



- Low Profile - Only 1.8" High
- 2 or 4 Wire Models
- Eggshell or White
- UL and ULC Listed, CSFM Approved
- Highly Stable Operation, RF/Transient Protection
- Two built-in power/sensitivity supervision/alarm LED's
- Non-Directional Smoke Chamber
- Vandal Resistant Security Locking Feature
- Built-in magnetic go/no go detector test feature
- Removable smoke labyrinth for cleaning or replacement
- Automatic Sensitivity window verification function meets outlined requirements in NFPA 72, Inspection, Testing and Maintenance.

Application

The Potter Electric BPS Series can be used in all areas where Photoelectric Smoke Detectors are required. It is suited for smoldering or flaming fires. The BPS-W are ideal for security installations.

Operation

The BPS Series photoelectric smoke detector utilizes two bicolored LEDs for indication of status. In a normal standby condition the LEDs flash Green every 3 seconds. When the detector senses that its sensitivity has drifted outside the UL listed sensitivity window the LEDs will flash Red every 3 seconds. When the detector senses smoke and goes into alarm the status LEDs will latch on Red.

The unit is comprised of an LED light source and silicon photo diode receiving element. In a normal standby condition, the receiving element receives no light from pulsing light source. In the event of fire, smoke enters the detector and light is reflected from the smoke particles to the receiving element. The light received is converted to an electronic signal.

Signals are processed in the comparator, and when two consecutive signals exceeding the basic level are received within a specific period of time, the time delay circuit triggers the SCR switch to activate the alarm signal. The Status LED lights continuously during alarm period.

Ordering Information

Model	Stock number
BPS-2	1430006
BPS-4	1430007
BPS-2W	1430026 White
BPS-4W	1430029 White

Specification

Light Source	GaAl AS Infrared LED
Voltage	Nominal: 12 VDC or 24 VDC Working: 8.0 - 35.0 VDC (35.0 VDC Max)
Wave Form	Filtered DC 15% Ripple Max.
Alarm Current	150mA Maximum
Surge Current	200uA Maximum (2 wire)
Average Standby Current	38uA AVG @12 VDC 55uA AVG @24 VDC 70uA AVG @35 VDC
Ambient Temperature	32°F - 120°F (0°C - 49°C)
Sensitivity Test Feature	Automatic Sensitivity Window Verification Test
Compatibility Identifier	HD-6
Order Codes	2-Wire Detector & Trim Ring Bone: BPS-2 White: BPS-2W 4-Wire Detector & Trim Ring Bone: BPS-4 White: BPS-4W

Engineering Specifications

The contractor shall furnish and install where indicated on the plans Potter Electric BPS Series baseless photoelectric smoke detectors. The detector head shall be UL listed compatible with an UL listed fire alarm panel.

The smoke detector shall have flashing status LED for visual supervision. When the detector is actuated, the flashing LED will latch on steady at full brilliance. The detector may be reset by actuating the control panel reset switch. The detector shall have a sensitivity window verification feature.

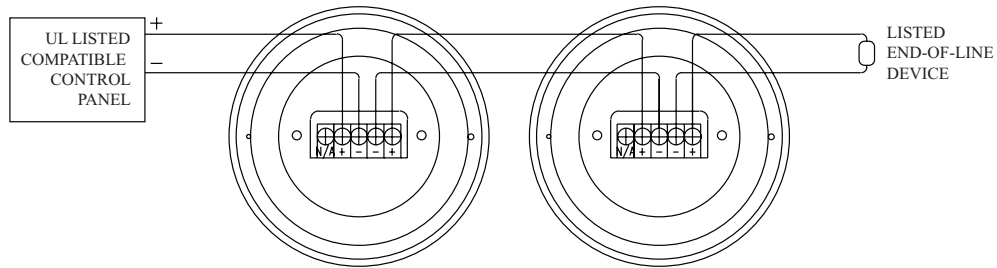
The vandal resistant, security locking feature shall be used in those areas as indicated on the drawing. The locking feature shall be field selectable.

It shall be possible to perform a functional test of the detector without the need of generating smoke. The method shall simulate effects of products of combustion in the chamber to ensure testing of detector circuits.

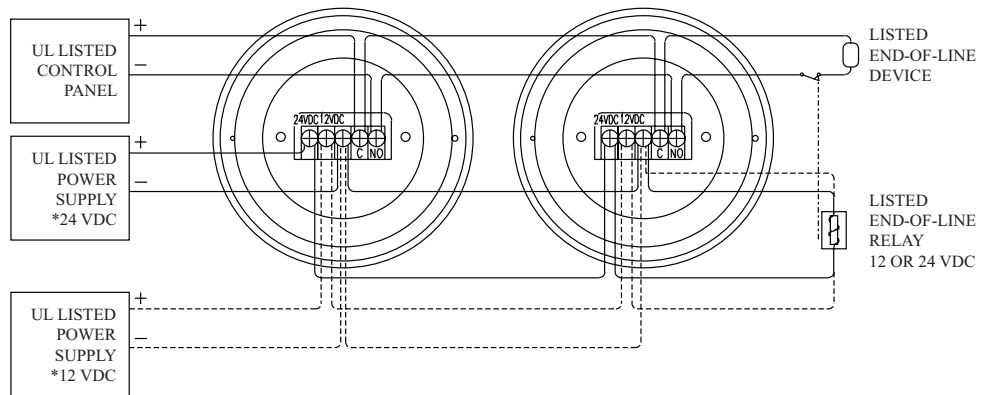
Voltage and RF transient suppression techniques shall be employed to minimize false alarm potential.

Wiring Diagrams

2-Wire Wiring Diagram



4-Wire Wiring Diagram



* USE EITHER 12 VDC OR 24 VDC. THEY CANNOT BE USED SIMULTANEOUSLY.