



# SP565 Hot Wire Air Velocity Smart Probe

**Test Products International, Inc.**

**Measures Air Velocity and Temperature;  
calculates Air Flow (Volume)**

**Connects to mobile device and uses the  
FREE TPI View app or TPI Smart Probes  
app**



View App



**Perform average air velocity and air  
volume tests**

**3 Year Limited Warranty**

**Uses hot wire sensor for  
accurate air velocity  
measurements.**

## Test the TPI Advantage

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## A. INTRODUCTION

1. Congratulations: Thank you for purchasing TPI products. The SP565 is easy to use and built to last. It is backed by a 3 year limited warranty.
2. Product Description: The SP565 is a hot wire air velocity “Smart Probe”. It connects to your mobile device and uses the TPI View App to display airflow & temperature readings. Reports can be saved and e-mailed or shared from the app.

## 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

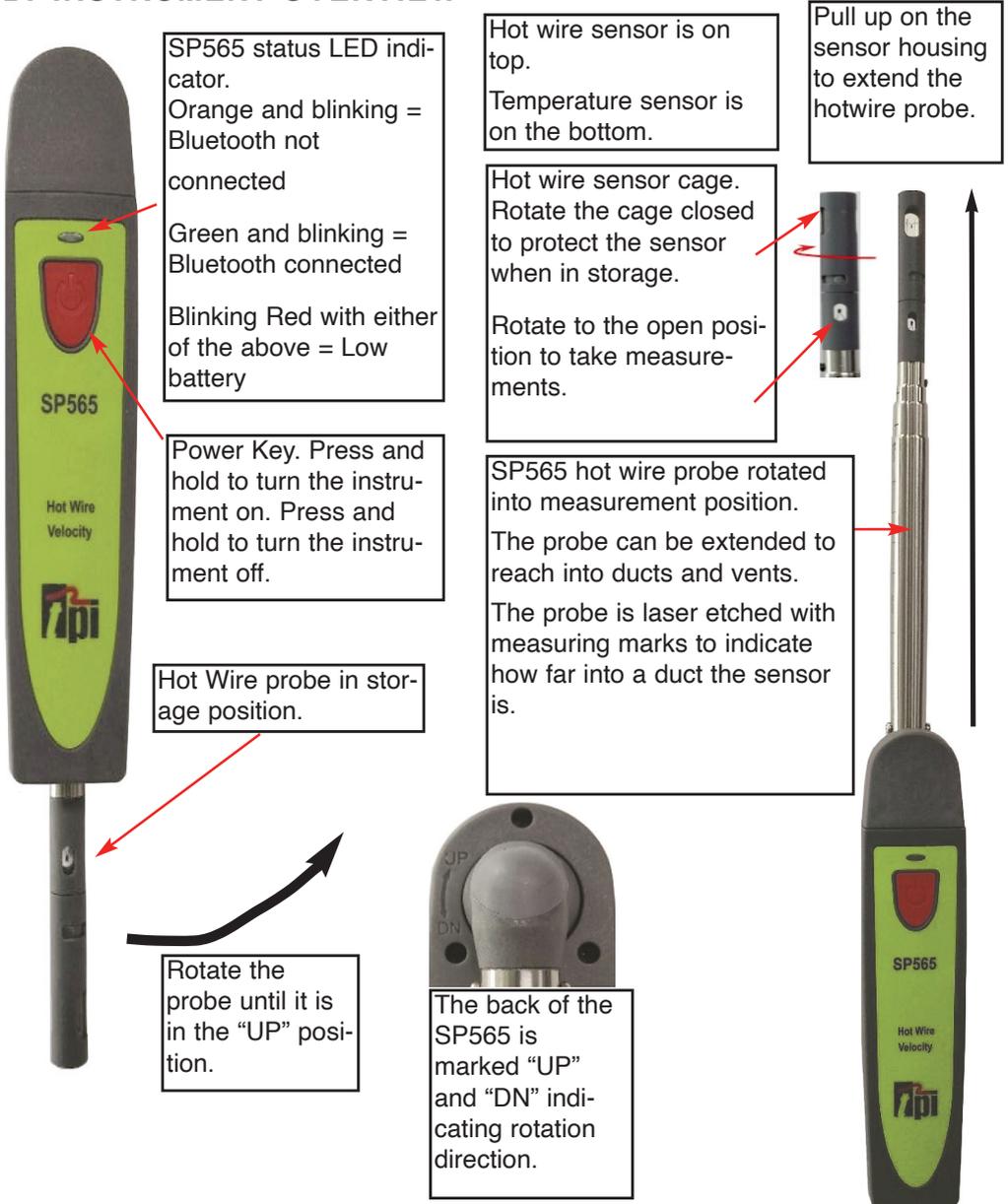
SP565 Smart Probe Air Velocity Meter Specifications	
Sensor Type	Hot wire
Air velocity Measurement Range	40 ft/min to 3900 ft/min (0.2 m/s to 20 m/s)
Air Velocity Accuracy	+/- (5% of rdg + 10 digits) or +/- (1% FS + 10 digits)
Resolution	2 ft/min / 0.01 m/s
Temperature Measurement Range	-40°F to 140°F (-20°C to 60°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)
Battery Type	AAA x 3
Battery Life	14 hours typical
CFM Calculation	Performed via TPI Smart Probe App

