



PAD100-HD

HEAT DETECTOR



P/N 97668

Features

- Selectable Rate of Rise and/or Fixed Heat Detector
- Low profile
- Reliable detection technology
- LED Alarm Indicator
- Ambient temperature listing of 32° F to 150° F
- Simple DIP switch address setting, no programming tool required
- UUKL Listed for Smoke Control

Specifications

Operating Voltage: 24 VDC
 Detector Current Draw: 300 µA
 Alarm indicator: 1 LED
 Alarm set-point range: 135 to 185 °F/ 57 to 85 °C
 Installation temperature range: 32 to 150°F (0 to 85°C)
 Operating relative humidity range: 0% to 93% (Non-condensing)
 Start-up time: Max. 1 sec.
 Maximum number of addresses per loop: 127
 Maximum number of lighted indicators in alarm per loop: 30
 Color: Eggshell White
 Weight (no base): 82g (2.89 oz)
 Height (no base): 1.94 in (49 mm)
 Diameter (no base): 3.93 inches (100 mm)

Description

The PAD100-HD is a listed Analog Addressable rate of rise and/or fixed temperature heat sensor compatible with any fire alarm control panel that has the Potter Addressable Device (PAD) protocol. The heat sensing portion utilizes a proven thermistor for accurate and reliable heat detection. The sensor and base (not included) are made of a durable plastic in an off white to blend in with the ceiling.

The PAD100-HD is UL listed with a selectable fixed temperature point from 135° to 185° Fahrenheit and can be used for rate of rise applications. See detector spacing limitations below. This flexibility allows the installer to cover a wide variety of applications with a single unit.

The PAD100-HD and the control panel communicate over a proven and robust digital communication path and the system analyzes the information at the particular device. The total polling speed is less than five (5) seconds, well under the UL requirements.

The sensor is compatible with any of the PAD series sensor bases and simply twists on. The PAD100-HD is addressed using DIP switches in the rear of the sensor and can be easily programmed in the field without special tools.

Setting the Address

Each addressable device on the SLC loop must have a unique address from 1 to 127 to function properly. The address is set using DIP switches.

Before connecting a device to the SLC loop, take the following precautions to prevent potential damage to SLC or device. Verify the following:

1. Power to the device is removed
2. Field wiring is correctly installed.
3. Field wiring has no open or short circuits.



Operation

The PAD100-HD is an analog addressable sensor that uses one address on the Signaling Line Circuit (SLC) of a compatible fire alarm control panel. The unit communicates with the control panel as it is polled. The LED flashes every time the unit is polled and will flash at a fast rate if the unit is in an active status. The polling LED can be turned off if desired for less conspicuous operation.

The PAD100-HD with the PAD100-4DB or PAD100-6DB has a low profile to blend into the surrounding environment. The system has a maximum of 30 LEDs that can be turned on simultaneously. If the system already has 30 LEDs on, the PAD100-HD will operate even though the LED will not illuminate.

Spacing

The ANSI/UL listed spacing limitations of PAD100-HD smooth ceiling are dependent on alarm set point.

Alarm Set-Point	Rate of Rise Spacing	Fixed Temperature Spacing
135°F to 160°F (57°C to 71°C)	Max. 70 ft.	Max. 70 ft.
161°F to 174°F (72°C to 79°C)	Max. 60 ft.	Max. 60 ft.
175°F to 185°F (80°C to 85°C)	Max. 15 ft.	Max. 15 ft.

Ordering Information		
Model Number	Description	P/N
PAD100-HD	Fixed Temperature Heat Sensor	97668
PAD100-6DB	6" Addressable Detector Base	97671
PAD100-4DB	4" Addressable Detector Base	97672
PAD100-IB	6" base with an isolator module included	97673
PAD100-RB	6" base with one Form-C relay contact. 2A @ 30VDC, 0.5A @ 125VAC	97675
PAD100-SB	6" base with sounder module included. Sound pattern is provided from external source	97674

Note: Approvals/Listings maintained by and manufactured by Potter Electric Signal Company.

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