

PERTRONIC INDUSTRIES LTD

DATASHEET

C Series Analogue Addressable Heat Detectors

5251CPI-IV, 5251CPI-W, 5251CPI-BK

5251RCPI-IV, 5251RCPI-W, 5251RCPI-BK



Overview

C series analogue addressable heat detectors are available with fixed temperature alarm thresholds (5251CPI) and rate of rise alarm (5251RCPI).

The detectors measure the temperature in their surroundings and continually report this temperature measurement to the fire panel. The panel will initiate an alarm if the temperature measurement goes above the threshold defined in the panel configuration.

Rate-of-rise (ROR) heat detectors also send an alarm signal to the panel if the temperature increases rapidly. The rate of rise alarm is pre-configured in the detector.

A suitably configured fire panel will display the location of any detector which has triggered an alarm. The fire panel can also identify any active detector by lighting up two red LEDs on the detector housing.

The LEDs briefly light up ("blink") when the detector is polled. The fire panel may be configured to disable LED blink.

The detector's address on the analogue addressable loop circuit is easily configured using rotary address switches.



C Series Analogue Addressable Plug-In Heat Detector 5251CPI-W with B501AUS-W base

Features

- » Analogue addressable (AA) communication with fire panel
- » Temperature threshold configurable in the fire panel
- » Rotary address switches. Range: 1 to 159
- » Up to 159 detectors per loop (Pertronic F220)
- » Up to 99 detectors per loop (Pertronic F100A)
- » Dual LEDs for 360° visibility
- » Optional remote LED indicator available (note 1)
- » Compatible with B501AUS, B501AP, and other System Sensor analogue addressable bases
- » Compatible bases provide an optional anti-tamper feature
- » SAI Global StandardsMark listed to AS 7240.5:2018, certificate SMHK25312
- » Comply with NZS 4512:2021 s. 2.16.1

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)
Diameter	103 mm (in B501AUS base)
Height	51 mm (in B501AUS base) 58 mm (in B524IEFT-1 base)
Weight	95 g
Operating Temperature	-10 °C to 50 °C
Humidity	10% to 93% RH non-condensing

Alarm Thresholds in Pertronic Fire Panels

F100A		F220	
1	57 °C	1	53 °C
2	66 °C	0	57 °C
3	74 °C	-1	75 °C
4	84 °C	-2	83 °C

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. 5251CPI-xx and 5251RCPI-xx are designed for indoor use.
5. 5251CPI-xx and 5251RCPI-xx are compatible with Pertronic F120A systems. Use F220 sensitivity levels
6. Manufactured for Pertronic Industries by System Sensor.

Ordering Information

Product Code	Description
5251CPI-IV	AA Fixed Heat Detector, C Series, Ivory, excl Base
5251CPI-W	AA Fixed Heat Detector, C Series, White, excl Base
5251CPI-BK	AA Fixed Heat Detector, C Series, Black, excl Base
5251RCPI-IV	AA ROR Heat Detector, C Series, Ivory, excl Base
5251RCPI-W	AA ROR Heat Detector, C Series, White, excl Base
5251RCPI-BK	AA ROR Heat Detector, C Series, Black, excl Base
B501AUS-IV	AA Base, Ivory
B501AUS-W	AA Base, White
B501AUS-BK	AA Base, Black
B524IEFT-1	AA Base with Isolator, Ivory

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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