

## Features

**Weatherproof duct housing enclosure for use with the following TrueAlarm addressable duct sensor housings\*\* (ordered separately):**

- 4098-9755, Standard Duct Sensor Housing
- 4098-9756, Duct Sensor Housing with Relay Output

### Addressable duct sensor housing details:

- Photoelectric sensor and exhaust tube are supplied
- Sampling tube is ordered separately per duct size
- Continuous communications actively monitors status of electronic circuits
- Refer to Simplex data sheet S4098-0030 for additional duct sensor housing details

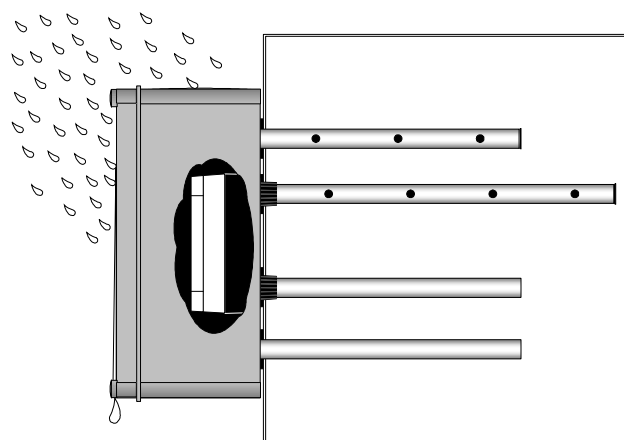
### Weatherproof duct housing enclosure features:

- Circulation of conditioned air from the air duct helps maintain the sensor housing at its rated temperature range
- Nonmetallic material does not require painting
- Captive cover screws
- Intake and exhaust tubes for weatherproof duct housing enclosure are supplied
- A full size mounting template and all required gaskets are supplied for installation convenience
- UL listed to Standard 268A
- NEMA 4X rating

## Description

Smoke detection system designs that require smoke detection monitoring of an HVAC duct that is exposed to environmental extremes must provide protection against the anticipated temperatures and total weather conditions. The 4098-9845 Weatherproof Duct Housing Enclosure provides for the circulation of conditioned air around the internally mounted addressable duct sensor housing to maintain the sensor housing at its rated temperature range and provide protection from ambient environmental extremes.

\* This product has been approved by the California State Fire Marshal (CSFM) pursuant to Section 13144.1 of the California Health and Safety Code. See CSFM Listing 7300-0026:245 for allowable values and/or conditions concerning material presented in this document. It is subject to re-examination, revision, and possible cancellation. This product was not ULC listed or approved by FM or MEA (NYC) as of document revision date. Additional listings may be applicable, contact Simplex for the latest status.



Side View of Weatherproof Duct Housing Enclosure 4098-9845 with Duct Tube Detail and Cutaway Showing Sensor Housing (refer to page two for details)

## Specifications

### 4098-9845 Weatherproof Duct Housing Enclosure

Air Velocity Range (linear ft/min)	300 to 4000 ft/min (91 to 1220 m/min)	Refer to graph on page 4 for additional information
UL Listed External Temperature Range	-40° to 158° F (-40° to 70° C)	
UL Listed External Humidity Conditions	Up to 100% RH	
NEMA Enclosure Category	4X	
Construction	Solid body and door, light gray, PBT/PC blended plastic, UL94-5VA flammability rating, UV stabilized	
Dimensions	22 1/8" W x 15" H x 7 1/8" D (562 mm x 381 mm x 181 mm)	

