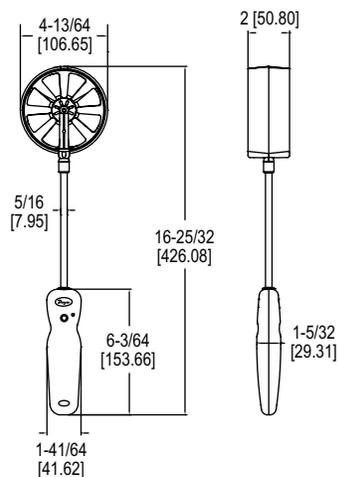




## Model VP3 Wireless 100 mm Vane Thermo-Anemometer Probe

### Specifications - Installation and Operating Instructions



The **Model VP3 Wireless 100 mm Vane Thermo-Anemometer Probe** measures air velocity, air flow, humidity, and temperature with the UHH4 or newer universal handheld device, or your own mobile device. By having a larger diameter, the rotating vane is able to measure velocities down to 50 FPM or 0.25 m/s. An arrow is molded into the vane housing to depict the flow direction.

Wireless probes can take measurements up to 50 feet away from the base unit. A bicolor LED flashes on the handle of the probe to indicate communication status with the base unit. The battery is rechargeable via the mini-USB connector on the bottom of the probe.

#### NOTICE

This device complies with Industry Canada license-exempt RSS standard(s). Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

Cet appareil est conforme à des règlements d'Industrie Canada exempts de licence standard RSS (s). Son fonctionnement est soumis aux deux conditions suivantes: (1) Ce dispositif ne doit pas causer d'interférences nuisibles, et (2) cet appareil doit accepter toute interférence reçue, y compris les interférences pouvant entraîner un fonctionnement indésirable.

**This Class B digital apparatus complies with Canadian ICES-003.**

**Cet appareil numérique de la classe B est conforme à la norme NMB-003 du Canada.**

#### CHARGING BATTERY

#### NOTICE

It is required prior to the initial usage to charge the battery for 12 hours.

When the charge of the battery is almost used up, the LED on the handle of the wireless probe will turn solid red. There is approximately 5 minutes of battery life left at this point. If the probe is not already paired to the UHH, it will not pair while in low battery condition.

- Step 1: Open the USB cover on the bottom of the probe handle.
- Step 2: Plug the mini-USB connector end of the cable into the probe handle.
- Step 3: Plug the USB connector end of the cable into the port on the charger or PC.
- Step 4: Plug the charger into either an electrical outlet or car charging port (LED on the charger and the handle should both light up).
- Step 5: The LED on the handle will turn off when fully charged.
- Step 6: Remove charger from electrical outlet.
- Step 7: Remove USB connectors from the handle and the charger.
- Step 8: Replace the USB cover on the bottom of the probe handle.

#### SPECIFICATIONS

**Service:** Clean air.

**Temperature Limits:** Process: -20 to 212°F (-29 to 100°C); Ambient: 5 to 125°F (-15 to 51°C).

**Range:** Air velocity: 40 to 5000 FPM (0.25 to 25 m/s); Temperature: -20 to 212°F (-29 to 100°C); Relative humidity: 0 to 100% RH; Air volume: 999,999 in selected units.

**Accuracy:** Air velocity: ±1.5% of reading ±20 FPM (±0.1 m/s) [0.25 to 10 m/s]; ±1.5% of reading ±40 FPM (±0.2 m/s) [10 to 20 m/s]; ±1.5% of reading ±60 FPM (±0.3 m/s) [20 to 25 m/s]; TABKIT VP3: 100 to 3900 fpm: ±5% of reading ±7 fpm (0.5 to 20 m/s: ±5% of reading ±0.04 m/s); Temperature: ±0.9°F@77°F (±0.5°C @ 25°C); Relative humidity: ±2% @ 77°F (25°C) [10 to 90% RH]; ±4% [0 to 10, 90 to 100% RH].

**Response Time:** Air velocity: 1 s; Temperature: 1.5 s; Relative humidity: 1.5 s; Air volume: 1 s.

**Probe Length:** 8" (203 mm) insertion.

**Power Requirements:** 3.7 V YT562447 lithium ion battery, installed functional, user replaceable.

**Battery Charging Limits:** 32 to 113°F (0 to 45°C).

**Maximum Wireless Distance:** 50' (15 m).

**Vane Material:** Anodized aluminum.

**Handle Enclosure:** Thermoplastic elastomer over polycarbonate.

**Supplied With:** Wrist strap.

**Weight:** 13.6 oz (402.20 g).

**Supported Devices:** UHH4 or newer universal handheld, and smart devices that support Bluetooth® LE (Bluetooth® Low Energy).

**Supported Operating Systems:** Android® firmware version 3.X or later.

**Compliance:** CE (not while charging), FCC compliant.

#### WARNING

Lithium ion polymer batteries are very volatile and can cause a fire if punctured or severely damaged. Only use a Dwyer Instruments, Inc. approved charging device in a well ventilated area away from any flammable materials or gases. Do not incinerate the battery. Only charge between 32 to 113°F (0 to 45°C).

#### USING MOBILE METER® APP

To use the wireless probe with a personal device not supplied by Dwyer Instruments, Inc. you must first download the Mobile Meter® app. Once installed, the wireless probes can be connected by following the directions below.

#### USING WIRELESS PROBE

To power the probe on press the button on the handle once. The LED on the probe will change according to the below key.

