



SP555 Vane Air Velocity Smart Probe

Test Products International, Inc.

Measures Air Velocity and Temperature;
calculates CFM (Volume)

Connects to mobile device and uses the
TPI View App

Perform average air velocity and air vol-
ume tests

3 Year Limited Warranty



Download the TPI View App

Download the TPI View app from the Apple® app store or the Google® play store to begin using your smart probe.



**Uses a vane sensor for accurate
air velocity measurements.**

Test the TPI Advantage

Visit www.testproductsintl.com

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A. INTRODUCTION

1. Congratulations: Thank you for purchasing TPI products. The SP555 is easy to use and built to last. It is backed by a 3 year limited warranty.
2. Product Description: The SP555 is a vane velocity “Smart Probe”. It connects to your mobile device and uses the TPI View App to display air velocity, CFM, and temperature readings.

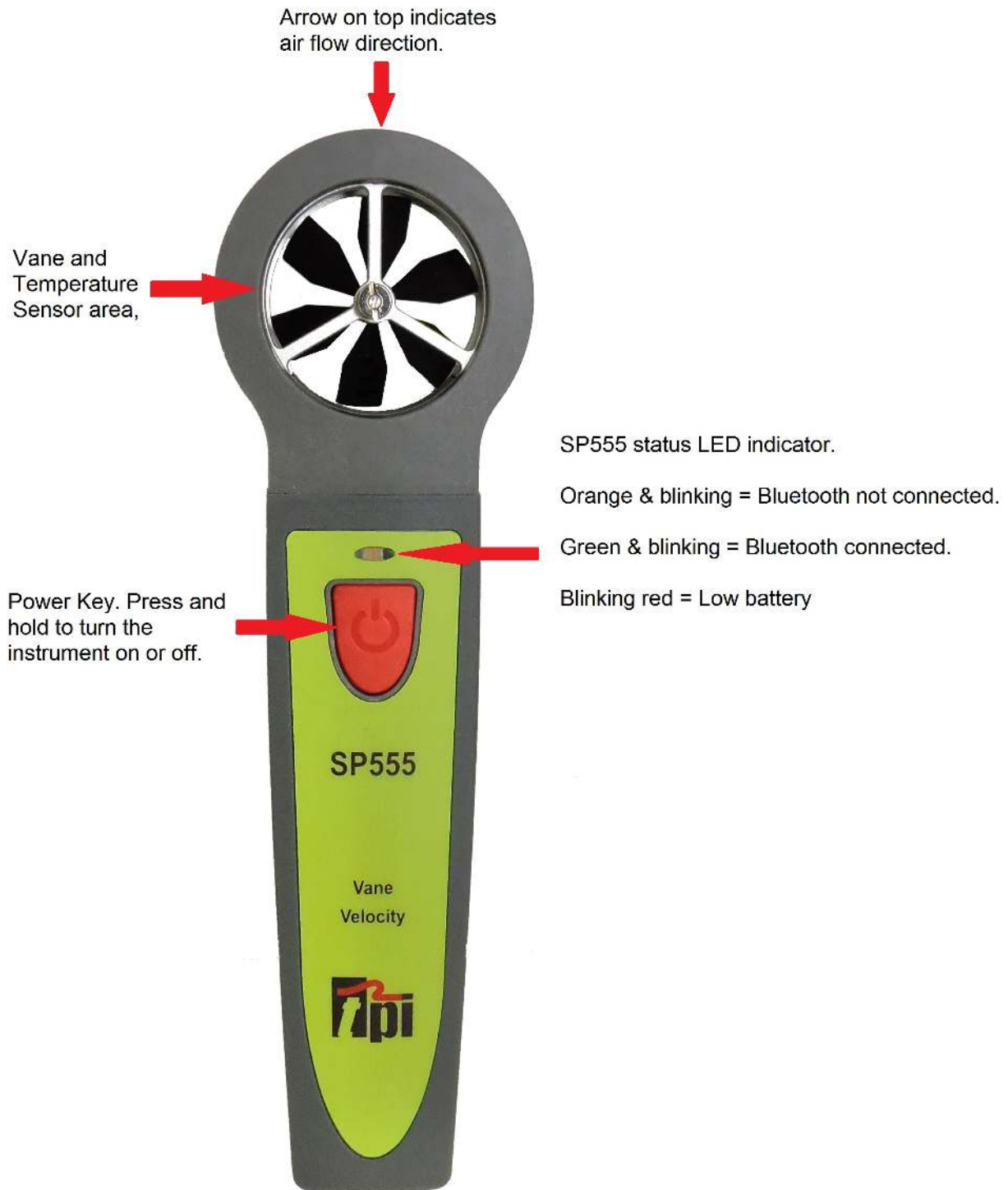
B. SAFETY CONSIDERATIONS

1. Never insert the sensor into hot air.
2. Never allow a foreign object into the sensor cage. The sensor may be damaged.
3. Do not expose the unit to damp environments for extended periods of time.

