

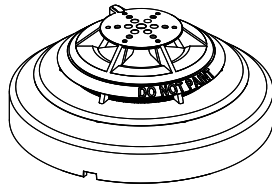
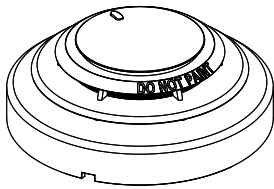


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PAD300-PD

PAD300-PHD



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**A. Introduction**

The PAD300-PD is an intelligent addressable photoelectric smoke detector. The PAD300-PHD shares the same features as the PAD300-PD and includes a thermal sensor. The photo and heat sensors on the PAD300-PHD work independently and generate a separate signal to the panel.

Each detector includes one (1) LED to indicate the device status. The LED flashes momentarily in normal conditions and flashes at a fast rate when activated. The LED can be turned off using the programming software.

The PAD300-PD and PAD300-PHD have a maximum spacing limitation of 30ft. Place the detector as close to the center of the ceiling as possible. It may be wall mounted within 12 inches from the ceiling. To minimize false alarms, avoid placing in areas where excessive dust, humidity, air movement, or extreme temperature is present. Refer to NFPA 72 for more details regarding spacing, placement and special applications.

The PAD300-PD and PAD300-PHD communicate on a proprietary protocol to the addressable fire alarm control panel. Each detector must be connected to either the IPA series, AFC series, or ARC fire alarm control panel for proper operation. For detector sensitivity settings and supervision, please refer to the panel installation instructions.

Refer to the company website for the latest revision of this manual.

**B. Specifications**

PAD300-PD	
<b>Operating Voltage</b>	24 VDC
<b>Standby Current (*)</b>	300 $\mu$ A
<b>Alarm Indicator Current</b>	1.4 mA
<b>Sensitivity Range</b>	1.1 to 3.5%/ft
<b>Installation Temp Range</b>	32°F to 120°F
<b>Operating Humidity Range</b>	0% - 93% (Non-condensing)
<b>Dimension</b>	$\Phi$ 3.93 in
<b>Weight</b>	3.20 oz
<b>Height</b>	1.42 in

\*Standby current is the current the device consumes when the device is in a non-activated condition and where no communication current is transmitted to the fire alarm control panel.

PAD300-PHD	
<b>Operating Voltage</b>	24 VDC
<b>Standby Current (*)</b>	300 $\mu$ A
<b>Alarm Indicator Current</b>	1.4 mA
<b>Sensitivity Range</b>	1.1 to 3.5%/ft
<b>Fixed Alarm Temperature</b>	135°F
<b>RoR Detection</b>	15°F/min
<b>Installation Temp Range</b>	32°F to 115°F
<b>Operating Humidity Range</b>	0% - 93% (Non-condensing)
<b>Dimension</b>	$\Phi$ 3.93 in
<b>Weight</b>	3.25 oz
<b>Height</b>	1.70 in

**C. Installation**

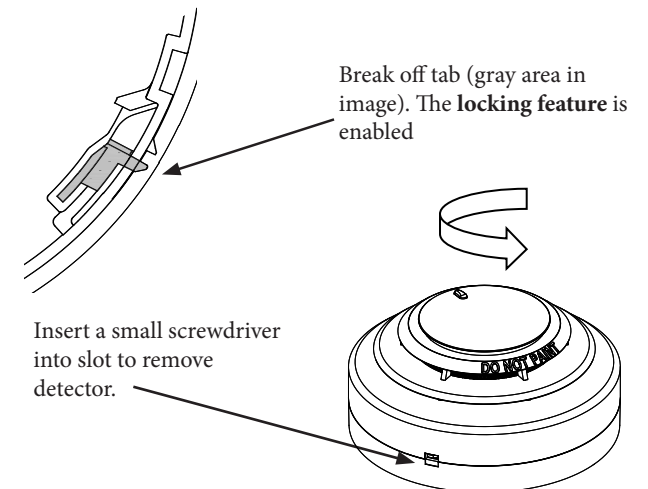
Installation must meet the requirements of the Authority Having Jurisdiction (AHJ). It is recommended to follow guidelines as described in the National Fire Protection Association NFPA 72.

