GF-N3000 Transmitter

Product Data

RS-485 BACnet/Modbus Airflow/Temperature Transmitter Module w/Contact Closure Airflow Alarm

❑ Compatible with GreenTrol IAT integrated thermal dispersion airflow/temperature sensors

❑ LCD with pushbutton user interface standard

❑ Measures airflow and temperature

❑ Airflow and system status notification alarms

❑ RS-485 network connection can be field configured for BACnet MS/TP or Modbus RTU

❑ Airflow can be assigned to one or two airflow locations when more than one probe is provided

❑ Contact closure relay can be assigned to notification alarms

❑ "Plug and play" operation

❑ Field adjust wizard facilitates airflow adjustment when conditions warrant.

❑ Fully field configurable

√ Provide continuous verification of airflow rates

√ Ideal for monitoring applications

√ Connect to an application controller to maintain airflow rates and/or temperature

√ Demonstrate compliance with ASHRAE Standards 62.1, 90.1 and 189.1

√ Satisfy LEED prerequisites and document code compliance

√ Improve indoor air quality and thermal comfort

√ Save energy

The GF-N3000 can be provided with a single integrated IAT-DI duct probe or, one or two integrated IAT-UI or IAT-US universal mount probes.

The GF-N3000 provides a network connection for the average

airflow of one or two probes. It can also be configured to output the airflow of the second probe for applications where two probes are installed in separate locations. Temperature and notification alarms are available via the network. The airflow and temperature of individual sensor nodes are available via the network, if desired. A contact closure relay is provided that can be assigned to the notification alarms. The GF-N3000 can be configured for I-P or SI units of measure.

Although the transmitter is "plug and play" and operates on power up, it is fully configurable in the field using the pushbutton interface and LCD.

GF-N3000 Transmitter Module Technical Specifications

Functionality

Airflow Measurement: Provides the average airflow rate of one or two probes, or optionally of individual probes, in FPM [m/s] or CFM [LPS] on the LCD and via the network.

Temperature Measurement: Provides the velocity weighted or arithmetic average temperature in $^\circ$F [$^\circ$C] on the LCD and to analog output AO2 when AO2 is assigned to temperature.

Notification Alarms
- High/Low Airflow Alarm
- System Trouble Alarm

Note: Alarms can be assigned to the contact closure relay

User Interface

Display: 16-character alpha-numeric LCD
Navigation: 4-button interface

Integrated Sensor Capability

Type: Accepts GreenTrol IAT-DI, IAT-UI and IAT-US Thermal Dispersion Airflow and Temperature Measurement Probe (required unless an external MS/TP airflow measurement device is provided). See appropriate IAT product data sheet for probe information.

Available Configurations: IAT-DI Probes
- **Single Probe:** 1 probe x 1 or 2 sensor nodes/probe

Available Configurations: IAT-UI and IAT-US Probes
- **Single Probe:** 1 probe x 1 sensor node/probe
- **Dual Probe:** 2 probes x 1 sensor node/probe

Network Connection

N1

Type: Non-isolated, field selectable MS/TP BACnet master or Modbus RTU connection (provide separate transformer to each GF-N1000-DI or an RS-485 network isolator if isolation is required)

B.A.S. Object/Register Read/Write Access: Yes
Device Load: 1/8 load
Supported Baud Rates: 9.6, 19.2, 38.4 and 76.8 kbaud

Contact Closure Relay

R1

Type: Dry contact w/ onboard jumper to drive a remote LED
Assignment: OAC alarms or Control Mode
Status: Normally Open (N.O.)
Rating: 30 VDC or 24 VAC @ 3 amp. max.

Environmental Limits, Power Requirements & Dimensions

Environmental Limits
- **Temperature:** -20 to 120 $^\circ$F [-28.9 to 48.9 $^\circ$C]
- **Humidity:** 5 to 95%

Important: Provide a weather-proof enclosure if the transmitter module is mounted outdoors

Power Requirement: 24 VAC (22.8 to 26.4 under load) @8.5V-A
Dimensions: 3.57H x 6.00W x 1.50D in. [90.7 x 152.4 x 38.1 mm]