DC-PS
Conventional Photoelectric Smoke Detectors

Kidde Fire Systems

Effective: November 2018

DC-PS **K-70-900**

STANDARD FEATURES

- ***UL Listed***
- ***FM Approved***
- ***Computer-Designed Non-Directional Photoelectric Smoke Chamber***
- ***360 Degree View of Detector Status LED***
- ***Low Profile, 2-in. High (with Base)***
- ***2 or 4 Wire Bases Available***
- ***Highly Stable Operation, RF/Transient Protection***
- ***Low Standby Current: 59μA at 24 VDC***
- ***One Built-In Power/Sensitivity Supervision/Alarm LED***
- ***Automatic Sensitivity Window Verification Function Meets Outlined Requirements in NFPA 72, Chapter 2 and Chapter 7, Inspection, Testing and Maintenance***
- ***Compatible with most Kidde®, Fenwal® and Chemetron® Conventional Control Panels (See compatibility chart in Datasheet No. K-70-200)***

DESCRIPTION

The Kidde DC-PS detector is a reliable, high quality Photoelectric Smoke Detector which can be used in all open areas where Photoelectric Smoke Detectors are required. The computer-designed smoke chamber makes the DC-PS detector well-suited for detecting smoldering fires as well as fast-flaming fires.

OPERATION

The Kidde DC-PS Photoelectric Smoke Detector utilizes one bi-colored LED for indication of status. In a normal standby condition, the LED flashes green every 3 seconds. When the detector senses that its sensitivity has drifted outside the UL listed sensitivity window, the LED will flash red every 3 seconds. When the detector senses smoke and goes into Alarm, the status LED will latch on red.

The detector utilizes an infrared LED light source and silicon photodiode receiving element in the smoke chamber. In a normal standby condition, the receiving element receives no light from the pulsing LED light source. In the event of a fire, smoke enters the detector smoke chamber and light is reflected from the smoke particles to the receiving element. The light received is then converted into an electronic signal.

Fire judgment signals are processed and compared to a reference level and, when five consecutive signals exceeding the reference level are received within a specified period of time, the time delay circuit triggers the SCR switch to activate the Alarm signal. The built-in status LED lights continuously during the Alarm period.

AVAILABLE BASES

Use the DC-SB6 base for two-wire applications or the DC-SB6-4W base for four-wire applications.

SENSITIVITY TEST FEATURE

The detectors have a built-in automatic sensitivity test feature: In normal condition, the status LED flashes green. When the sensitivity drifts, the status LED flashes red. In the Alarm state, the status LED is red continuously. When the sensitivity drifts outside of its sensitivity limits and the LED flashes red, the device needs to be cleaned or returned to the factory for cleaning or calibration.

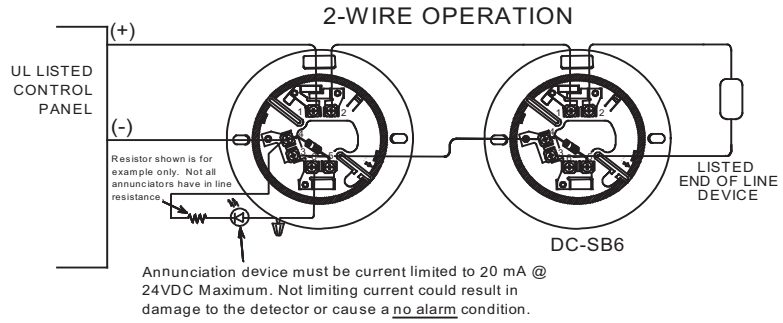
SPECIFICATIONS

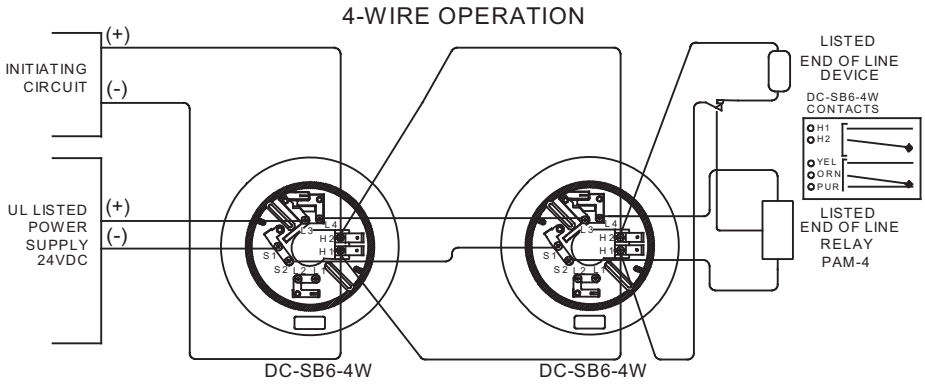
Light Source	GaAlAs Infrared Emitting Diode
Nominal Rated Voltage	24 VDC
Working Voltage	8 - 35.0 VDC
Maximum Voltage	42 VDC
Supervisory Current	59 µA @ 24 VDC
Surge Current	160 µA max. @ 24 VDC
Alarm Current	150 µA max. @ 24 VDC
Air Velocity Range	0 - 4000 fpm
Maximum Humidity	95% RH Non-Condensing
UL Listed Temperature	32°F to 100°F (0°C to 37.8°C)
Color & Case Material	Bone PC/ABS Blend
Sensitivity Test Feature	Automatic Sensitivity window verification test

ORDERING INFORMATION

DC-PS	Photoelectric Conventional Smoke Detector, head only. Includes magnet initiated test feature.
DC-SB6	Conventional 2-Wire Base for DC Series Detectors, 6-in. diameter (supports remote LED Alarm Indicator)
DC-SB6-4W	Conventional 4-Wire Base for DC Series Detectors, 6-in. diameter
PAM-4	EOLR 12/24 Power Supervision Module, 9 - 40 VDC (for 4-wire applications)
70-200000-911	Model RA-911 Remote Alarm Indicator (for 2-wire detectors only)
06-117883-001	Detector Test Magnet

DIAGRAMS





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