

EAGLE SERIES - FIRE ALARM SYSTEMS

ANALOG DUCT DETECTOR

LE-DH-98



Duct housing with an LE-ALG-DH analog photoelectric sensor.

APPLICATION

The Lifeco LE-DH-98 Analog duct smoke detector provides early detection of smoke and products of combustion present in air moving through HVAC ducts in Commercial, Industrial and Residential applications. The LE-DH-98 is designed to prevent the recirculation of smoke in areas by the air handling systems, fans and blowers. Complete systems may be shut down in the event of smoke detection. The Lifeco LE-DH-98-A and the LE-DH-98-AR operate on a DCP powered loop (24 VDC source required for LE-DH-98-AR)

SPECIFICATION

Duct Detector Model #	LE-DH-98-A	LE-DH-98-AR
Detector Head model	ALG-DH	ALG-DH
Detector Head Type	Analog Photoelectric	
Communication	DCP Powered Loop	
Input Voltage	DCP Powered Loop	DCP Powered Loop/24V DC
Standby Current	2mA AVG	10mA
Alarm Current	8mA	55mA
Alarm Contacts	N/A	2 form C rated at 10A@250V AC
Sensitivity Test Method	Control Panel	
Remote Indication Compatibility (Refer to LE-DH-98 Accessories)	N/A	Power, Alarm, Horn/Piezo Test
Air Velocity	300 to 4000 ft/min.	
Ambient Temperature	32°F to 100°F (0°C to 38°C)	
Humidity	10% to 85% Relative Humidity (non-condensing)	
Housing Material	18 G.A. steel backbox, clear plastic cover	
Finish	Grey Paint	
Dimensions	9 1/8" L x 7 1/4" W x 2 1/4" H	
Maximum Net Weight	3lbs.	
Sampling Tubes	2.5ft., 5ft. or 10ft	



UL S24238



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PRODUCT DESCRIPTION

The LE-DH-98 is designed and built to meet all local requirements, as well as the NFPA regulations regarding duct smoke detectors. The LE-DH-98-AR is provided with output terminals for remote accessories such as a horn, strobe, remote status indicators and reset key switches or push buttons. Air sampling is accomplished by two tubes which 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 2.5 ft., 5 ft. and 10 ft. and cut to size to fit the duct. Mounting the duct smoke unit is accomplished by the use of a template and 4 sheet metal screws, which are provided. Mounting can be achieved without the removal of the clear cover which is secured by 4 capture screws. The compact DH-98-AR contains 2 sets of form "C" contacts rated at 10 amps. The pilot and alarm visual indicators, provided on the front of the DH-98-AR duct unit, signal the operating status of the device. A manual test/ reset switch is located along side the visual indicators.

STANDARD 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 (DH-98-AR only)
- Meets UL 268A Requirements

ENGINEERING SPECIFICATIONS

Air duct smoke detectors shall be Lifeco DH-98 Series. The detectors shall be listed by Underwriters Laboratories per UL 268A. The detectors shall operate at air velocities 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 removal of the detector cover. The duct detector shall not require additional filters or screens which must be maintained. The housing shall contain a base which will accept

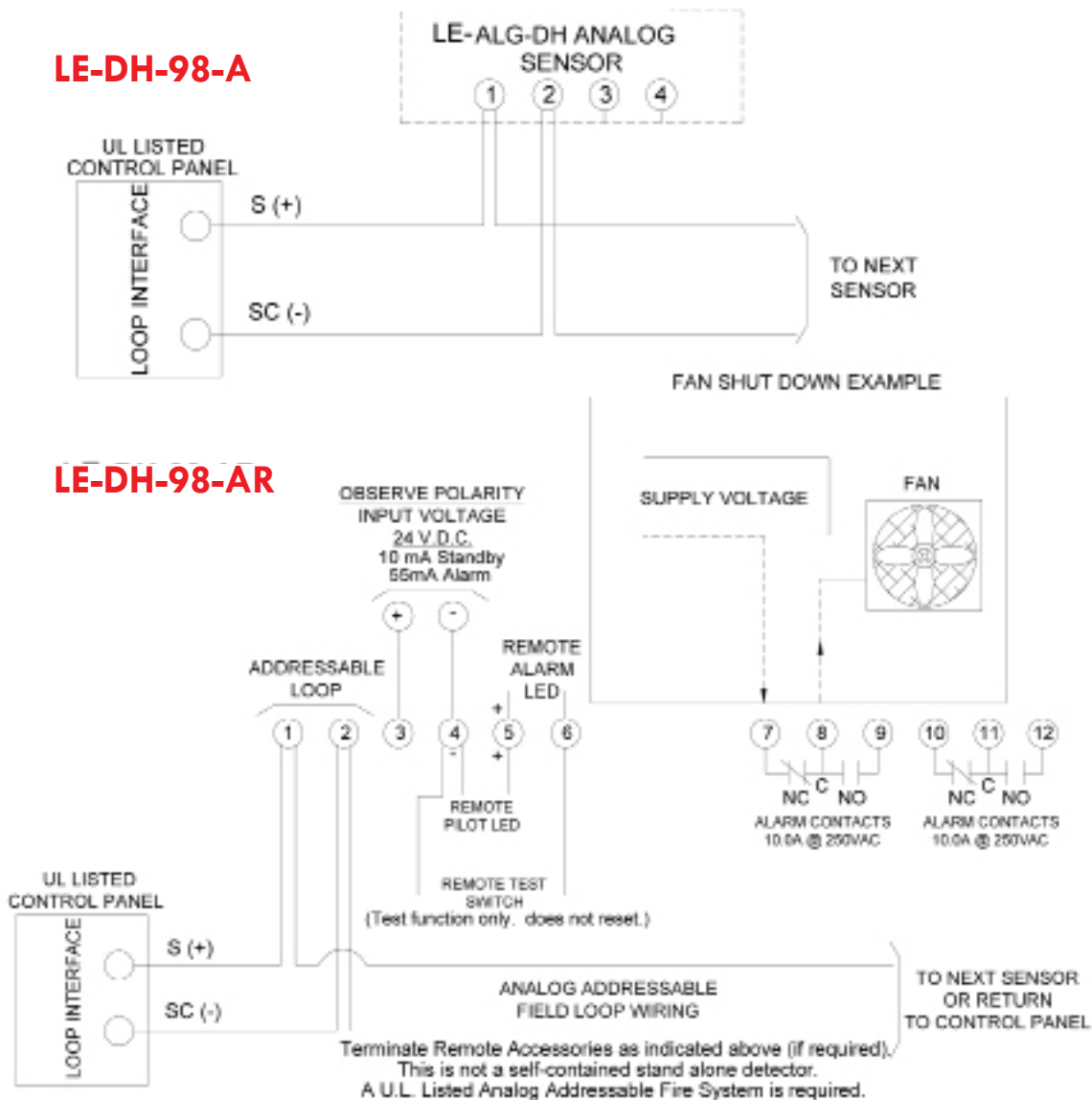
an analog photoelectric sensor head. Terminal connections shall be of the screw type and be a minimum of #6 screw. For installations requiring relay functions, terminals shall be provided for remote pilot, remote alarm indication, strobe/ horn and remote key switch. For installation not requiring relay 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 (DH-98-AR only). All wiring must comply with local codes and regulations.

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WIRING DIAGRAM



NOTE

The LE-DH-98-A and DH-98-AR are not self-contained sensors. This product is compatible only with fire alarm control panels that utilize Lifeco's Digital Communications Protocol, DCP. For example the FireNET Control Panel