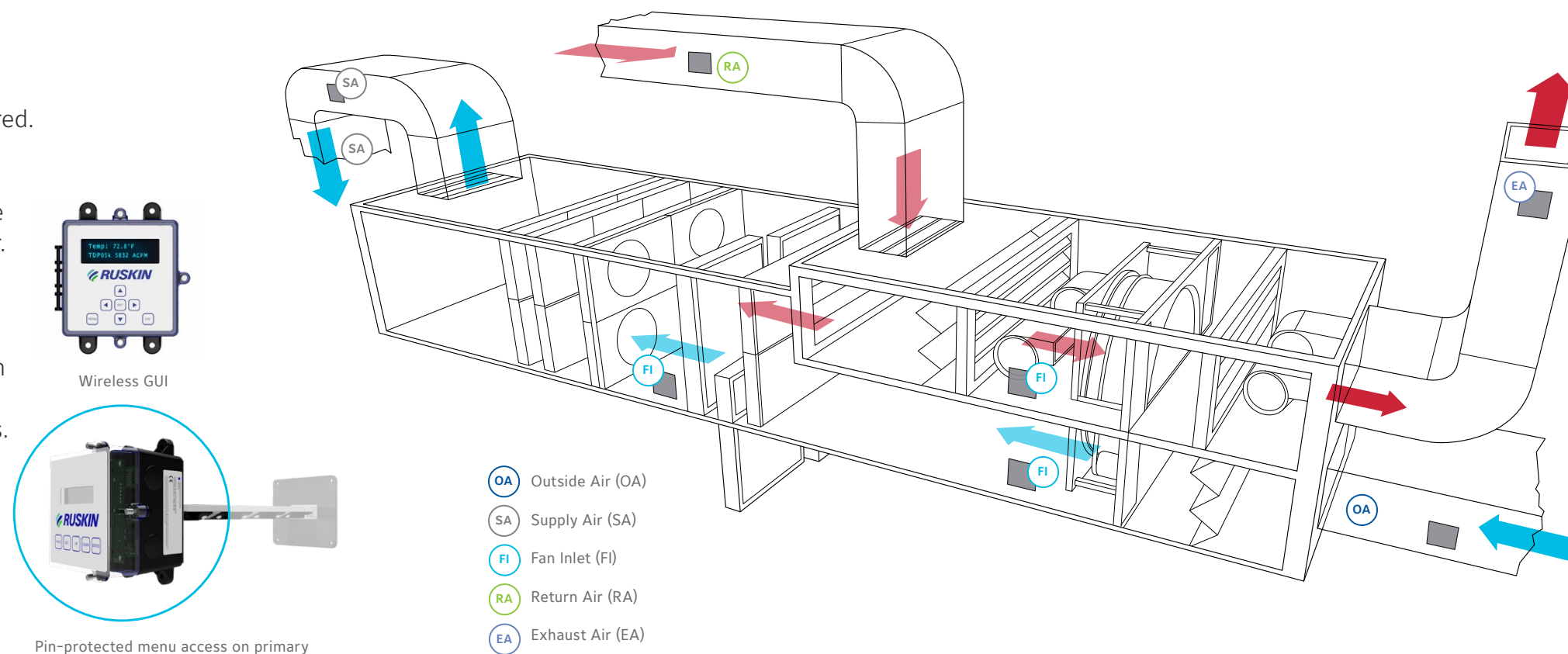


# Advanced Thermal Dispersion Airflow Measurement System (TDP05K / AIRFLOW-IQ)



## MEASURE AIRFLOW IN CUSTOM AIR HANDLING UNITS USING THERMAL DISPERSION TECHNOLOGY

The TDP05K Advanced Thermal Dispersion air measurement system is changing the way air measurement is delivered. The TDP05K has more sensing points, when required, and can make any bad location better. We've eliminated the transmitter box, fragile bead-in-glass sensors, proprietary fixed length cabling and expensive gold-plated connectors.



