

A4098-9845 Weatherproof Enclosure Application Addendum

Testing A4098-9845 Weatherproof Enclosure

The graph shown below presents the results of controlled laboratory testing performed on a typical A4098-9845 Weatherproof Enclosure protecting an internally mounted duct sensor housing. The external ambient air temperature of the A4098-9845 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.

Note: 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.

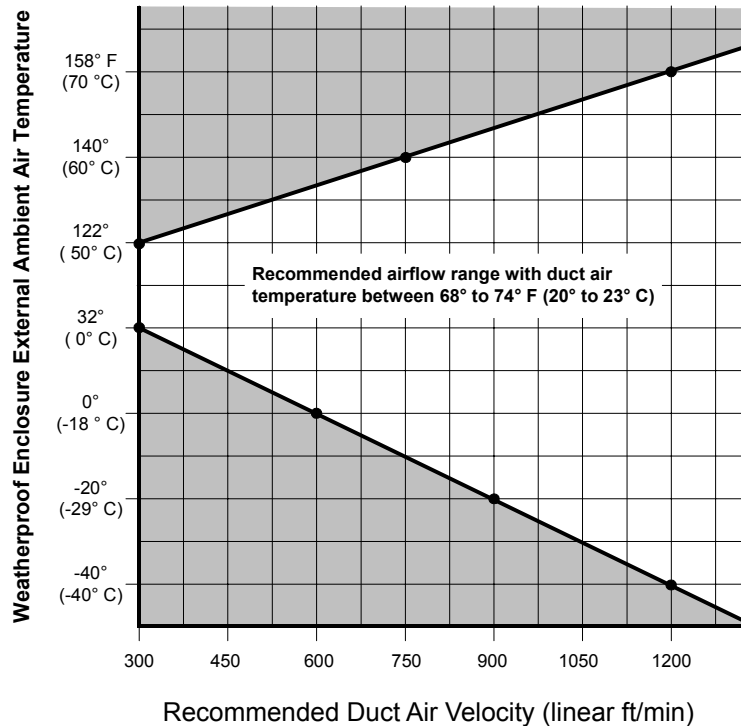


Fig 1: Relationship between Ambient Air Temperature and Air Flow

Mounting Guidelines

In addition, adhere to the following guidelines when mounting the enclosure and duct sensor. Failure to adhere to these guidelines may result in damage to the internal sensor.

- **DO NOT locate the A4098-9845 Weatherproof Duct Housing Enclosure in direct sunlight.**
- Do locate the A4098-9845 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.
- Ensure that the final mounting location will provide convenient access to the enclosure for maintenance.
- When drilling holes within the enclosure and the duct sensor housing, ensure that no particles fall into the duct sensor head or electronics.



