with terminal 3 shorted to terminal 1
4. Manufactured for Pertronic Industries by System Sensor.

This information must not be treated as partial or complete instructions for the design, construction, installation, commissioning, or maintenance of fire detection, fire alarm, or building evacuation systems. Fire and evacuation systems must be designed and installed by properly qualified persons, in accordance with all regulatory requirements.

Unless explicitly stated otherwise, this document provides typical specifications and nominal dimensions. Actual product performance and dimensions may vary.

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