GENERAL

The System Sensor DH400ACDC samples air currents passing through a duct. It gives dependable performance for management of fans, blowers and air conditioning systems, preventing the spread of toxic smoke and fire gases through the protected area.

System Sensor’s DH400ACDC 4-wire duct detector housing will accommodate either the 1451DH ionization sensor or the 2451 photoelectric sensor. The twist-in, twist-out detector heads allow easy removal for quick cleaning and maintenance, or a change in application without removing the duct housing.

NOTE: The System Sensor DH400ACDC Duct Detector Housing is supplied with either the 1451DH Sensor (order DH400ACDCI) or the 2451 Photoelectric Sensor (order DH400ACDCP).

FEATURES
- 24 VDC operation.
- Accommodates ionization or photoelectric heads.
- Simple change-out of detector heads: twist in, twist out.
- Easy to maintain.
- Powered outputs for remote LED and Sounder/Strobe.
- Air velocity rating from 500 to 4,000 feet per minute (3.175 to 25.4 m./sec.).
- UL 268A listed.
- Reset time: 0.3 seconds (maximum).
- Clear polycarbonate cover for convenient visual inspection of sampling tube filters.
- Rugged plastic housing (mounting portion).
- Remote test station option.
- Easy and quick mounting to round or rectangular ducts from 1’ to 12’ (0.305 to 3.66 m) wide.
- Three-year limited warranty.

APPLICATIONS

DH400ACDC detectors are designed to operate on 24 VDC, 24 VAC, 120 VAC, or 240 VAC. Alarm and supervisory relay contacts are available for control panel interface (alarm initiation), HVAC control, and other auxiliary functions. These detectors are NOT designed for 2-wire applications.

Duct detectors are:
- NOT a substitute for open area smoke detectors.
- NOT a substitute for early warning detection.
- NOT a replacement for a building’s regular fire detection system.

Refer to NFPA 90A for additional duct detector application information.

CONSTRUCTION AND INSTALLATION

The twist-in, twist-out detector and base allow the removal of detectors easily and quickly for cleaning and maintenance. In addition, detector heads can be changed to fit the application without removing the duct housing. The DH400ACDC comes with built-in exhaust tube. Sampling tubes are available to fit ducts from 1 to 12 feet (0.305 to 3.66 meters) wide.

ENVIRONMENTAL LIMITS

Temperature: 32°F to 120°F (0°C to 49°C). DO NOT INSTALL where normal ambient temperatures exceed 120°F (50°C).

Relative humidity: 10% to 93%.

Air velocity: 500 to 4,000 ft./min. (3.175 to 25.4 m./sec.).

MECHANICAL SPECIFICATIONS

Width: 14.5 inches (36.83 cm).
Height: 5 inches (12.70 cm).
Depth (installed): 4 inches (10.16 cm).
Weight: 4.5 pounds (2.041 kg).
Any combination of accessories may be used such that the given current loads total:

- 100 mA or less in the Standby state.
- 15 mA or less in the Alarm state.

*Note: When initiating an alarm using the test magnet. The RTS451 requires 71 mA maximum in pre-alarm and 78 mA in alarm. Normal standby current is 0 mA. The alarm current drops to 7 mA when the test magnet is removed from the RTS451.