C. SPECIFICATIONS

SP555 Smart Probe Air Velocity Meter Specifications	
Sensor Type	Vane
Air Velocity Measurement Range	98 ft/min to 4900 ft/min (0.5 m/s to 25 m/s)
Air Velocity Accuracy	+/- (2% of rdg + 59 fpm) or +/- (2% of rdg + 0.3 m/s)
Resolution	2 ft/min / 0.1 m/s
Temperature Measurement Range	-4°F to 122°F (-20°C to 50°C)
Temperature Accuracy	+/- 1°F (0.5°C) (32°F to 113°F / 0°C to 45°C) +/- 2°F (1°C) (<32°F (0°C) and >113°F (45°C))
Units of Measure	m/s, km/s, ft/min, miles/hr, knots/hr
Operating Temperature	-4°F to 122°F (-20°C to 50°C)
Communication	Bluetooth version 4.2 (Use with TPI Smart Probe App) FCC ID: QOQBGM113 IC: 5123A-BGM113 209-J00204 
Battery Type	AAA x 3
Battery Life	60 hours typical
CFM Calculation	Performed via TPI Smart Probe App

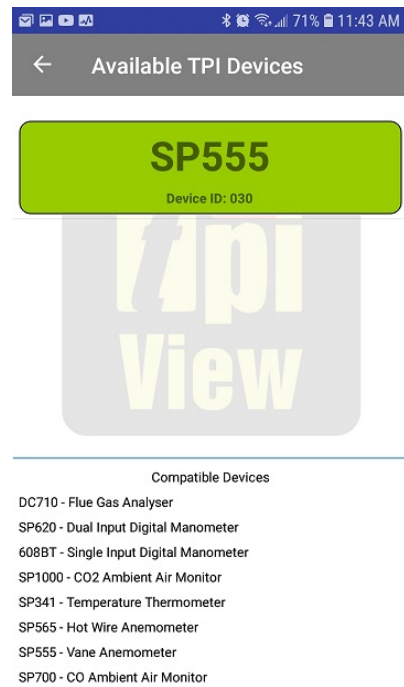
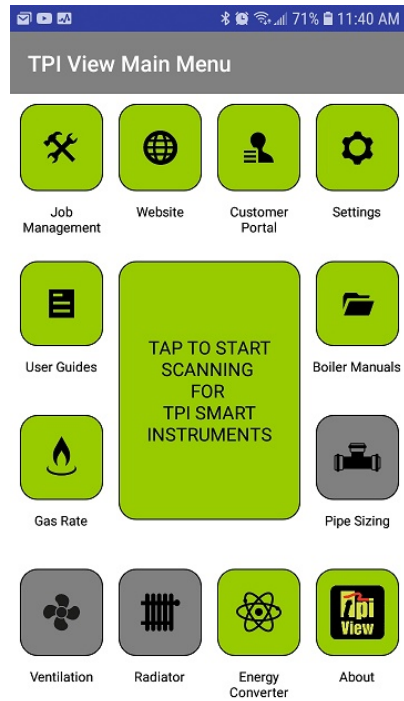
D. INSTRUMENT OVERVIEW



E. TAKING A MEASUREMENT

1. Download and install the TPI View App onto your mobile device. Run the App. Select the region for your area. The Main Screen will be displayed. Press and hold the SP555 On/Off key down until it turns on. Tap on "Tap to start scanning for TPI smart instruments" to discover the 555.

