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 µA (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
B524IEFT-1	IA Base with Isolator, Ivory

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 µA 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.