- Before connecting a device to the SLC loop, take the following precautions to prevent potential damage to the SLC or device.
  - Use only the PAD300 series bases PAD300-4DB, PAD300-6DB, PAD300-SB and PAD300-LFSB (supplied separately).
  - Confirm the field wiring on device is correctly installed on the base. Refer to the base manual.
  - Enable the locking feature if needed. Refer to section D for details of the locking feature.
- Set the desired address using the DIP switch located on back of the sensor. See section E for addressing instructions.
- Plug detector into base and turn clockwise to secure in place.

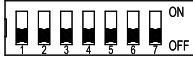
**CAUTION** KEEP DUST COVER ON DETECTOR DURING CONSTRUCTION. REMOVE DUST COVER TO ALLOW THE DETECTOR TO DETECT SMOKE AND HEAT. DETECTORS ARE NOT TO BE USED WITH DETECTOR GUARDS UNLESS THE COMBINATION HAS BEEN EVALUATED AND FOUND SUITABLE FOR THAT PURPOSE.

**D. Locking Feature**

The device includes a tamperproof feature that locks the detector and does not allow removal without the use of a tool.



## E. Addressing



Detector address can be configured using the table below for DIP switch position settings.

POS	DIP Switch on	POS	DIP Switch on	POS	DIP Switch on
1	1	43	1,2,4,6	85	1,3,5,7
2	2	44	3,4,6	86	2,4,5,7
3	1,2	45	1,3,4,6	87	1,2,3,5,7
4	3	46	2,3,4,6	88	4,5,8
5	1,3	47	1,2,3,4,6	89	1,4,5,7
6	2,3	48	5,6	90	2,4,5,7
7	1,2,3	49	1,5,6	91	1,2,4,5,7
8	4	50	2,5,6	92	3,4,5,7
9	1,4	51	1,2,5,6	93	1,3,4,5,7
10	2,4	52	3,5,6	94	2,3,4,5,7
11	1,2,4	53	1,3,5,6	95	1,2,3,4,5,7
12	3,4	54	2,3,5,6	96	6,7
13	1,3,4	55	1,2,3,5,6	97	1,6,7
14	2,3,4	56	4,5,6	98	2,6,7
15	1,2,3,4	57	1,4,5,6	99	1,2,6,7
16	5	58	2,4,5,6	100	3,6,7
17	1,5	59	1,2,4,5,6	101	1,3,6,7
18	2,5	60	3,4,5,6	102	2,3,6,7
19	1,2,5	61	1,3,4,5,6	103	1,2,3,6,7
20	3,5	62	2,3,5,5,6	104	4,6,7
21	1,3,5	63	1,2,3,4,5,6	105	1,4,6,7
22	2,3,5	64	7	106	2,4,6,7
23	1,2,3,5	65	1,7	107	1,2,4,6,7
24	4,5	66	2,7	108	3,4,6,7
25	1,4,5	67	1,2,7	109	1,3,4,6,7
26	2,4,5	68	3,7	110	2,3,4,6,7
27	1,2,4,5	69	1,3,7	111	1,2,3,4,6,7
28	3,4,5	70	2,3,7	112	5,6,7
29	1,3,4,5	71	1,2,3,7	113	1,5,6,7
30	2,3,4,5	72	4,7	114	2,5,6,7
31	1,2,3,4,5	73	1,2,4,7	115	1,2,5,6,7
32	6	74	3,4,7	116	3,5,6,7
33	1,6	75	1,3,4,7	117	1,3,5,6,7
34	2,6	76	2,3,4,7	118	2,3,5,6,7
35	1,2,6	77	1,3,4,7	119	1,2,3,5,6,7
36	3,6	78	2,3,4,7	120	4,5,6,7
37	1,3,6	79	1,2,3,4,7	121	1,4,5,6,7
38	2,3,6	80	5,7	122	2,4,5,6,7
39	1,2,3,6	81	1,5,7	123	1,2,4,5,6,7
40	4,6	82	2,5,7	124	3,4,5,6,7
41	1,4,6	83	1,2,5,7	125	1,3,4,5,6,7
42	2,4,6	84	3,5,7	126	2,3,4,5,6,7
				127	1,2,3,4,5,6,7

## F. Testing

Testing must meet the requirements of the Authority Having Jurisdiction (AHJ). It is recommended to follow guidelines as described in NFPA 72.

