VES FIRE DETECTION SYSTEMS

VF2015-00 | Analog Photoelectric Smoke Detector

Standard Features

- UL 268 7th Edition Listed
- Designed to resist unwanted alarms from cooking and other nuisance alarm sources
- Optical particulate identification
- Early fire smoke detection
- 360° view of detector status LED
- Vandal resistant security locking feature

Application

The VF2015-00 (UL 268 7th edition listed) is a reliable, high quality multi-criteria Photoelectric Smoke Detector. It can be used in all open areas where Photoelectric Smoke Detectors are required. This detector is also suitable for monitoring smoke in HVAC ducts. The newly developed "multi-spectrum smoke categorization technology" detects smoldering and flaming fires fueled by traditional materials and polyurethane while reducing nuisance alarms. The VF7013-00, VF7014-00, VF7015-00, VF7016-00, VF7017-00, and VF7018-00 bases are UL Listed with the VF2015-00.

Operation

The construction of the new chamber enhances the smoke entry for early fire smoke detection. The detection chamber utilizes light from IR and Blue LED sources. In the event of fire, particles of smoke enter the chamber and scatter light in proportion to the smoke density, resulting in an increased analog smoke measurement. The chamber contains a unique baffle design which allows smoke to enter the chamber while preventing external light from affecting the photo diode detector.

When the smoke density exceeds the programmed sensitivity threshold, the detector transmits an interrupt to the fire alarm control panel indicating a fire condition. The fire alarm control panel automatically adjusts the detector threshold to compensate for contamination.

Up to 127 detectors are permitted on each SLC loop. The detector can mount to a variety of bases including electronics-free 4- and 6-inch bases, and sounder bases. The detector's status LED is viewable on the main face of the detector from all directions.

Detector Spacing

Smoke detector spacing shall be in compliance with NFPA 72. For smooth ceilings and in the absence of specific performance-based design criteria, the distance between smoke detectors shall not exceed a nominal spacing of 30 ft. (9.1m) or all points on the ceiling shall have a detector within a distance equal to or less than 0.7 times the nominal 30 ft. (9.1m) spacing. Detectors shall be located within a distance of one-half the nominal spacing, measured at right angles from all walls or partitions extending upward to within the top 15 percent of the ceiling height. For additional instructions see NFPA 72.

FM PENDING

UL CERTIFIED SAFETY SIGNALING US S6661

VF2015-00 Intelligent Multi-Criteria Photoelectric Smoke Detector

Supply Voltage	Operating Voltage Range (High Signal)	24 - 41 VDC
	Signal Voltage (Peak to Peak)[1]	7 - 9 VDC
Current Consumption	Normal Standby Current	340μA
	Alarm Current (LED Off)[2]	340μA
	Alarm Current (LED On)[2]	8.5mA
	Remote Indicator Current[3]	9.2mA
	Polling Current[4]	6.75mA
Smoke Density Range	1.40 – 3.30%/ft @0 - 300 FPM Open Area	
	1.40 – 2.75%/ft @300 FPM In Duct	
	1.40 – 4.00%/ft @1000 FPM In Duct	
	1.40 – 4.00%/ft @2000 FPM In Duct	
	1.40 – 2.37%/ft @3000 FPM In Duct	
	1.40 – 4.00%/ft @4000 FPM In Duct	
Compatible Bases Operating	VF7013-00,VF7014-00,VF7015-00,VF7016-00,VF7017-00,VF7018-00	
Temperature Range	32°F ~ 120°F	
UL Listed Ambient Temperature	32°F ~ 120°F	
Storage Temperature Range	-22F ~ +140F (104F or less at 95%RH, 140F or less at 80%RH)	
Operating Humidity Limit	<95%RH at 104F, <80%RH at 120F	
Dimension	3.94" diameter x 1.68" tall	
Color	(VF2015-00) Ivory, (VF2015-00(WHT)) White	
Weight	3.4 oz.	

Notes

1. Measured during FACP transmission. 17V Minimum Voltage (Operating Voltage less Signal Voltage).

2. When the total number of active alarm LEDs is limited by the FACP, additional detectors in Alarm will consume the Alarm Current (LED Off) current.

3. RI is current limited by the detector not to exceed 9.2mA. Actual RI current is equal to the load current for loads less than 9.2mA.

4. Polling Current should be added to sum-total Normal Standby Current for each SLC loop. Voltage drop calculations do not need to include Polling Current.