

## Features

- Photoelectric Smoke Detection compliant with UL 268 7th Edition
- Carbon Monoxide (CO) detection compliant with UL 2075
- 10 year Carbon Monoxide detection lifespan with built in end of life indication
- Walk Test mode allows for fast easy validation of CO sensor operation
- Low profile, less than 2 inches with the base
- Wide selectable sensitivity range of 1.1 to 3.5%/foot
- Detector communicates sensitivity to control panel
- Optional locking tab to prevent unwanted removal
- Simple DIP switch address setting, no programming tool required
- LED Alarm Indicator
- Product includes 5-year warranty
- UUKL Listed for Smoke Control
- Magnetic Test Switch



## Description

The Photoelectric Smoke detector and the Carbon Monoxide (CO) detector are both listed Analog Addressable detectors compatible with fire alarm control panels that utilize the Potter Addressable Device (PAD) protocol.

The CO sensing portion utilizes a proven electrochemical sensor for accurate detection of CO gas for life safety applications. The photoelectric detector complies with UL 268 7th edition enhanced smoke sensitivity tests. It has a wide sensitivity range of 1.1 to 3.5% per foot, and features drift compensation with built in dirty detector warning.

The detector 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 detector is compatible with any of the PAD300 series detector bases and simply twists on. The PAD300-PCD is addressed using DIP switches in the rear of the detector 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.

## Technical Specifications

Voltage Range	24 VDC
Standby Current	300 $\mu$ A
Alarm Set-point Range	1.1 to 3.5%/ft (3.6 to 11%/m)
Alarm indicator Current	1.4 mA
CO Alarm Rating	70 ppm, 150 ppm, 400 ppm
Installation Temperature Range	32°F to 100°F (0°C to 38°C)
Operating Humidity Range	< 93% (Non-condensing)
Dimensions	3.93 in (100 mm)
Weight	92 g (3.25 oz)
Height	1.42 in (36 mm)

## Air Velocity Rating

The PAD300-PCD has an Open Area of Protection air velocity rating of 0 to 300 feet per minute.

The system has a maximum of 30 LEDs that can be turned on simultaneously. If the system already has 30 LEDs on, the PAD300-PCD will operate even though the LED may not illuminate.

## Operation

The PAD300-PCD is an analog addressable detector 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 they 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 PAD300-PCD with the PAD300-4DB or PAD300-6DB has a low profile of less than two (2) inches to blend into the surrounding environment.

## Detector Sensitivity

The PAD300-PCD and the compatible control panel work in tandem to keep the sensitivity consistent. As the detector is installed over time, the detector compensates for the dirt in the unit until it is out of range. At that time, the panel will indicate a dirty detector. The detector will then have to be cleaned or replaced.

The PAD300-PCD can be programmed to provide a maintenance alert prior to reaching the dirty detector level which will allow for intervention prior to the detector going into trouble. This allows for detector replacement or cleaning prior to a nuisance trouble occurs.

The PAD300-PCD will provide CO alarm reports at 70 ppm, 150 ppm, and 400 ppm.

**Note:** As required by NFPA, do not install the detectors until all construction is complete and the work area has been thoroughly cleaned. If the detectors have been installed in a construction environment, they should be cleaned or replaced before the system is placed into service.

## Compatible Bases

All bases will mount on a single gang, 3-1/2" octagon, 3-1/2" square, double gang, 4" octagon, 4" square, 50mm c/c, 60mm c/c and 70mm c/c boxes.

Device	Description	Stock No.
PAD300-4DB	4" Detector Base	3992781
PAD300-6DB	6" Detector Base	3992782
PAD300-IB	6" base with an isolator module included	3992783
PAD300-RB	6" base with one Form-C relay contact. 2A @ 30VDC, 0.5A @ 125VAC	3992784
PAD300-SB	6" base with sounder module included. Sound pattern is provided from external source	3992785
PAD300-LFSB	6" base with 520Hz sounder module included. Sound pattern is provided from external source	3992786

## Ordering Information

Model	Description	Stock No.
PAD300-PCD	Photoelectric Smoke/CO Detector	3992779