### Addressable Duct Sensor Housing 4098-9755/9756

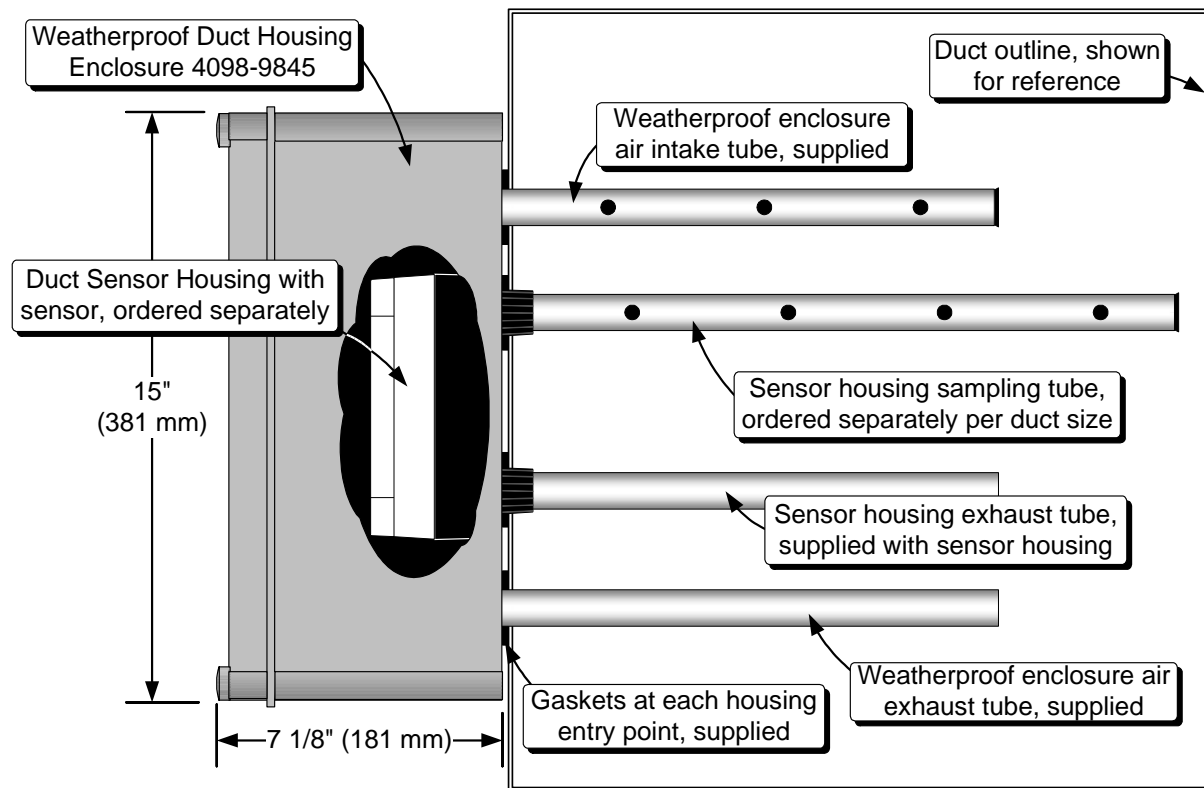
UL Listed Temperature Range	32° to 100° F (0° to 38° C)
Operating Temperature Range	32° to 122° F (0° to 50° C)
Storage Temperature Range	0° to 140° F (-18° to 60° C)
Humidity Range	10% to 90% RH, non-condensing

\*\* TrueAlarm sensor designs and their operation are protected by one or more of the following U.S. Patents: 5,155,468; 5,173,683; 5,543,777; 5,400,014; 5,552,765; 5,552,763; 4,796,025; DES. 377,460.

