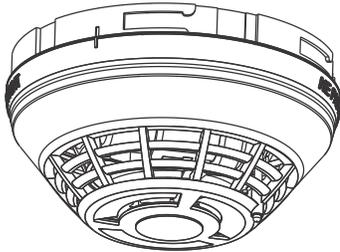


KIR-PD Intelligent Photoelectric Smoke Detector Installation Sheet



Description

The model KIR-PD Intelligent Photoelectric Smoke Detector is an intelligent device that uses an optical sensing chamber to detect smoke. The detector analyzes data from the sensing chamber to determine whether to initiate an alarm.

LED indicator. The LED indicator (see Figure 2) displays the following states:

- Normal: Green LED indicator flashes, no action.
- Alarm/active: Red LED indicator flashes, evacuate the area.

Installation

Notes

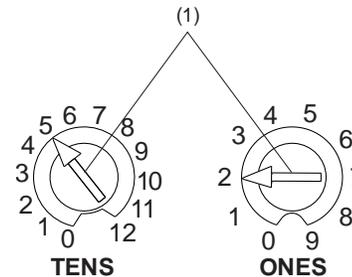
- This detector does not operate without electrical power. As fires frequently cause power interruption, discuss further safeguards with the local fire protection specialist.
- This detector does not sense fires in areas where smoke cannot reach the detector. Smoke from fires in walls, roofs, or on the opposite side of closed doors may not reach the detector.
- Photoelectric detectors have a wide range of fire-sensing capabilities and are best suited for detecting slow, smoldering fires.
- To ensure proper operation, store the detector within the recommended ranges. Allow the detector to stabilize to room temperature before applying power.
- The dust cover (supplied) must remain on the detector during installation and be removed prior to commissioning and service. The dust cover is not a substitute for removing the detector during new construction or heavy remodeling.
- Do not use smoke detectors with detector guards unless the combination has been evaluated and found suitable.
- Install and wire this device in accordance with applicable national and local codes, ordinances, and regulations.
- In Canada, install according to CAN/ULC-S524 *Standard for the Installation of Fire Alarm Systems*, CSA C22.1 *Canadian Electrical Code*, and the local authority having jurisdiction.

- Upon completion of the original installation and following any modifications or additions to the system, perform a calibrated sensitivity test per NFPA code. The Kidde Intelligent devices can perform this test at the panel which can then generate a system sensitivity report.
- Refer to Kidde Intelligent Detector Application Bulletin (P/N 3102534-EN) for additional information on detector placement and spacing.

To install the device:

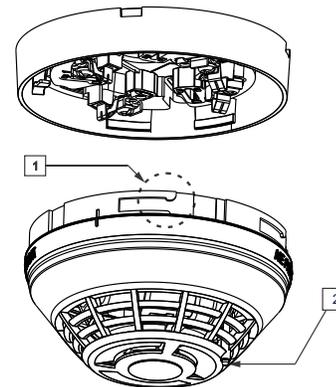
1. Install and wire the base, as described on the installation sheet supplied with the base.
2. Set the detector address. Refer to the panel technical reference manual for a list of valid addresses. Use a screwdriver to adjust the two rotary switches on the back of the detector. (See Figure 1.) Set the left rotary switch (0 through 12) for the 10s and 100s digit and the right rotary switch for the 0 through 9 digit.
3. Attach the detector to the base by rotating the detector clockwise until it snaps into the locked position.

Figure 1: Setting detector address (address 52 shown)



(1) Insert a screwdriver here to set the address

Figure 2: KIR-PD features



- (1) Self-locking tab
- (2) LED indicator

Testing

Before testing, notify the proper authorities that the fire alarm system is undergoing maintenance and will be temporarily out of service.

To perform an initial installation test:

1. Remove the detector from its base and verify that the proper detector address, trouble signals, and messages are reported.
2. For KIR-PD detectors placed in the air ducts, verify that the airflow is within specifications. See "Specifications" on page 2.

3. If wired for Class A operation, verify that the detector continues to operate first with SLC_IN disconnected, reconnect SLC_IN and then with SLC_OUT disconnected. (Refer to the installation sheet for the base.)
4. Place a momentary ground fault on the SLC circuit to verify operation of ground fault detection circuitry.
5. Run a system detector maintenance report on all detectors and verify that the readings fall within acceptable limits.
6. Perform a sensor function test, as described below.

To perform a sensor function test:

1. If desired, use the fire alarm control panel to put the detector or zone into a service group for testing. (Refer to the panel technical reference manual for instructions.)
2. Activate the smoke sensor using No Climb Products model Smoke Centurion/M8, FireTech Smoke or Smoke Sabre smoke aerosol spray, a smoke generator, or the Testifire detector tester per the manufacturer's instructions.

Maintenance

To ensure proper operation, plan maintenance (regular or selected) of the detector in accordance with the AHJ and all applicable governing laws, codes, or standards. Refer to CAN/ULC-S536 *Standard for the Inspection and Testing of Fire Alarm Systems* and NFPA 72 *National Fire Alarm and Signaling Code*.

Refer to application bulletin P/N 3102534-EN for additional information and cleaning instructions.

Specifications

| | |
|--------------------------------------|--|
| Operating voltage | 15.20 to 19.95 VDC |
| Current | |
| Normal operating | 51 µA |
| Alarm | 68 µA |
| Vibration level | 10 to 35 Hz, with an amplitude of 0.01 in. |
| Air velocity [1] | 0 to 4,000 ft./min (0 to 20.32 m/s) |
| Wall mounting: distance from ceiling | 12 in. (305 mm) max. |
| Compatible bases | |
| Standard | KI-SB, KI-SB4 |
| Relay | KI-RB, KI-RB4 |
| Isolator | KI-IB, KI-IB4 |
| Audible | KI-ABST, KI-ABDT, KI-ABLT |
| Compatible detector testers | Testifire 1000, Testifire 2000 |
| Operating environment | |
| Temperature | 32 to 120°F (0 to 49°C) |
| Relative humidity | 0 to 93% noncondensing |
| Storage temperature | -4 to 140°F (-20 to 60°C) |
| Environmental compensation | Automatic |

[1] For duct installation, use a K-DMP duct detector mounting plate and install per P/N 3102482-EN.

Regulatory information

| | |
|--------------------------------|---|
| North American standards | CAN/ULC-S529, UL 268, UL 268A |
| UL/ULC smoke sensitivity range | 0.53 to 3.94 %/ft. (1.7 to 12.35 %/m) obscuration |
| FCC compliance | This device complies with part 15 of the FCC Rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation. |
| Industry Canada compliance | This Class A digital apparatus complies with Canadian ICES-003. |

Contact information

For contact information, see www.kiddelifesafety.com.