


AD-HR Air Duct Housing w/Relay

For Use with the FireFinder XLS Control Panel

ENGINEER AND ARCHITECT SPECIFICATIONS

MODEL AD-HR

- For HFP-11 Detectors
- Alarm LED Visible from Front
- Clear Housing Cover for Quick Identification of Detector Type
-  ULC Listed



Introduction

The Siemens Building Technologies Inc., Fire Safety Division air duct detector housings are designed to be used with HFP-11 detectors. Designed for installation directly to heating, ventilating and air conditioning duct systems, they comply with National Fire Protection Association Standard No. 90A. When equipped with photoelectric detectors, these units will signal the presence of hazardous quantities of products of combustion or smoke being carried through the duct system. Air duct detectors are not intended to be substituted for open area detection.

AD-HR air duct housings can be equipped with optional relays. These relays are utilized to operate any supplementary equipment when smoke or particles of combustion are detected.

With the FireFinder XLS series of control panels, up to 252 detectors per circuit having relays may be used. The connection of a remote lamp and a remote relay is also allowed.

Description

The AD-HR air duct housing is uniquely designed to use the photoelectric detector.

HFP-11 sensitivity may be viewed from the multi-color LED on the detector or preferably may be printed by command on an optional printer from the FireFinder XLS control panel. The multi-color LED on the HFP-11

flashes green to indicate the detector has passed its self test and is within its proper sensitivity range. Yellow indicates either a "Trouble" condition or an "Out of Sensitivity" condition. Red indicates alarm.

The detector unit employs a cross-sectional sampling principle of operation. Inlet sampling tubes are available in four lengths (see table on reverse side). Outlet sampling tubes are one common length. A continuous cross-sectional sample of air moving through the duct is taken. This averages the effects of laminar flow, stratification or skin effect phenomena occurring in the duct that could prevent combustion product or smoke (especially in large ducts) from reaching a spot type detector.

In addition, the unique design of the sampling chamber insures uniform sensitivity in air velocities, ranging from a low of 300 feet per minute to as high as 4000 feet per minute.

The inlet sampling tube length is determined by the width of the air duct being protected. The inlet tube nearest to but greater than the duct width should be used (see table). The inlet tube can then be trimmed at the job site to the exact width of the duct. The outlet sampling tube for all ducts, irrespective of width, has a fixed length of approximately 3 inches (7.5 cm) and is supplied with the AD-HR air duct housing.

CATALOG NUMBER

6303

| Duct Width | Sampling Tube Model No. |
|-------------------------------------|-----------------------------|
| 9" to 1'9" (21 cm to 51 cm) | STA-2 |
| 1'9" to 3'3" (51 cm to 97.5 cm) | STA-3 |
| 3'3" to 6'3" (97.5 cm to 187.5 cm) | STA-6 |
| 6'3" to 9'9" (187.5 cm to 292.5 cm) | STA-10 |
| Greater than 9'9" (292.5 cm) | Consult Siemens Fire Safety |

Sampling Tube Selection Table

Maintenance of the detector is easily accomplished by the removal of the Series 11 duct housing sampling chamber cover. The detector, which plugs into the housing, is easily removed for cleaning by a trained technician.

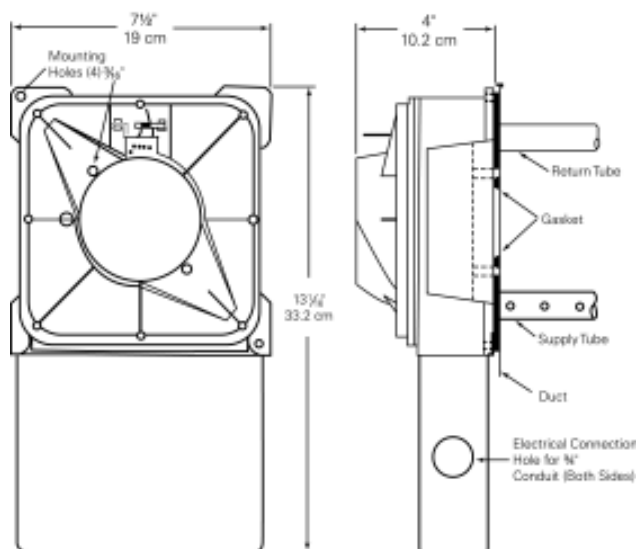
All that is necessary for the installation of the air duct detector is the cutting of three small holes for the sampling tube installation (template included) and the drilling of four holes for mounting the air duct housing. The unit is then easily mounted in place and connection made to the existing wires or terminals if optional accessories are utilized.

Note to Architect: When building codes regulate the location of detectors within ventilating systems, make sure that the number and locations of detectors is in accordance with the code regulations.

Ordering Information

| Model | Description | Part Number |
|--------|--|-------------|
| AD-HR | Series 11 air duct housing with cover for the HFP-11 detector equipped with remote relay | 500-033280 |
| HFP-11 | Intelligent Fire Print Detector | 500-033290 |
| STA-2 | Sample Tube, for ducts 9" to 1'9" | 500-684360 |
| STA-3 | Sample Tube, for ducts 1'9" to 3'3" | 500-684361 |
| STA-6 | Sample Tube, for ducts 3'3" to 6'3" | 500-684362 |
| STA-10 | Sample Tube, for ducts 6'3" to 9'9". Sampling Tubes greater than 9'9", consult Siemens Fire Safety | 500-684363 |
| RL-HC | Remote (red) alarm indicator -4" octagon box mount | 500-033230 |
| RL-HW | Remote (red) alarm indicator single gang box mount | 500-033310 |
| EAD-3 | Weatherproof enclosure for duct housing | 500-686214 |

Dimensions



Note: The AD-HR air duct housing is used with HFP-11 detectors on the FireFinder XLS control panel when a relay is required in the housing. If no relay is required, use the AD-11P housing.

When required, the EAD-3 weatherproof enclosure for duct housing is available.

NOTICE: The use of other than Fire Safety detectors and bases with Fire Safety equipment will be considered a misapplication of Fire Safety equipment and as such void all warranties either expressed or implied with regard to loss, damage, liabilities and/or service problems.