## Location Considerations

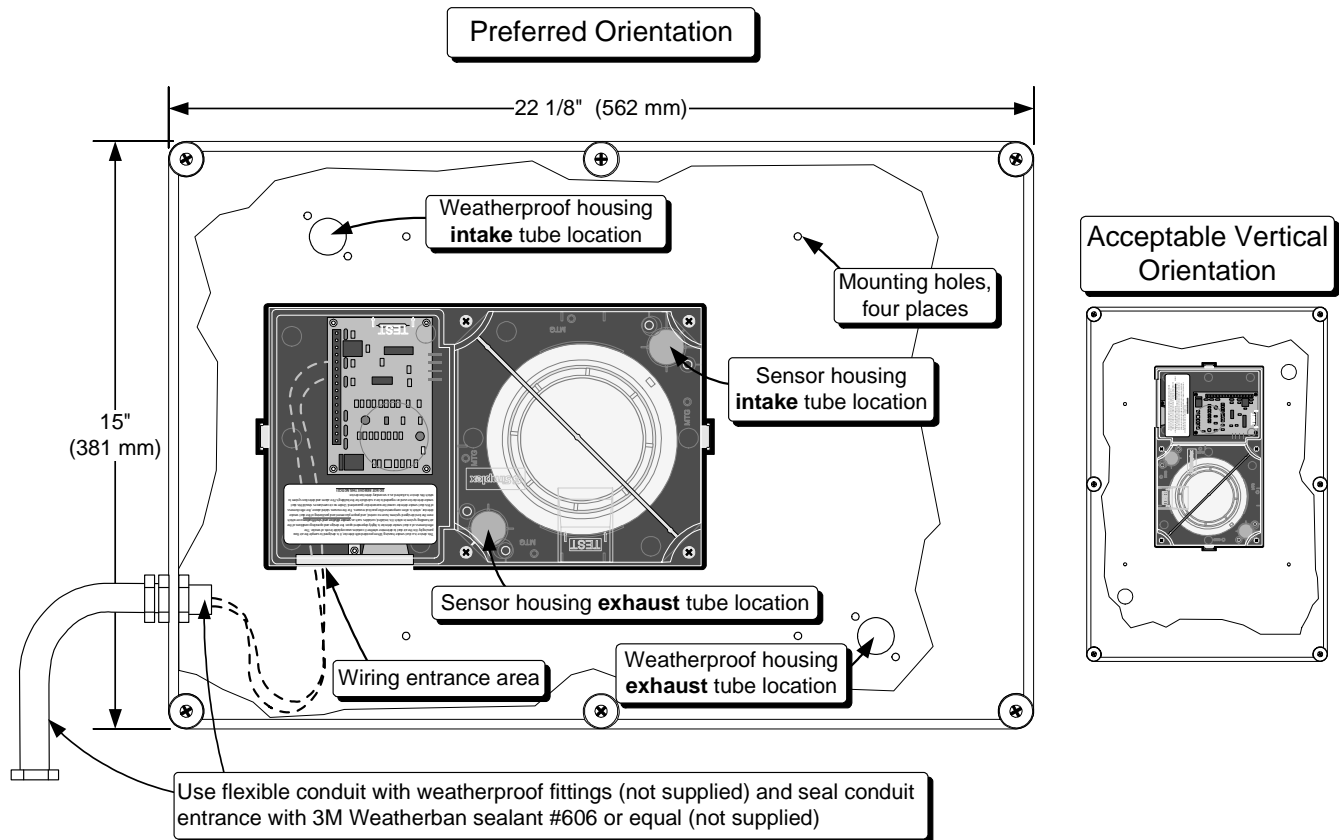
1. **DO NOT** locate the 4098-9845 Weatherproof Duct Housing Enclosure in direct sunlight.
2. Do locate the 4098-9845 Weatherproof Duct Housing Enclosure on the shaded/sheltered side of an exposed HVAC duct. Where this is not possible or where minimal protection would be provided, use a sheetmetal or equivalent canopy that provides ventilated shelter for the enclosure.
3. Ensure that the final mounting location will provide convenient access to the enclosure for maintenance.
4. Refer to Installation Instructions 574-922 for additional installation information.

