



FOR IMMEDIATE RELEASE

EBTRON Granted Two New Patents for Advanced Airflow and Psychrometric Measurement Technology

August 22, 2024—Loris, SC—EBTRON, a leader in airflow measurement and control solutions, is proud to announce the granting of two new U.S. and Canadian patents that further solidify the company's position as a pioneer in the HVAC industry. These patents expand EBTRON's unequalled velocity-weighted temperature measurement technology, offering significant advancements in precision and efficiency.

EBTRON's patented technology is founded upon industry-leading velocity-weighted temperature measurement. EBTRON's multi-point airflow measurement device in the airstream provides independent velocities using the innovative Bead-in-Glass (BiG) thermistor based on thermal dispersion technology. BiG thermistors provide EBTRON with the unique advantage of additionally measuring multi-point independent temperatures throughout the velocity profile. This enables the weighing of each temperature value by its point of velocity. EBTRON's hermetically sealed BiG thermistors are individually temperature calibrated against a NIST traceable standard and oven-aged for long-term stability. This approach results in an industry-leading precision of $\pm 0.15^{\circ}\text{F}$ (0.08°C) repeatable and reliable airflow temperature measurement. These advancements enable EBTRON to provide superior temperature measurement and a comprehensive velocity and temperature profile. This profile enhances control of HVAC systems and enables trend monitoring of system performance, leading to more efficient operation.

EBTRON's unparalleled temperature and velocity measurement has been combined with an optional ruggedized relative humidity sensor, allowing a single device to measure velocity, temperature, relative humidity, enthalpy, and dew point. By using velocity-weighted temperature calculations to also weigh relative humidity and enthalpy, EBTRON enhances averaging accuracy, providing superior control for VAV, Economizer, and DOAS systems. More accurate measurement and control lead to better energy savings and support building decarbonization efforts. When multiple EBTRON devices are deployed within an HVAC system, facilities gain the ability to validate energy models and assess the performance of energy transfer devices in real-time by acquiring accurate Btu/lb (kJ/kg) measurements.

Further enhancing this groundbreaking technology, EBTRON has added an onboard barometric pressure sensor, which allows for more precise enthalpy calculations. The sensor automatically adjusts volumetric airflow to account for density changes at higher altitudes, ensuring ventilation rates remain consistent with standard air conditions at sea



level. This feature enables flow rates to match air density adjustments made during load calculations and equipment selection.

With the introduction of these patented technologies, EBTRON continues to lead the industry in operational efficiency and innovation. This technology is now available on all GTx116e-PC/H models, offering unparalleled accuracy and control for modern HVAC systems.

For more information on EBTRON's latest innovations, visit EBTRON.com.

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About EBTRON

Globally, EBTRON provides industry-leading solutions for airflow measurement that offer accurate, repeatable, and long-term stability for years of reliable operation in the built environment. EBTRON introduced the first thermal dispersion airflow measuring device for HVAC applications in the early 1980s. The Company pioneered outdoor airflow measurement for ventilation, control, and monitoring. EBTRON products are U.S.-designed, engineered, manufactured, tested, and NIST traceable. They are independently verified to comply with safety and regulatory requirements. EBTRON has maintained its position as an industry leader for over 40 years through its dedication to developing new products and its dependable network of factory-trained representatives. More information is available at www.EBTRON.com.

For more information, contact Lisa Hickey via email: lisah@EBTRON.com