The SP565 has been tested with the following standards and is in compliance with the council RED directive 2014/53/EU: -

EN 62479:2010  
EN 61326-1:2013  
EN 61010-1:2010  
ETSI EN 301 489-17 V3.1.1(2017-02)  
ETSI EN 301 489-1 V2.1.1 (2017-02)  
ETSI EN 300 328 V2.2.0 (2017-11)

The relevant certificate can be viewed, downloaded and printed from the TPI website at the following address: -  
[www.tpieurope.com/wp-content/uploads/2019/11/SP565-Certificate-of-Conformity.pdf](http://www.tpieurope.com/wp-content/uploads/2019/11/SP565-Certificate-of-Conformity.pdf)

## D. INSTRUMENT OVERVIEW



### Using the Rotating Hotwire Probe

1. Take the hotwire probe and rotate it to the "UP" position (see A above).

The back of the SP565 is marked to indicate the rotation direction for "UP" and "DOWN" (see B above).

2. The hotwire probe can then be extended like an antenna. Pull up on the sensor housing to extend the probe (see C above).

3. Reverse these steps when storing the SP565.

## E. TAKING A MEASUREMENT

1. Download and install the TPI View App onto your mobile device. Run the App.

The “Main Menu” screen will be displayed.



2. Press and hold the SP565 On/Off key down until it turns on. The LED indicator will initially be orange and blink.

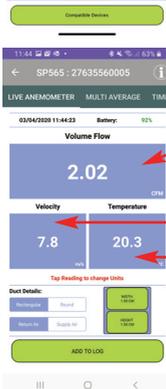
The SP565 will now be visible in the visible to connect to. Press on the SP565 on the View app list that you wish to connect to. The LED indicator will turn Green and blink to indicate a link has been established. The App will display the model and ID number of the smart probe connected.



Click to connect

Rotate the SP565 probe into the “UP” position. Turn the cage cover so the sensor is exposed.

The air velocity and temperature will be displayed.

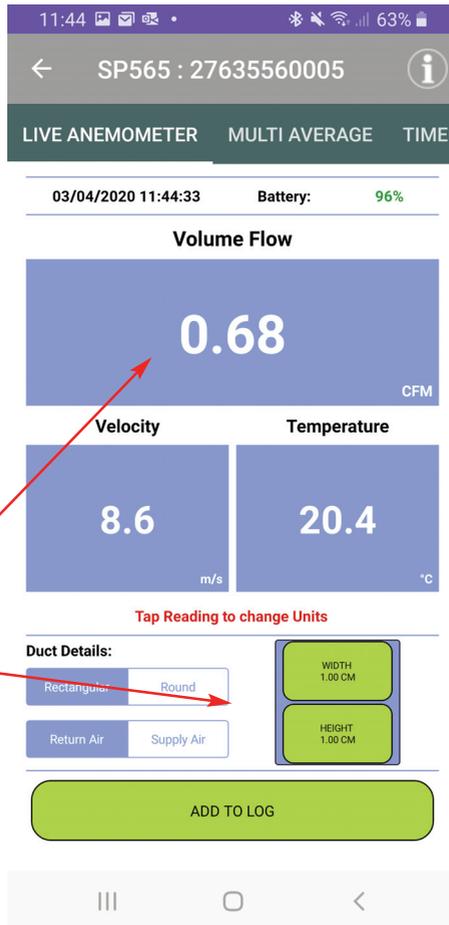


Displays the calculated Volume Flow.

Displays the measured air velocity and temperature.