## Installation Reference, Side View



## Installation Reference, Front View Showing Preferred and Alternate Orientations

**NOTE:** Refer to Installation Instructions 574-922 for additional information.

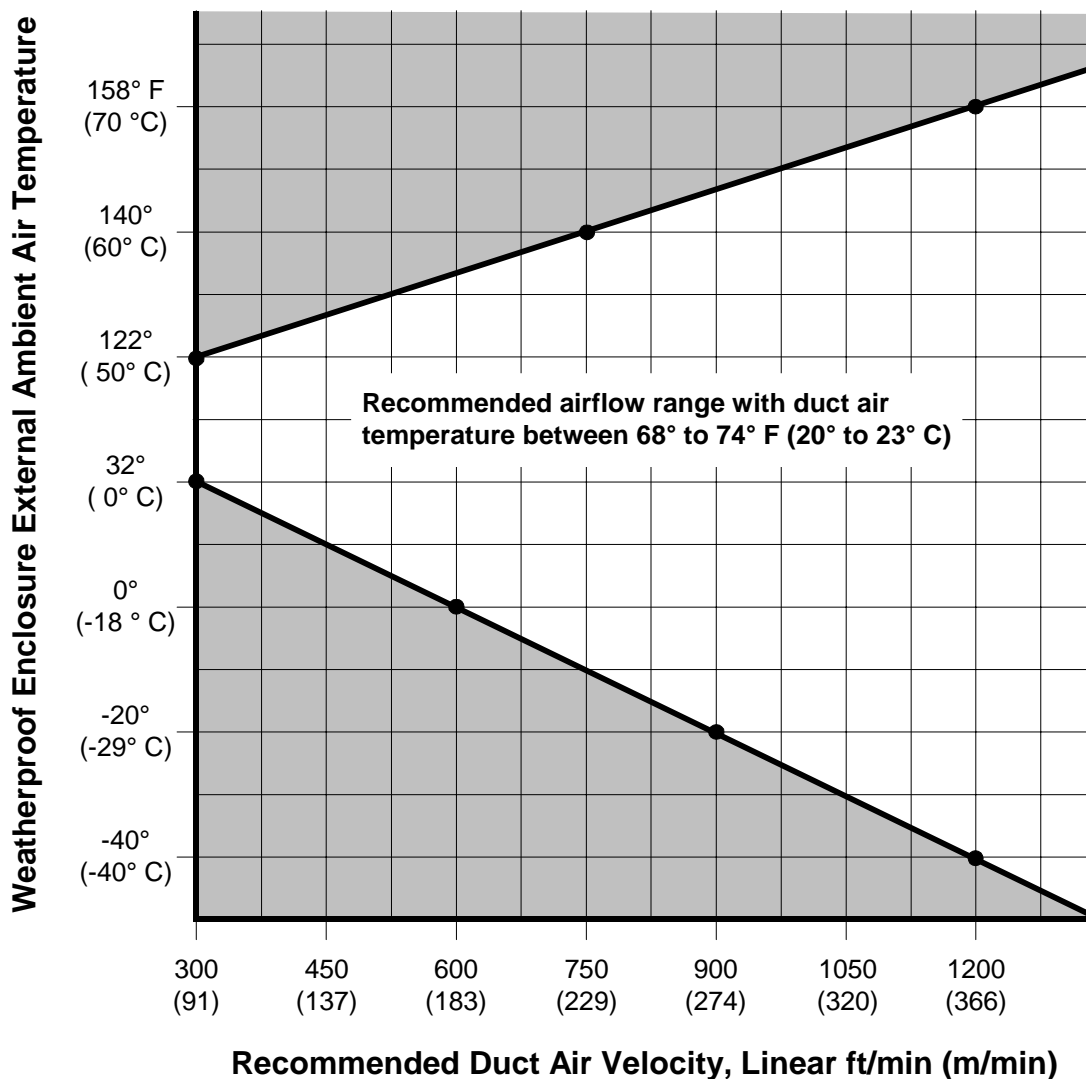


## Application Reference, Ambient Temperature vs. Recommended Airflow Graph

The graph shown below presents the results of controlled laboratory testing performed on a typical 4098-9845 Weatherproof Enclosure protecting an internally mounted duct sensor housing. The external ambient air temperature of the 4098-9845 Weatherproof Enclosure was varied throughout its UL listed operating temperature range. Temperatures were recorded within the protected duct sensor housing with varying duct air velocities of air maintained between 68° and 74° F (20° to 23° C).

This graph illustrates how an increase in the test airflow velocity allows the airflow through the weatherproof enclosure to maintain the duct sensor housing at its rated range as the ambient temperature of the weatherproof enclosure is varied throughout temperatures anticipated for exterior air duct locations.

**PLEASE NOTE** that for typical external air duct applications, heating air would be hotter than 74° F and cooling air would be lower than 68° F, extending the acceptable airflow range accordingly.



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All specifications and other information shown were current as of printing and are subject to change without notice.