GreenTrol Automation Inc.

GreenFlow GF Series

Airflow Measurement

Series Overview

Thermal Dispersion Airflow and Airflow/Temperature Measurement

The GF Series use the principal of thermal dispersion to determine the airflow rate. Thermal dispersion is ideal for HVAC applications that typically require measurement of low air velocities. Each sensing node uses two thermistors to determine airflow. One thermistor is self-heated above ambient while a second thermistor determines the ambient air temperature. The power dissipated into the airstream is directly related to the airflow rate.

The GF Series is available with integral or remote transmitters. Remote transmitters accept GreenTrol IAT integrated airflow/temperature sensors. IAT integrated airflow/temperature sensors are also compatible with many GreenTrol controllers.

GF-A1000-DI Airflow Measurement Device

The GF-A1000-DI airflow measurement device is a low cost, high performance, solution for airflow measurement in smaller round ducts. Designed for insertion mounting, the GF-A1000-DI is provided with an integral transmitter. Simply provide 24 VAC/DC power and connect the output cable wires to a BAS or other analog input device to determine the airflow rate. Available in aluminum or stainless steel. Fits 4 to 16 inch round ducts.

GF-A1001-DI Airflow/Temperature Measurement Device

The GF-A1001-DI airflow/temperature measurement device is essentially the GF-A1000-DI with an additional analog output signal for temperature..

GF-N1000-DI Airflow/Temperature Measurement Device

The GF-N1000-DI airflow/temperature measurement device is functionally the same as the GF-A1001-DI with the exception that the BAS connection is via RS-485 field selectable BACnet MS/TP or Modbus RTU. In addition to airflow and temperature capability, device status is also available via the network.

IAT-DI Airflow/Temperature Probe

The IAT-DI integrated probe is compatible with GF Series remote transmitters and various GreenTrol application specific controllers. The probe is designed for insertion into small round ducts and is available with a 3, 10, 25 or 50 foot plenum rated cable with connector plug. Available in aluminum or stainless steel. Fits 4 to 16 inch round ducts.

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IAT-UI Airflow/Temperature Probe

The IAT-UI integrated probe is compatible with GF Series remote transmitters and various GreenTrol application specific controllers. The probe is designed for insertion into ducts or other air paths and is available with a 3, 10, 25 or 50 foot plenum rated cable with connector plug. Available in aluminum only. Universal, adjustable length tube, is available in 6, 8 and 16 inch probe lengths. Applicable for ducts or other openings up to 8 sq ft.

IAT-US Airflow/Temperature Probe

The IAT-US integrated probe is compatible with GF Series remote transmitters and various GreenTrol application specific controllers. The probe is designed for insertion into outdoor air intakes, plenums or other air paths and is available with a 3, 10, 25 or 50 foot plenum rated cable with connector plug. Available in aluminum only. Universal, adjustable length tube can be rotated on its mounting bracket. Probes are available in 6, 8 and 16 inch lengths. Applicable for outdoor air intakes, plenums or other openings up to 8 sq ft.

GF-A2000 Transmitter for IAT Probes

The GF-A2000 transmitter accepts one IAT-DI probe or up to two IAT-UI/US probes. The transmitter has two analog output signals. One output signal can be assigned to the average airflow of the connected probes or the airflow of the individual probe connected to “P1” when two IAT-UI/DI probes are used. The second output signal can be assigned to the probe connected to “P2” or the average temperature of the connected probes. A contact closure relay is also provided that can be assigned to one or more of the built-in alarms.

GF-N3000 Transmitter for IAT Probes

The GF-N3000 transmitter is functionally the same as the GF-A2000 with the excpetion that the BAS connection is via RS-485 field selectable BACnet MS/TP or Modbus RTU. In addition to airflow, temperature and alarm capability, device status is also available via the network.