The HTx104-F/Sl and HTx104-F/Di are EBTRON’s most economical solution for accurate and repeatable airflow measurement in SWSI and DWDI fans. Airflow, temperature and/or airflow alarming are available on all models. Does not affect fan performance.

**Typical Applications**
- Fan Airflow Tracking
- Air Change Verification & Monitoring
- Fan Performance Monitoring

**Benefits**
- Demonstrate Fan Performance and Operation
- Improve Fan Tracking on VAV Systems
- Comply with ASHRAE Standards
- Save Energy
- Reduce Fan Horsepower

**Product Highlights**
- Accurate and Repeatable
- Long-term Stability
- Streamline Design
- Adjustable Mounting Brackets
- “Plug and Play” Operation
- Intuitive User Interface
- FEP Plenum Rated Cables
**General**

**Probe and Sensor Node Configurations**
- **SWSI and DWDI fans:** 2 probes x 1 sensor node/per probe in each fan inlet

**Installed Airflow Accuracy**

$\pm(3\% \text{ to } 10\%)$ of reading, depending on fan type and installation. May be improved by field adjustment using the Field Adjust Wizard (FAW) to a reliable reference.

**Sensor Node Averaging Method**
- **Airflow:** Independent, arithmetic average
- **Temperature:** Independent, velocity weighted average

**Listings and Compliance**
- **UL:** UL-873 and CSA C22.2 No. 24
- **CE:** European shipments only
- **BACnet International:** BTL Listed (HTN104 transmitter)
- **FCC:** This device complies with Part 15 of the FCC rules
- **RoHS:** This device is RoHS2 compliant

**Environmental Limits**
- **Temperature:**
  - Probes: -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%

**Individual Sensing Nodes**

**Sensing Node Sensors**
- **Self-heated sensor:** Precision, hermetically sealed, bead-in-glass thermistor
- **Temperature sensor:** Precision, hermetically sealed, bead-in-glass thermistor

**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:** 0 to 10,000 fpm [0 to 50.8 m/s]
- **Calibration Points:** 16

**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

**Sensor Probe Assembly**

**Mounting Rods**
- **Material:** Zinc plated steel

**Mounting Brackets**
- **Material:** 304 stainless steel

**Mounting Options & Size Limits**
- **Throat:** 6 to 66 inches [152.4 to 1676.4mm] (throat diameter)
- **Forward:** 6 to 64 inches [152.4 to 1625.6 mm] (diameter at inlet entrance)
- **Face:** 11 to 77 inches [279.4 to 1955.8] (diameter at inlet entrance)

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1. Installed airflow accuracy is the actual system accuracy expected and includes sampling uncertainty of the sensor probes.

**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] circular DIN

**Transmitter**
- **Power Requirement:** 24 VAC (22.8 to 26.4 under load) @11V-A
- **PCB Connections:** Gold-plated PCB interconnects and test points
- **User Interface:** 16-character LCD display and 4 button interface

**B.A.S. Connectivity Options**
- **HTA104 Transmitter:** Two field selectable (0-5/0-10 VDC or 4-20mA), scalable and isolated analog output signals (AO1=airflow, AO2=temperature or alarm)
- **HTN104 Transmitter:** One field selectable (BACnet MS/TP or Modbus RTU) and isolated RS-485 network connection- Individual sensor node airflow rates and temperatures are available via the network

**Airflow Alarm**
- **Type:** Low and/or high user defined setpoint alarm
- **Tolerance:** User defined % of setpoint
- **Delay:** User defined
- **Zero Disable:** Alarm can be disabled when the airflow rate falls below the low limit cutoff value (unoccupied periods)
- **Reset Method:** Manual or automatic
- **Visual Indication:** Yes, LCD display
- **Network Indication:** Yes (HTN104 only)
- **Analog Signal Indication:** Yes, on AO2 assignment (HTA104 only)

**System Status Alarm**
- **Type:** Sensor diagnostic system trouble indication
- **Visual Indication:** Yes, LCD display
- **Network Indication:** Yes (HTN104 only)
- **Analog Signal Indication:** Yes, on AO2 assignment (HTA104 only)