



Photoelectric Smoke Detector

AVAILABLE FROM
NEPEAN ELECTRONICS



NEPEAN Power is a proven leader in the supply and manufacture of quality engineered solutions, products and technologies. Established in 1994, through the commitment of our dedicated team we have become a supplier of choice.

The NEPEAN Power Photoelectric smoke detector is capable of detecting smoke by utilising infrared diodes housed in a specialised optical sensing chamber. It is designed to provide open-area protection, and to be used with a conventional fire alarm panel. The detector has an automatic reset function.

Two LEDs on each detector provide local 360 degree visible alarm indication and flash every six seconds to indicate power is on and detector is functioning. LEDs latch on in an alarm state and will sound when sensitivity is outside limits i.e. smoke is detected.

The principle of detection results from granules in the smoke which reflect infrared light. When there is no smoke present, the diode receives a very weak infrared light. Upon the smoke entering the chamber, the diodes change in status allowing the detector to emit an alarm signal once the smoke reaches a certain density.

NEPEAN Advantage

- SMT design, high stability
- Wide operating voltage range
- Low standby current
- Power supply non-polarised input
- Flashing LED power indicator
- Alarm relay N.C./N.O. optional (4 Wire)

Ordering Information

Part Number	Description
AW-CSD381-4W	4 Wire Smoke Detector 9-60V DC

Specifications

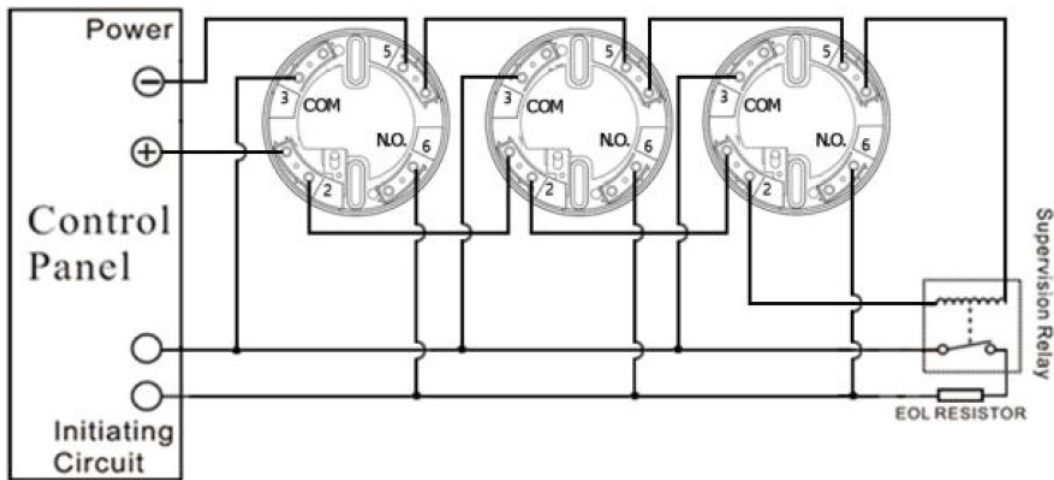
Product	4 Wire
Operating Voltage Range	9 - 60VDC Colts Non-polarised
Standby Current	<120uA @24VDC NO <12mA @24VD NC
Maximum Alarm Current (LED on) (Relay contact: 0.5A @30VDC)	<20mA @24VDC NO <5mA @24VD NC
Surge Current	160uA
Permissible Current	40mA
Alarm Induction	Red LED on
Operating Humidity Range	<95% RH (40°C ± 2°C) Relative Humidity, Non- Condensing
Operating Temperature Range	-10°C ~ 50°C (14°F ~ 122°F)
Smoke Alarm Sensitivity	0.18 - 0.3dB/m
Standard	EN54-7, UL268
Dimensions	99.8mm diameter x 48.2mm deep

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Features

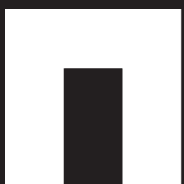
- The detector should not be installed in extreme environments e.g., extreme heat or cold and dusty conditions.
- Ensure there are no objects within 0.5m of detector.
- Keep the distance between detector and wall more than 0.5m.
- Ensure the distance between detectors remain less than 15 meters; the length between the detector and a corner wall must be less than 7.5 meters.
- The detector should be installed horizontally. If required to be installed on an angle, the angle is to be less than 45 degrees.
- Base is to be solidly mounted; wire connections must be sound.
- Inspections and testing should be carried out at a period of 6-month intervals i.e., simulate a fire test to ensure units are working properly.
- The product may not perform to appropriate specifications if affected by environmental changes, electrical disruptions, or general product tampering.

4 Wire Base Terminal Diagram



3. Relay Output (COM)
2. Power (+) Input

5. Power (-) Input
6. Relay Output (N.C./N.O.)



NEPEAN
Power

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