a measurable difference!

# SERVAIRE-E100
Product Data

## DATA CENTER CONTAINMENT RACK AIRFLOW/PRESSURE AND TEMPERATURE MONITOR


### PRODUCT HIGHLIGHTS

- Thermal dispersion technology
- Bi-directional airflow measurement
- Equivalent ΔP output capability
- Detect ΔP as low as 0.0002” H2O
- Alarm capability
- Temperature measurement
- Ethernet network connection
- Smart Sensor Detection System (SDS) continuously monitors for sensor and transmitter faults
- Server rack mounting
- Supports up to 10 simultaneous connections
- LCD display
- Dual redundant 110 VAC power supplies
- Three-year warranty
- Toll-free customer support for the lifetime of the product

### TYPICAL APPLICATIONS

- Supply air fan control
- Supply air deficiency detection
- Supply air over- pressurization detection
- Containment aisle short-circuit airflow detection

### EBTRON ADVANCED THERMAL DISPERSION TECHNOLOGY

EBTRON pioneered bead-in-glass thermistor based thermal dispersion over 40 years ago. EBTRON’s thermal dispersion technology relates the power dissipated by a self-heated thermistor to the airflow rate at one or more sensor nodes in an airstream. All EBTRON airflow monitoring systems use this time-tested thermal dispersion technology.

### MODEL DESCRIPTION

The SERVAIRE-E100 rack mount bidirectional airflow measurement device can detect very small pressure differentials (as low as 0.0002" H20) across containment zones by measuring the airflow bled across a false server. Temperature measurement of the bleed airflow path is also provided.



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## SERVAIRE-E100 TECHNICAL SPECIFICATIONS

### General

**Probe and Sensor Node Configuration**
1 bi-directional bleed sensor in a single rack mount housing

**Listings and Compliance**
**FCC:** This device complies with Part 15 of the FCC rules
**RoHS:** This device is RoHS2 compliant

**Environmental Limits**
**Temperature:** -20 to 160 ºF [-28.9 to 71.1 ºC]
**Humidity:** (non-condensing) 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-standards airflow standards (includes transmitter uncertainty)
**Calibrated Range:** -2,000 to 2,000 fpm [-10.16 to 10.16 m/s]
**Approximate Pressure Range:** -0.5 to +0.5 in. $H_2O$ [-124.54 to +124.54 Pa]
**Calibration Points:** 9

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

### Integral Transmitter

**Power Requirement:** 110 VAC @ 8V-A
**Power Redundancy:** Dual independent redundant power supplies
**User Interface:** 16-character LCD display and 4 button interface

**B.A.S. Connectivity**
**SERVAIRE-E100:** One isolated Ethernet (simultaneously supported BACnet Ethernet or BACnet IP, Modbus TCP and TCP/IP) network connection - supports up to 10 simultaneous connections

**Airflow (or Pressure) Alarm**
**Type:** Low and/or high user defined setpoint alarm
**Tolerance:** User defined setpoint
**Delay:** User defined
**Reset Method:** Manual or automatic
**Visual Indication:** Yes, LCD display
**Network Indication:** Yes

**System Status Alarm**
**Type:** Sensor diagnostic system trouble indication
**Visual Indication:** Yes, LCD display
**Network Indication:** Yes

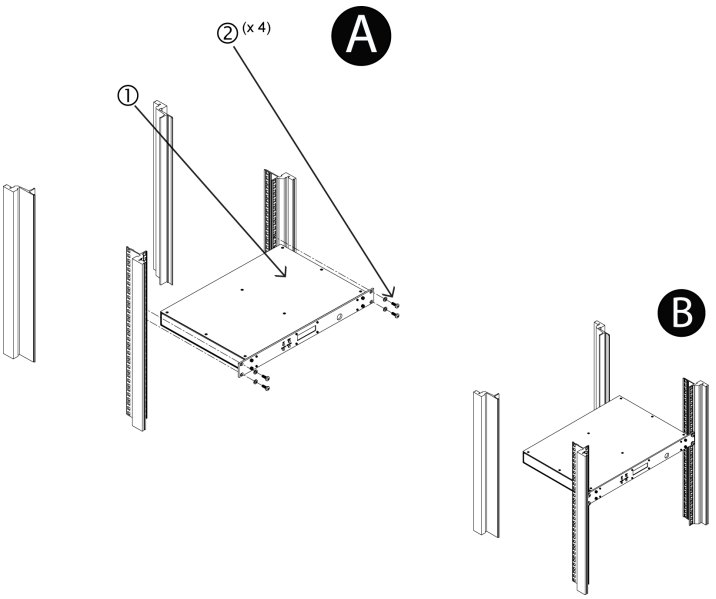
### Rack Mount Assembly

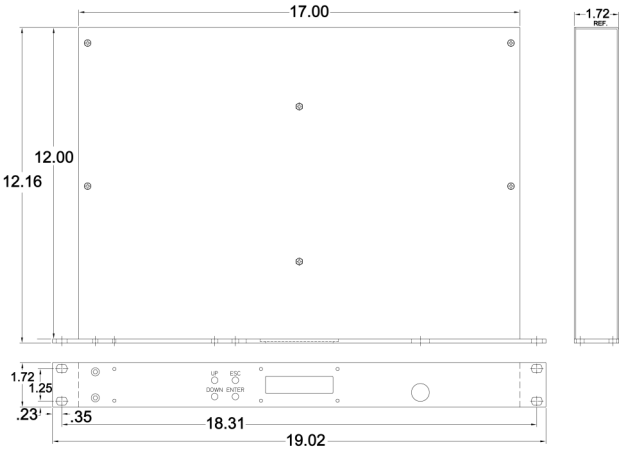
**Standard 1U Rack Height Enclosure**
1.75H x 19W x 12D in. [44.5 x 482.6 x 304.8 mm]

### SERVAIRE-E100 INSTALLATION AND WIRING

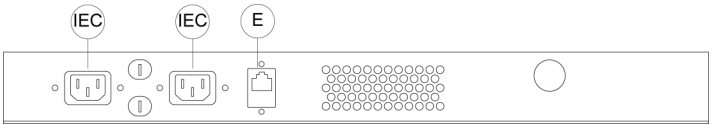
Detailed installation and wiring instructions are provided in the SERVAIRE-E100 Installation and Operation Guide.

## SERVAIRE-E100 Dimensions




## SERVAIRE-E100 - Wiring Connections




### TRANSMITTER CONNECTIONS

| Power | Ethernet |
|---|---|
| IEC | E |
| IEC Power | RJ-45 CAT5 or greater |

Use a standard RJ-45 Ethernet connection (T-568A or T-568B) and CAT-5 cable or higher.

### STARTUP

Detailed startup instructions are provided in the SERVAIRE-E100 Installation and Operation Guide.

### QUOTATIONS AND ORDERING

Use the model code SERVAIRE-E100 to request a quote or place an order. Quotations and orders are provided by your local EBTRON representative.