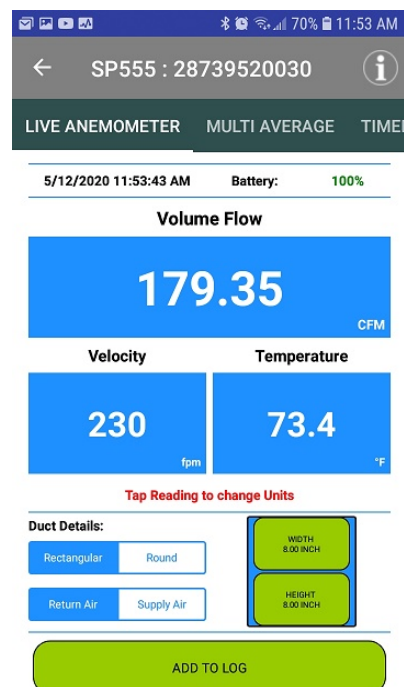
2. Tap on SP555 to connect to the SP555. The LED indicator will turn Green and blink to indicate a link has been established.



The Live Anemometer screen will display in the App.

The Volume Flow, Velocity, and Temperature will be displayed. Tapping on a reading will change the unit of measure.

The bottom area allows you to select the type of duct and the size of the duct. The size of the duct is required to calculate and display the Volume Flow.



F. ADDITIONAL APP FEATURES

1. Swiping left at the top of the app allows access to the multi average and timed average functions. This allows traverse measurements to be made to obtain the average air velocity, flow, and temperature.



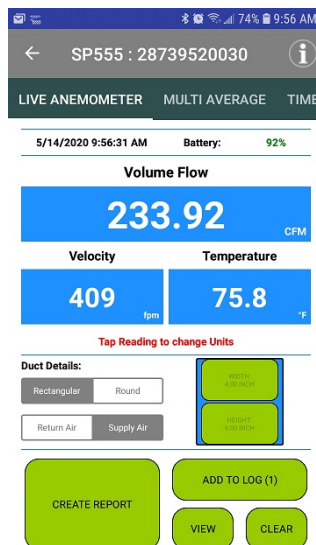
2. Tapping “Duct Details” allows the duct type (round or rectangular) and size to be set. This must be done to display air flow (CFM).

Tapping the displayed readings changes the unit of measure.



3. The TPI View App includes a job management feature. Readings can be saved as a job with customer information and reports can be emailed as necessary.

Reports can also be printed from your smart device using the optional A740BT Bluetooth printer.



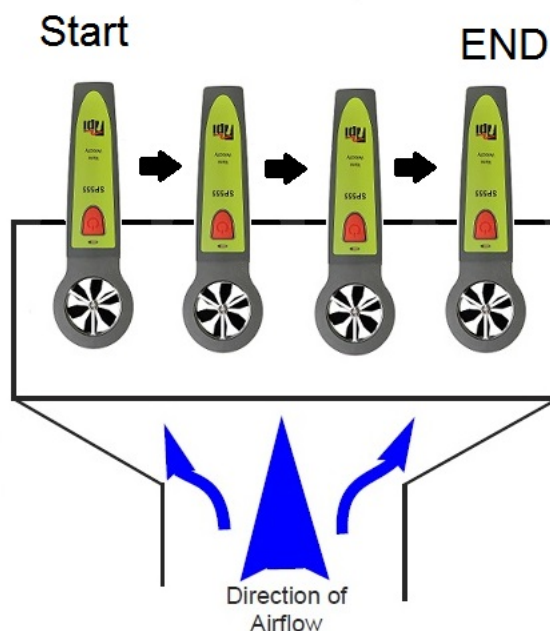
G. AIR VOLUME MEASUREMENT - TRAVERSING GRILLS

To do a proper airflow measurement (CFM) you should do traverse readings to obtain the true average airflow through the grill. There are two ways to perform this test using the SP555, Timed Average Traverse and Multi Average Traverse. Time based is typically easier but both are explained in the next sections.

