

# PHOTOELECTRIC SMOKE DETECTOR D-233

Model D-233-2



Model D-233-2H

with heat detector



## DESCRIPTION

DEMCO Photoelectric Smoke Detector **D-233** with its new sensor design incorporates an internal pulsing LED and a photo-diode at an obtuse angle, is ideal for applications where slow-burning or smouldering fires are likely.

The **D-233** has an advanced solid-state, low-voltage, surface-mount circuitry and are designed for 2-Wire installation using the D32003 universal base. The detector head is installed into the base with a simple twist-lock action.

The 360-degree detector design permits smoke entry from any direction, and a unique sensing chamber that permits operation in open areas with air velocities from 0 to 300 fpm.

A fine wire mesh extending between offset ports in the exterior and interior walls screens insects from the chamber and obstructs light from passing directly to the interior part.

## DEMCO ADVANTAGES

- Certification/Listing-UL and CE.
- Advanced detection and discrimination algorithms.
- Advanced solid-state, low-voltage, surface-mount circuitry.
- Suitable for the majority of application conditions.
- Easy installation, testing and maintenance.
- Sleek low-profile housing design.
- Flashing LED in standby mode.
- Robust and reliable sensor head.
- Two red LEDs to allow 360-degree viewing.
- A fine mesh insect screen protects the chamber area i.e. to avoid potential nuisance alarms.
- Optional/integrated heat detector for D233-2H and D233-2HL models.

## UNIVERSAL BASE

The D32003 and D34003 universal bases are designed for the D-133 and D-233 series of detectors. Both are electronics-free bases with 2 and 4 contact points respectively. Their simple and robust design allow detectors to be plugged in without any need for force – particularly useful when installing onto suspended ceiling. Being designed as a common base, both units allow detector interchange within the series.



Shown with 2 contact points (D32003).

Shown with 4 contact points (D34003) for a remote LED indicator.

## SPECIFICATIONS/OPTIONAL FEATURES

Model	Heat Sensor Setting	Voltage DC (Max./Min.)	Standby Current (Max.)	Alarm Current (12/24V)	Surge Current (Max.)	Start-Up Time (Max.)	Permissible Current (Max.)	Cycle Time	Base Model No.	Safety
D-233-2	-	10.8~33V	80µA	22/55mA	160µA	30 Sec.	80mA	1-5 Sec.	D32003	UL/CE
D-233-2L	-	10.8~33V	80µA	22/55mA	160µA	30 Sec.	80mA	1-5 Sec.	D34003	UL/CE
D-233-2H	135±5°F	10.8~33V	80µA	22/55mA	160µA	30 Sec.	80mA	1-5 Sec.	D32003	UL/CE
D-233-2HL	135±5°F	10.8~33V	80µA	22/55mA	160µA	30 Sec.	80mA	1-5 Sec.	D34003	UL/CE

Remarks: **L** = Remote LED indicator output. 4.0Vdc minimum / **H** = Heat detector

Smoke Sensitivity	0.98–2.40%FT Obscuration (UL) ; 0.08–0.14 dB/m (EN)
Ceiling Spacing	50-foot rating for heat detector
Temperature Range	-10°C to 50°C
Humidity	0 to 95% RH, no condensation or icing
Dimensions (H x D)	46 X 100mm with base
Weight	130g/set with base

Specifications are subject to change without prior notice.

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