It is important to test the product after installation and periodically to ensure it functions properly.

**CAUTION** NOTIFY APPROPRIATE AUTHORITY BEFORE TESTING THE SENSOR. PLACE FIRE PANEL IN WALK TEST MODE BEFORE CONDUCTING THE FOLLOWING TEST. REFER TO THE PANEL INSTALLATION MANUAL FOR DETAILS.

### Smoke Aerosol Test

Use a canned aerosol to spray directly to the side of the detector. SmokeCheck 25S from HSI Fire and Smoke Centurion from SDI are acceptable. Please contact local fire and safety equipment distributors to see which products are available. Units failing the aerosol test should be immediately cleaned. If cleaning cannot restore the unit to normal, it should be replaced.

### Heat Test

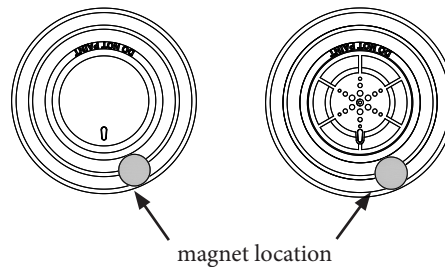
Use hair dryer or heat gun to direct the heat toward the side of the detector. Keep at a distance of 6 in or 15 cm to avoid overheating.

Units failing the heat test should be serviced.

### Magnet Test

The magnet test provides a quick test to verify the connections and the detector electronically. This test should not replace the aerosol test, which is required as part of regular testing and maintenance per NFPA 72.

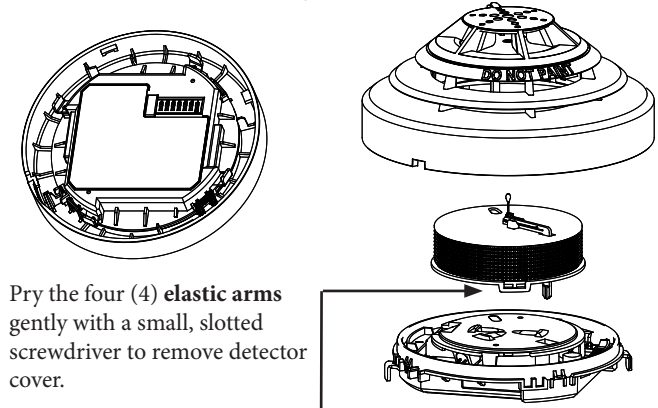
1. Hold the test magnet in the magnet test area as shown below



2. The LED flashes rapidly to indicate the detector is in alarm.
3. Remove magnet.
4. Alarm on the fire alarm panel should be reset.
5. If the unit fails the magnet test, test the unit with an aerosol testing spray to confirm any failures.

## G. Cleaning

NOTE: Before cleaning, notify the proper authorities that the system is undergoing maintenance. Disable the loop or system undergoing maintenance to prevent unwanted alarms. It is recommended that the detector be removed from its mounting base for easier cleaning and that the detector be cleaned at least once a year. Use a vacuum cleaner to remove dust from the sensing chamber



Pry the four (4) **elastic arms** gently with a small, slotted screwdriver to remove detector cover.

Pry the **elastic arm** gently with a small, slotted screwdriver to remove cage for cleaning.

## H. Warranty

POTTER warrants that the equipment herein shall conform to said descriptions as to all affirmation of fact and shall be free from defects of manufacture, labeling, and packaging for a period of five (5) years from the invoice date to the original purchaser, provided that representative samples are returned to POTTER for inspection. The product warranty period is stated on the exterior of the product package. Upon a determination by POTTER that a product is not as warranted, POTTER shall, at its exclusive option, replace or repair said defective product or parts thereof at its own expense, except that Purchaser shall pay all shipping, insurance, and similar charges incurred in connection with the replacement of the defective product or parts thereof. This Warranty is void in the case of abuse, misuse, abnormal usage, faulty installation, or repair by unauthorized persons, or if for any other reason POTTER determines that said product is not operating properly as a result of causes other than defective manufacture, labeling, or packaging.