Installation Manual	IM: 908
Smoke Detector	Group: **MPS**
	Date: **January 2008**
	Supersedes: **None**

The MQuay smoke detector is designed specifically for applications where standard external mount detectors cannot be utilized, such as air shafts, plenum spaces, or applications requiring extremely low, or no air velocity. The detector provides early detection of smoke and combustion present in the air of a duct supply, return, or both, in commercial, residential, and industrial applications.

Contents

McQuay® Air Conditioning

Specifications

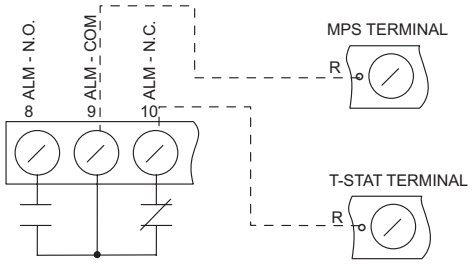
Table 1: Unit Specifications

Power Requirements	
Standby Current	**60 Hz Alarm Current**
24 V (ac) – 54.4 mA 24 V (dc) – 15 mA 115 V (ac) – 31 mA 230 V (ac) – 18 mA	24 V (ac) – 139 mA 24 V (dc) – 48 mA 115 V (ac) – 34 mA 230 V (ac) – 20 mA
Unit Ratings	
Alarm Contacts:	1 set form “C” rated at 10 A @ 115 V (ac) resistive 1 form “A” rated at 2 A
Trouble Contact:	1 set form “B” rated at 10 A @ 115 V (ac) resistive
Air Velocity	0 to 3000 ft/min.
Ambient Temperature:	32° to 140°F (0° to 60°C)
Humidity:	0% to 85% RH non-condensing/non-freezing
Material:	White platic base/housing and detector
Dimensions:	6" diameter, 4" H overall/2.6" front to back
Max. Weight:	1.0 lb
Radioactive element:	Americum 241, 0.9 micro curie
Mounting:	Standard 4" square back box

Terminal Connections

Prior to connecting input power to the duct unit, determine the correct input voltage/current availability and connect to the correct terminals.

Figure 1. Dry Contact Outputs Alarm



15 A @ 124 V (ac)
10 A @ 277 V (ac)
7 A @ 30 V (dc)
1/4 HP @ 125/250 V (ac) (N.C.)
1/3 HP @ 125/250 V (ac) (N.O.)

Installation

⚠ DANGER

Moving machinery and electrical power hazards. Will cause severe personal injury or death.
Disconnect and lock off all power before servicing equipment.

⚠ CAUTION

Sharp edges on sheet metal and fasteners can cause personal injury. This equipment must be installed, operated, and serviced only by an experienced installation company and fully trained personnel.

1 The smoke detector can be mounted in the duct or in the return air section of the unit. If installing inside the unit, locate an area where there is a uniform, non-turbulent airflow of between 500 and 3000 ft/min (example shown in Figure 2). Other possible installation locations are inside the economizer and inside the curb.

Figure 2. Non-Turbulant Airflow Area for Mounting

2 Mount a 4 x 4 junction box in this non-turbulant airflow area. Twist the smoke detector onto the screws on the top of the junction box (Figure 3) to form a complete installed unit (Figure 4).

Figure 3. Mounting the Smoke Detector to Junction Box

Figure 4. Junction Box and Smoke Detector Installed

3 Run the wires for the 24 VAC and NC contacts back to the control panel.

Note: For Maverick units, the wires may be run with the existing exhaust fan wiring or economizer wiring.