Flashing Red - Probe is in pairing mode.

Flashing Green - Probe is connected to a mobile device.

To power the probe off press and hold the button on the handle until the LED turns off.

## CONNECTING TO WIRELESS PROBES

1. Verify that the universal handheld, UHH4 or newer, or device has Bluetooth® technology turned on and is within range. Open the Mobile Meter® app by clicking on the icon.
2. Press "Without Mobile Gateway".
3. Power on wireless probe.
4. Once discovered, the probe name will appear on the device screen.
5. Select the check box next to the desired probe name(s).
6. Press the back arrow to return to probe list, selected probes will connect automatically.

### NOTICE

It is recommended that only four probes be selected due to the bandwidth limitations.

## ACCESSORIES

To maximize the usefulness of the VP3, an optional cone kit (A-VPX-CKIT) is available. A round 7.2 in (183 mm) diameter hood and a rectangular 10.9 x 8.9 in (277 x 226 mm) hood are included in the kit. The cones are able to convert the VP3 into an air volume flow balancing tool for use with small grilles and diffusers.



## FCC/INDUSTRY CANADA NOTICE

### NOTICE

This device complies with Part 15 of the FCC rules. Operation is subject to the following two conditions: (1) This device may not cause harmful interference, and (2) this device must accept any interference received, including interference that may cause undesired operation.

This equipment has been tested and found to comply with the limits for a Class B digital device, pursuant to Part 15 of the FCC Rules. These limits are designed to provide reasonable protection against harmful interference in a residential installation. This equipment generates, uses, and can radiate radio frequency energy and, if not used in accordance with the instructions, may cause harmful interference to radio communications. However, there is no guarantee that interference will not occur in a particular use case. If this equipment does cause harmful interference to radio or television reception, which can be determined by turning the equipment off and on, the user is encouraged to try to correct the interference by one or more of the following measures:

- Reorient or relocate the receiving antenna.
- Increase the separation between equipment and receiver.
- Connect the equipment to an outlet on a circuit different from that to which the receiver is connected.
- Consult the dealer or an experienced radio/TV technician for help.

### NOTICE

This device complies with Industry Canada license-exempt RSS standard(s). Operation is subject to the following two conditions:

1. This device may not cause harmful interference;
2. This device must accept any interference received, including interference that may cause undesired operation of the device.

### CAUTION

Pursuant to FCC 15.21 of the FCC rules, changes or modifications not expressly approved by Dwyer Instruments, Inc. may void the user's authority to operate the equipment.

## RF NOTICE

### NOTICE

This product complies with FCC OED Bulletin 65 and Industry Canada's RSS-102 radiation exposure limits set forth for an uncontrolled environment.

### NOTICE

This Class B digital apparatus complies with Canadian ICES-003.

### CAUTION

The antenna used for this transmitter must maintain a separation of at least 20 cm from all persons and must not be co-located or operating in conjunction with any other antenna or transmitter.

### AVIS

Cet appareil est conforme à Industrie Canada une license standard RSS exonérés (s). Son fonctionnement est soumis aux deux conditions suivantes:

1. Cet appareil ne doit pas provoquer d'interférences,
2. Cet appareil doit accepter toute interférence reçue, y compris les interférences pouvant provoquer un fonctionnement indésirable de l'appareil.

### AVIS

Ce produit est conforme aux limites d'expositions aux rayonnements définies pour un environnement non contrôlé du Bulletin 65 FCC OET et RSS-102 Industry Canada.

## INFORMATION TO THE USER

Power Output: 6 mW

Operating Frequency: 2.4 GHz

Operating Mode: IEEE 802.15.4, BLE, Direct Sequence Spread Spectrum

Data Rate: Up to 250 kbps

Intended Use: Industrial/commercial HVAC

Antenna Connection: Internal only, non-tunable

## BATTERY REMOVAL

If, for some reason, the wireless probe needs to be returned to Dwyer Instruments, Inc. for maintenance or repair, the rechargeable lithium ion battery needs to be removed prior to shipping the unit. Before attempting to remove the battery ensure the probe has been powered down. To remove the battery, set the wireless probe face down on a non-abrasive surface. There are four Phillips head screws that secure the two halves of the handle together. Two are located under the serial number label at the top of the probe and two are located at the bottom of the unit. When lifting the ends of the serial label to access the screws be careful to not damage the label such that the serial number cannot be read. Remove the four screws with a suitable Phillips screw driver and set aside the back half of the housing. Remove the battery by grasping the black plastic connector on the battery wire harness and pull straight out while securing the black plastic connector on the circuit board with the other hand. Be careful to not puncture the battery as this may cause a fire. Remove the battery and set aside. Securely replace the four screws to hold the handle of the probe together. The unit may now be packaged for shipping back to Dwyer Instruments, Inc.

## MAINTENANCE/REPAIR

Upon final installation of the Model VP3, no routine maintenance is required. The Model VP3 is not field serviceable and should be returned if repair is needed. Field repair should not be attempted and may void warranty.



This symbol indicates waste electrical products should not be disposed of with household waste. Please recycle where facilities exist. Check with your Local Authority or retailer for recycling advice.

## WARRANTY/RETURN

Refer to "Terms and Conditions of Sales" in our catalog and on our website. Contact customer service to receive a Return Goods Authorization number before shipping the product back for repair. Be sure to include a brief description of the problem, plus any additional application notes.

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Bluetooth® is a registered trademark of Bluetooth SIG, Inc.