Time Average Traverse

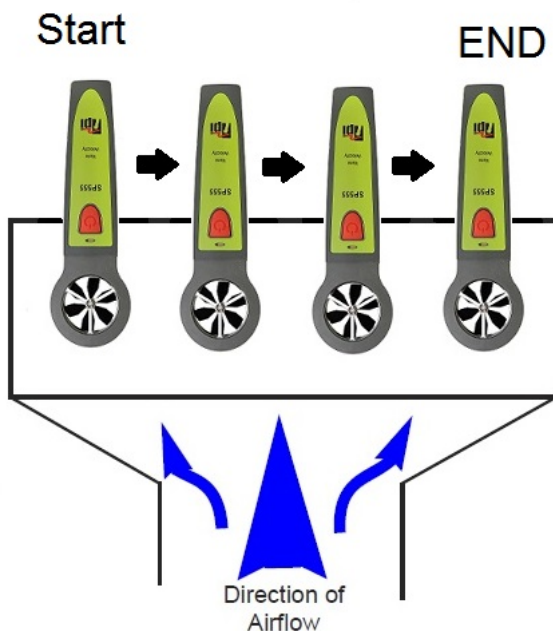
1. Turn the SP555 on and connect it to the TPI View App.
2. Select Timed Average in the TPI View App. Determine the type and size of the duct (grill) and enter it into the View App.
3. Position the SP555 at one end of the grill. The arrow on top of the SP555 indicates the direction it should be oriented in the air flow.
4. Tap "Start Test" to begin the traverse test.
5. Move the SP555 along the grill from one end to the other. Once you reach the end tap "Stop Test". (See Picture Below)
6. The average air velocity, air flow (CFM), and temperature will be displayed.
7. A report can be created and data can be saved to a job by tapping on "Create Report".

Note: Pause can be tapped to pause testing and then continued. This can be used if the SP555 needs to be re-positioned during the test. This can be helpful for large grills.



Multi Average Traverse

1. Turn the SP555 on and connect it to the TPI View App.
2. Select Multi Average in the TPI View App. Determine the type and size of the duct (grill) and enter it into the View App.
3. Position the SP555 at one end of the grill. The arrow on top of the SP555 indicates the direction it should be oriented in the air flow.
4. Tap "Start Test" to begin the traverse test.
5. Move the SP555 along the grill from one end to the other stopping at test points. Once stopped tap "Add to Average" to add the reading to the overall average readings. **NOTE: Stop every inch or so. The more readings you add to the average the more accurate the average will be.** Once you reach the end tap "Stop Test". (See Picture Below)
6. The average air velocity, air flow (CFM), and temperature will be displayed.
7. A report can be created and data can be saved to a job by tapping on "Create Report".



Stop at each test point and tap "Add To Average". The more test points added the more accurate the average will be.

H. MAINTENANCE

1. Clean the surface of the instrument with a damp cloth.
2. Replace the three AAA batteries when the low battery indicator appears. (See page 8)

I. TROUBLE SHOOTING

<u>Symptom</u>	<u>Probable Cause</u>
Velocity seems inaccurate.	<ul style="list-style-type: none">• Low battery.
SP565 does not turn on.	<ul style="list-style-type: none">• Dead or low batteries.• Not holding down power switch until unit turns on.• Defective POWER ON switch.
Air velocity readings seem low	<ul style="list-style-type: none">• Dead or low batteries.• Protective hood not open all the way.• Sensor not turned completely into the air stream.

J. ACCESSORIES

Included Accessories

<u>Part Number</u>	<u>Description</u>
A555SP	Soft pouch

Optional Accessories

<u>Part Number</u>	<u>Description</u>
A925	Carrying case for 4 smart probes
A926	Carrying case for 1 or 2 smart probes

K. WARRANTY

This product is warranted to the purchaser against defects in material and workmanship for three years from the date of purchase.

Covered by Warranty: Repair parts and labor; or replacement of the product at company's option. Normal transportation charges to the purchaser are also covered.

Not Covered by Warranty: Damages to the product which are the result of abuse, improper use or maintenance are not covered. Any other expense, consequential damages, incidental damages, or incidental expenses including damages to property are not covered. Transportation expenses to the company are not covered.

Some states do not allow the exclusion or limitation of incidental or consequential damages, so the above limitations or exclusions may not apply to you.

To Obtain Warranty Performance: Include with the product: your name, address, phone number, written description of the problem and proof of purchase date. Carefully package and return to:

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West Sussex RH10 6AQ England
44(0) 1293 530196
www.tpieurope.com

Implied Warranties: Any implied warranties including implied warranties of merchantability and fitness for a particular purpose, are limited in duration to three years from date of purchase. To the extent any provision of this warranty is prohibited by federal or state law and cannot be preempted, it shall not be applicable. This warranty gives you specific legal rights, and you may also have other rights which vary from state to state.

L REPLACING BATTERIES

1. Turn the battery compartment screw counter clockwise until it is just above the compartment door. Lift on the screw to open the compartment.



2. Replace the three AAA batteries.



3. Re-install the battery cover and tighten the screw by turning it clockwise.

NOTES

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