

#### FEATURES:

- Detects and limits the spread of smoke throughout building HVAC ducts
- Compatible with building Automation and Fire Alarm systems
- Installs quickly and easily
- No screens or filters to clean
- Rugged gray steel back box with clear cover
- Accessories: Remote LED alarm indication capability (model FWC-FSLC-DUCTRA only)
- Meets UL268A requirements

#### DESCRIPTION:

The **FWC-FSLC-DUCT** is designed and built to meet all local requirements, as well as NFPA regulations regarding duct smoke detectors. The FWC-FSLC-DUCTRA is provided with output terminals for remote accessories such as a remote status indicator and reset key switches or push buttons. Air sampling is accomplished by two tubes that protrude into the duct. An exhaust tube of one standard length (7.5") is supplied in the installation kit with the smoke duct unit. Once the duct width has been determined, the air intake sampling tubes must be ordered. Sampling tubes are supplied in three standard lengths (2.5ft., 5ft. and 10ft.) and cut to size to fit the duct. Mounting the duct smoke detector unit is accomplished by the use of a template and 4 sheet metal screws, provided. Mounting can be achieved **without** the removal of the clear cover (secured by 4 capture screws).

The compact FWC-FSLC-DUCTRA contains two sets of form "C" contacts rated at 10A.

The pilot and alarm visual indicators, provided on the front of the FWC-FSLC-DUCTRA, signal the operating status of the device. A manual Test / Reset switch is located along side the visual indicators.

#### APPLICATION:

The Napco FWC-FSLC-DUCT analog duct smoke detector provides early detection of smoke and products of

## Addressable Photo Duct Smoke Detector FWC-FSLC-DUCT FWC-FSLC-DUCTRA



#### LISTINGS:

- UL268A: Smoke Detectors for Duct Application
- NFPA 72 National Fire Alarm Code
- CSFM: California State Fire Marshall

combustion present in air moving through HVAC ducts in Commercial, Industrial and Residential applications. The FWC-FSLC-DUCT is designed to prevent the recirculation of smoke by the air handling systems, fans and blowers. Complete systems may be shut down in the event of smoke detection. The Napco FWC-FSLC-DUCT and the FWC-FSLC-DUCTRA operate on the SLC-powered loop (24VDC source required for FWC-FSLC-DUCTRA).

#### HOW TO ORDER:

**FWC-FSLC-DUCT** - Analog Addressable Photoelectric Duct Detector in Housing

**FWC-FSLC-DUCTRA** - Single Gang Remote Annunciator test unit - Alarm LED with test key switch

**STS-2.5** - Sampling Tube 2.5' (purchase from local distribution)

**STS-5** - Sampling Tube 5' (purchase from local distribution)

**STS-10** - Sampling Tube 10' (purchase from local distribution)

## ENGINEERING SPECIFICATION:

The detectors shall be listed by Underwriters Laboratories per UL 268A. The detectors shall operate at air velocities ranging from 300 feet per minute to 4000 feet per minute.

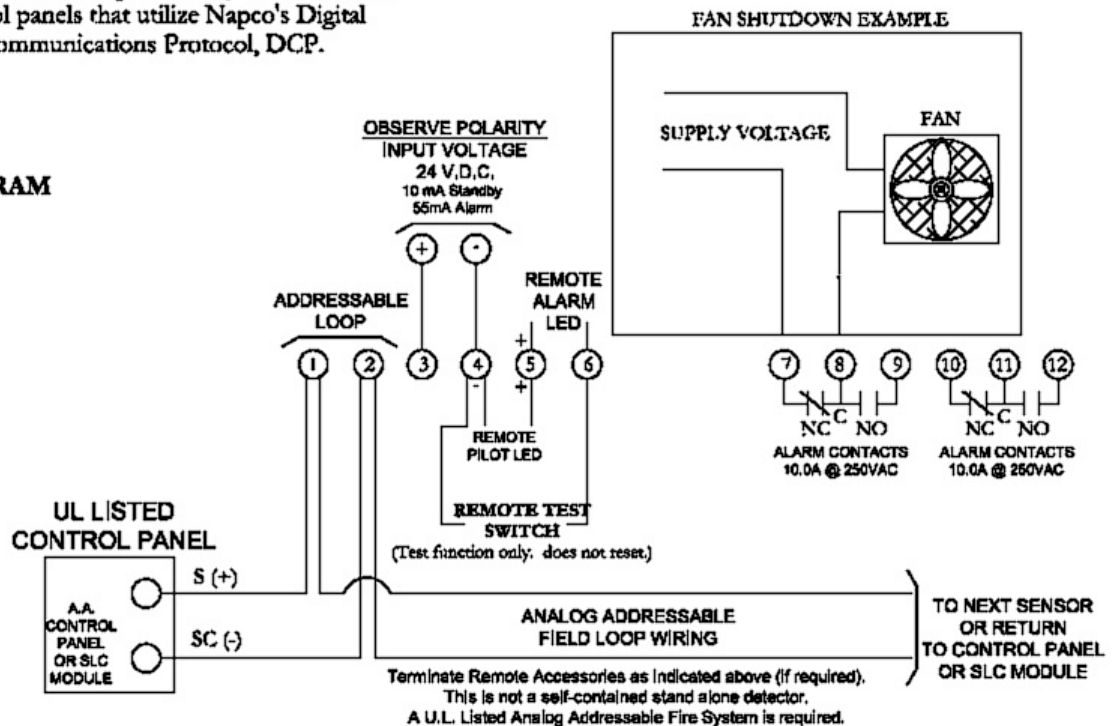
The duct detector housings shall be of metal construction and complete mechanical installation may be performed without the removal of the detector cover. The duct detector shall not require additional filters or screens that must be maintained. The housing shall contain a base that will accept an analog photoelectric sensor head. Terminal connections shall be of the screw type and be a minimum of #6 screw. For installations requiring relay functions, terminals shall be provided for remote pilot, remote alarm indication, strobe / horn and remote key switch. For installation not requiring relay functions, visual indication of alarm and power must be provided on detector front. A manual reset switch shall be located on the front of the device (FWC-FSLC-DUCTRA only). All wiring must comply with local codes and regulations.

## GENERAL:

Wiring must conform to applicable local codes, ordinances and regulations covering these types of devices. Wire the detectors according to the engineering drawings for the particular job requirements. These detectors are not intended for open area protection, nor should they be used for open air protection. Refer to NFPA 90A and NFPA 72 for general and additional information on Duct Smoke Detectors concerning operation and installation. Terminals are suitable for 12 to 22 AWG. Maximum of two (2) conductors per terminal.

The FWC-FSLC-DUCT is not self-contained sensors.  
This product is compatible only with fire alarm  
control panels that utilize Napco's Digital  
Communications Protocol, DCP.

## WIRING DIAGRAM



**CAUTION:** Since the analog loop is current limited similar to a conventional two-wire loop, the FWC-FSLC-DUCT cannot be guaranteed to operate under all conditions. This analog duct housing must be treated as a two-wire conventional duct detector when considering auxiliary functions necessary for smoke control.