The EF-x2000-B is a unique measurement device that can detect very small pressure differentials (as low as 0.0002” H₂O) between two adjacent spaces by sensing the airflow rate induced by the pressure gradient. The EF-x2000-B can be used to determine the airflow rate across fixed openings when a reference airflow rate is provided.

**Typical Applications**
- Ultra-low Pressure Detection
- Parking Garage Pressurization
- Construction Zone Contaminant Containment
- Stairwell Pressurization
- Relief and Exhaust Damper Control
- Airflow across a Louver or other Fixed Opening

**Benefits**
- Maintain Pressure Relationships between Adjacent Spaces
- Satisfy LEED Prerequisites and Credits
- Provide Acceptable IAQ
- Save Energy
- Reduce Liability
- Improve Performance

**Product Highlights**
- Uni- or Bi-directional Measurement
- Extremely Sensitive
- Airflow or Equivalent Pressure Output
- Long-term Stability
- Small Footprint
- Simple NPT Pipe Connections
- Optional Mounting Kits Available
## General

**Probe and Sensor Node Configuration**
- 1 bi-directional, dual 1/2" NPT female bleed sensor housing

**Installed Accuracy**
- **Airflow through an opening or across and obstruction:** Requires field measurement of a reference airflow of the specific installation. The Field Adjust Wizard (FAW) facilitates setup.
- **Equivalent pressure between two adjacent spaces:** Requires field measurement of a reference pressure to correct the default flow coefficient of the specific installation. The Field Adjust Wizard (FAW) facilitates setup.

**Listings and Compliance**
- **UL:** 60730-1, 60730-2-9; CAN E60730-1, E60730-2-9 (EF-A2000-B Only)
- **FCC:** This device complies with Part 15 of the FCC rules
- **RoHS:** This device is RoHS2 compliant

**Environmental Limits**
- **Temperature:**
  - Sensor: -2,000 to 2,000 fpm [-10.16 to 10.16 m/s]: -20 to 160 °F [-28.9 to 71.1 °C]
  - Transmitter: -20 to 120 °F [-28.9 to 48.9 °C]
- **Humidity:** (non-condensing)
  - Probes: 0 to 100%
  - Transmitter: 5 to 95%

### Bleed Sensor Assembly

#### Sensing Node Sensors
- **Self-heated sensor:** Two precision, hermetically sealed, bead-in-glass thermistor probes
- **Temperature sensor:** One precision, hermetically sealed, bead-in-glass thermistor probe

#### Sensing Node Housing
- **Material:** Glass-filled Polypropylene
- **Sensor Potting Materials:** Waterproof marine epoxy

**Airflow Measurement**
- **Accuracy:** ±2% of reading to NIST-traceable airflow standards (includes transmitter uncertainty)
- **Calibrated Range:** -3,000 to 3,000 fpm [-15.24 to 15.24 m/s]
- **Calibration Points:** 9

**Temperature Measurement**
- **Accuracy:** ±0.15°F [0.08 °C] to NIST-traceable temperature standards (includes transmitter uncertainty)
- **Calibrated Range:** -20 to 160 °F [-28.9 to 71.1 °C]
- **Calibration Points:** 3

#### Probe to Transmitter Cables
- **Type:** FEP jacket, plenum rated CMP/CL2P, UL/cUL listed, -67 to 302 °F [-55 to 150 °C], UV tolerant
- **Standard Lengths:** 10, 25 and 50 ft [3.1, 7.6 and 15.2 m]
- **Connecting Plug:** 0.60" [15.24 mm] nominal diameter

## Transmitter

**Power Requirement:** 24 VAC (22.8 to 26.4 under load) @8V-A

**User Interface:** 16-character LCD display and 4 button interface

**B.A.S. Connectivity Options**
- **EF-A2000 Transmitter:** Two field selectable (0-5/1-5/0-10/2-10 VDC), scalable and protected analog output signals (AO1=airflow or equivalent ΔP, AO2=temperature or alarm) * The VDC output circuit of the EF-A2000 transmitter can drive the input circuit of devices designed to measure 4-wire current loops with a resistive load ≥250 ohms.
- **EF-N2000 Transmitter:** One field selectable (BACnet MS/TP or Modbus RTU) and non-isolated RS-485 network connection - Individual sensor node airflow rates and temperatures are available via the network (provide individual 24 VAC transformers for each EF-N2000 transmitter for applications requiring isolated RS-485)

**Relay**
- **Type:** Dry Contact w/ onboard jumper to drive a remote LED (R1=alarm)
- **Status:** N.O. or N.C. via user setup configuration
- **Rating:** 30 VDC or 24 VAC @ 3 amp. max.

**Airflow (or Pressure) Alarm**
- **Type:** Low and/or high user defined setpoint alarm
- **Tolerance:** User defined setpoint value
- **Delay:** User defined
- **Reset Method:** Manual or automatic
- **Visual Indication:** Yes, LCD display
- **Network Indication:** Yes (EF-N2000 only)
- **Analog Signal Indication:** Yes, on AO2 assignment (EF-A2000 only)

**Contact Closure Relay**
- **Yes, on R1 assignment**

**System Status Alarm**
- **Type:** Sensor diagnostic system trouble indication
- **Visual Indication:** Yes, LCD display
- **Network Indication:** Yes (EF-N2000 only)
- **Analog Signal Indication:** Yes, on AO2 assignment (EF-A2000 only)

**Contact Closure Relay**
- **Yes, on R1 assignment**