**Every air measurement station** has a primary. It can be located on the end of the probe, as shown above or as a separate box remotely located up to 500 feet away from the air measurement station. The primary displays airflow and temperature during normal operation and allows easy menu access without removing covers or screws. The Remote Graphic User Interface (GUI) provides the same display and menus, wired or wirelessly.

The **unique, airfoil-shaped anodized probe** ensures lower pressure drop and less noise than other probe designs. Surface mount thermistors on flexible polyimide substrate use less energy, are smaller, (collecting less dirt), are easier to clean (when necessary) and are more reliable than existing legacy products using bead-in-glass sensors. The TDP05K provides out-of-the-box accuracy, displaying CFM and temperature, when installed. No adjustments are required. A maximum of 8-sensors per probe and up to 16-probes per air measurement

station achieves the highest sensor density possible, making any bad location better.

In addition, the TDP05K's hinged, weather-resistant, vented **NEMA 1** or optional **NEMA 4** enclosure provides liquid-tight construction, preventing humidity or moisture accumulation and assures reliability for the greatest variety of indoor and outdoor applications. Probes can be installed in square, round or oval ducts and plenums.

### SPECIFICATIONS

The TDP05K is the next generation Advanced Thermal Dispersion system designed using a probe network that connects primary and ancillary probes. The TDP05K has a variety of user interface options to match the requirements of every application in the most efficient manner. Legacy transmitters with fixed length proprietary cables are a thing of the past. Thermal dispersion is a tested and proven technology that lends itself to low-velocity applications where other technologies simply will not work. Insertion mount, internally mounted or standoff mounting brackets makes it easy to retro-fit the TDP05K into existing ductwork and opening without extensive rework. The TDP05K can also be easily combined with any of Ruskin's highly specified control dampers to make the Ruskin Airflow-IQ. The Airflow-IQ is available with modulating actuators controlled by others or with controls by Ruskin to maintain the exact airflow required.

### FEATURES

- ▶ BACnet and analog output as standard
- ▶ Lowest power consumption thermal dispersion device available
- ▶ Tool-free one touch setup through surface membrane label
- ▶ Stainless steel mounting hardware
- ▶ Standard cabling, no proprietary cables
- ▶ Airfoil-shaped, acid-etch clear anodized sensing probes featuring lower pressure drop and less noise
- ▶ Highest sensor density - up to 128 sensing points! Makes any bad location better
- ▶ NEMA 1 for indoor or NEMA 4 for outdoor installations
- ▶ Synapse wireless graphic user interface is optional
- ▶ Third-party verified FCC, UL, BTL, AMCA and ISO 9001



*Innovation  
made simple.  
Easy to install  
and use.*

## SPECIFICATIONS

### AIRFLOW-IQ WITH CONTROLS BY RUSKIN®

To accomplish air measurement and damper control via a BACNet or analog interface specify the Ruskin Air measurement actuator VAFB24BAC, with spring return or VAMB24BAC to maintain last command position on power failure. The air measurement actuator has a built-in controller and does not require another control box or wiring from another controller to the actuator. Single-point power and automation interface is right on the damper. The air measurement actuator's built-in web server is designed to be easily configured using any web browser. No special software is required.

On-site information that may not have been available when the Airflow-IQ was ordered, like design set point, max expected air flow MAC address baud rates etc. can be added or changed by the installing controls contractor to meet ever-changing job requirements. Ruskin has changed the way air measurement is done, setting a new standard with unmatched features and performance. Specify Ruskin's TDP05K advanced thermal dispersion system or Airflow-IQ combining air measurement and the industries' highest quality control dampers in a single package.

#### AIRFLOW-IQ FEATURES

- ▶ TDP05K Advanced thermal dispersion flow and temperature measurements
- ▶ Built-in web server
- ▶ Network interface via BACNet IP or MS/TP
- ▶ Any Ruskin Control Damper
- ▶ Factory-mounted and wired; no field assembly required
- ▶ Single point 24-volt power connection
- ▶ Built-in trending: short term, 31 days, or long term, 13 months



Contact *Ruskin*® for assistance selecting the options and features for TDP05K and AIRFLOW-IQ to fit your application needs.

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