PERTRONIC INDUSTRIES LTD

DATASHEET

Analogue Addressable Heat Detectors
5251BPI, 5251RBPI, 5251B-WP, 52521RB-WP

Overview

These analogue addressable point-type heat detectors are available in two types: fixed (static) alarm threshold; or rate-of-rise (ROR) alarm threshold. There are indoor and weatherproof variants of each type.

Both rate-of-rise and fixed (static) threshold types measure the temperature in their surroundings, and continually report this temperature measurement to the fire panel. The panel will initiate an alarm condition if the temperature measurement goes above the alarm threshold, which is defined in the panel configuration.

Rate-of-rise heat detectors also signal an alarm condition to the panel if the temperature increases rapidly. The rate of rise alarm is pre-configured in the detector. The fire panel will automatically initiate an alarm condition if it receives a rate-of-rise alarm from the detector.

Heat detector addresses are easily configured during installation, allowing the fire panel to identify the exact location of the source of an alarm.

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

Analogue Addressable Indoor Heat Detector Types 5251BPI and 5251RBPI

Analogue Addressable Weatherproof Heat Detector Types 5251B-WP and 5251RB-WP

Indoor Types

Products

5251BPI

AS 7240.5:2018 Class A2 point-type heat detector with fixed temperature threshold. Available in White (5251BPI-W) and Ivory (5251BPI-IV)

5251RBPI

AS 7240.5:2018 Class A2R point-type rate of rise heat detector.

Features

- » Low standby current
- » Analogue addressable communication
- » Temperature threshold configurable in fire panel
- » Rotary decade address switches, 1 to 159
- » 159 detectors per loop (panel dependent)
- » Dual red indicating LEDs for 360° visibility
- » Remote indicator LED accessory
- » Compatible with System Sensor bases including B501AUS and B501AP series
- » Independently tested and ActivFire listed to AS 7240.5:2018. Certificates afp-3385 (5251BPI types) and afp-3386 (5251RBPI types)
- » Meet the requirements of NZS 4512:2021 s. 2.16.1
- » FPANZ listing PI/254, PI/255

Weatherproof Types

Products

5251B-WP

AS 7240.5:2004 Class A2 point-type heat detector with fixed temperature threshold and IP67 rating

5251RB-WP

AS 7240.5:2004 Type A2R point-type rate of rise heat detector with IP67 rating

Features

- » Low standby current
- » Analogue addressable communication
- » Temperature threshold configurable in fire panel
- » Loop address configurable with CP500 programmer
- » 159 detectors per loop (panel dependent)
- » Dual red indicating LEDs for 360° visibility
- » Remote indicator LED accessory
- » IP 67 rating
- » Lead length 300 mm
- » Supplied complete with special mounting base
- » Independently tested and SAI Global Standards-Mark certified to AS ISO 7240.5:2004
- » Meet the requirements of NZS 4512:2021 s. 2.16.1
- » FPANZ listing PI/247, PI/252

Specification

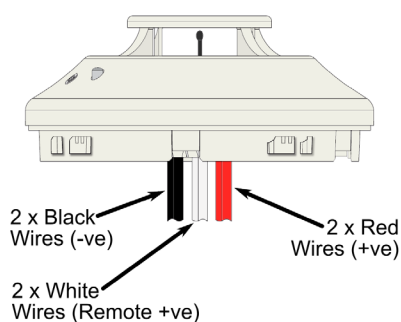| Operating Voltage		15 to 32 Vdc
Standby Current (note 1)		197 µA @ 24 Vdc
Alarm Current (Red LEDs on)		6.5 mA @ 24 Vdc
Remote Output Voltage (Indoor types only)		22 V dc, @ 24 V dc supply voltage
Remote Output Current (Indoor types only) (note 2)		9.9 mA minimum @ 24 V dc
Isolator Load Rating (note 3)		0.0063
Dimensions (diameter x height)	Indoor	102 x 51 mm (in B501AUS base) 102 x 58 mm (in B524IEFT-1 base)
	Weatherproof	102 x 51 mm (in B501A base)
Weight	Indoor	83 g (excluding base)
	Weatherproof	170 g (inlcuding base_
Operating Temperature		-10 °C to +50 °C
Humidity		10 % to 93 % RH, non-condensing

Notes

1. Typical maximum standby (quiescent) current with LED blink enabled, and one poll every five seconds, is 300 µA

2. Remote output current is specified with terminal 3 shorted to terminal 1. Please refer to the Remote Indicators (AU) or *Pertronic Remote LED Indicator* (NZ) datasheets for details of remote LED indicators.

3. The sum of the Isolator Load Ratings of all devices attached to a single isolator must not exceed 1.0

5251 Series Sensitivity Levels in Pertronic Fire Panels

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

Connections: Weatherproof Types

2 x Black Wires (-ve)
2 x Red Wires (+ve)
2 x White Wires (Remote +ve)

CP 500 Programmer for Weatherproof Types

Ordering Information

Product Code	Description	Product Code	
5251BPI-IV	AA Heat Detector, Ivory	B501AUS-IV	AA Base, Ivory
5251BPI-W	AA Heat Detector, White	B501AUS-W	AA Base, White
5251RBPI	AA ROR Heat Detector, Ivory		
5251B-WP	AA Weatherproof Heat Detector Including Special Base	B524IEFT-1	AA Base with Isolator, Ivory
5251RB-WP	AA ROR Weatherproof Heat Detector Incl. Special Base	CP500	Handheld Programmer for AA Weatherproof Detectors

Note: 5251 series detectors are compatible with Pertronic F120A systems. Use F220 sensitivity levels.

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 information provides typical specifications and nominal dimensions. Actual product performance and dimensions may vary.

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