## F. PERFORMING AIR VOLUME (FLOW) TEST

The View App allows you to perform air volume measurements by adjusting the Duct Details below.



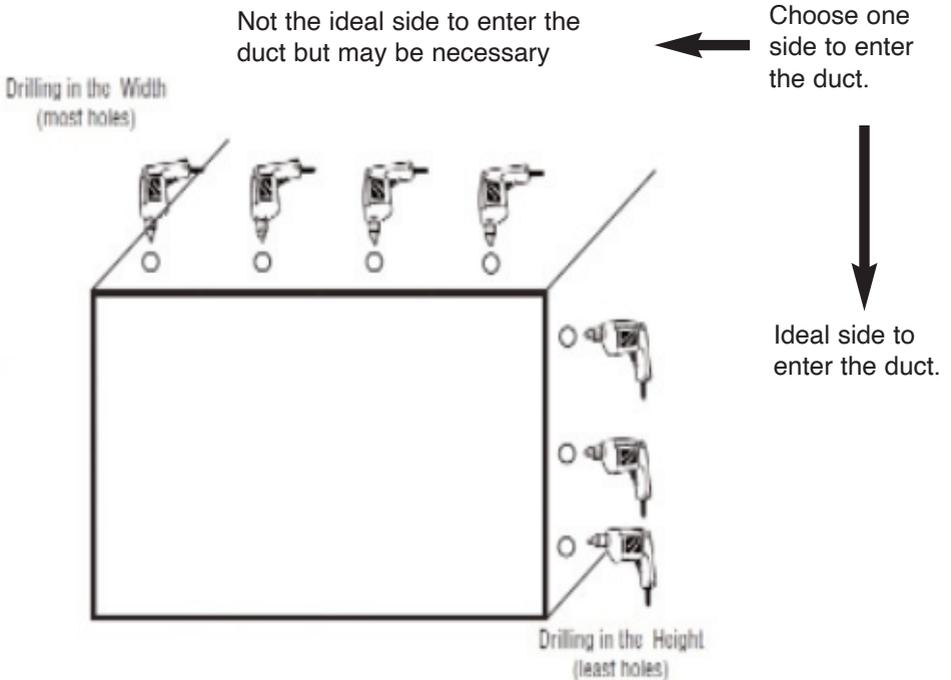
1. Adjust duct details to calculate Volume Flow.

## G. AIR VOLUME MEASUREMENT - TRAVERSING RECTANGULAR DUCTS

### Preparing to Traverse a Rectangular Duct

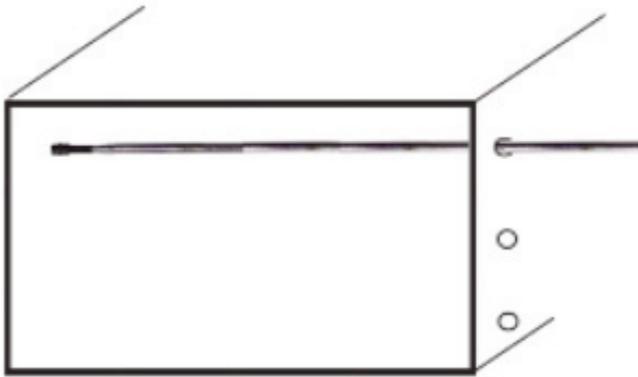
To do a proper airflow measurement (CFM or CMM) you should do traverse readings to obtain the true average airflow through the duct. It is recommended to do at least 12 points of measurement. There are two ways to perform this test using the SP565, Time Based Traverse and Spot Based Traverse. Time based is typically easier but both are explained in the next sections.

1. You will need to determine the easiest access to take your readings. Normally it is best to enter from the side (Height) of the duct since you will have to drill less holes, but you may have to drill from the bottom (Width) of the duct. See below.



## H. TIME BASED TRAVERSE - RECTANGULAR DUCT

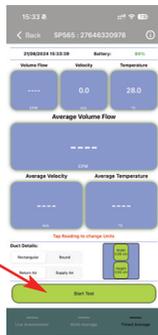
1. Prepare the duct as outlined on page 5 and connect the SP565 to the App as outlined on page 3.
2. Set the App up to measure Air Flow and enter the duct type and size as outlined in section 4.
3. Insert the hotwire probe all the way into the duct at the first hole. Make sure the open area of the sensor is facing into the air flow. HINT: If you turn the probe you will see the readings change up or down, when the reading is at the highest you are in the proper position.



4. Select “Timed Avg.”

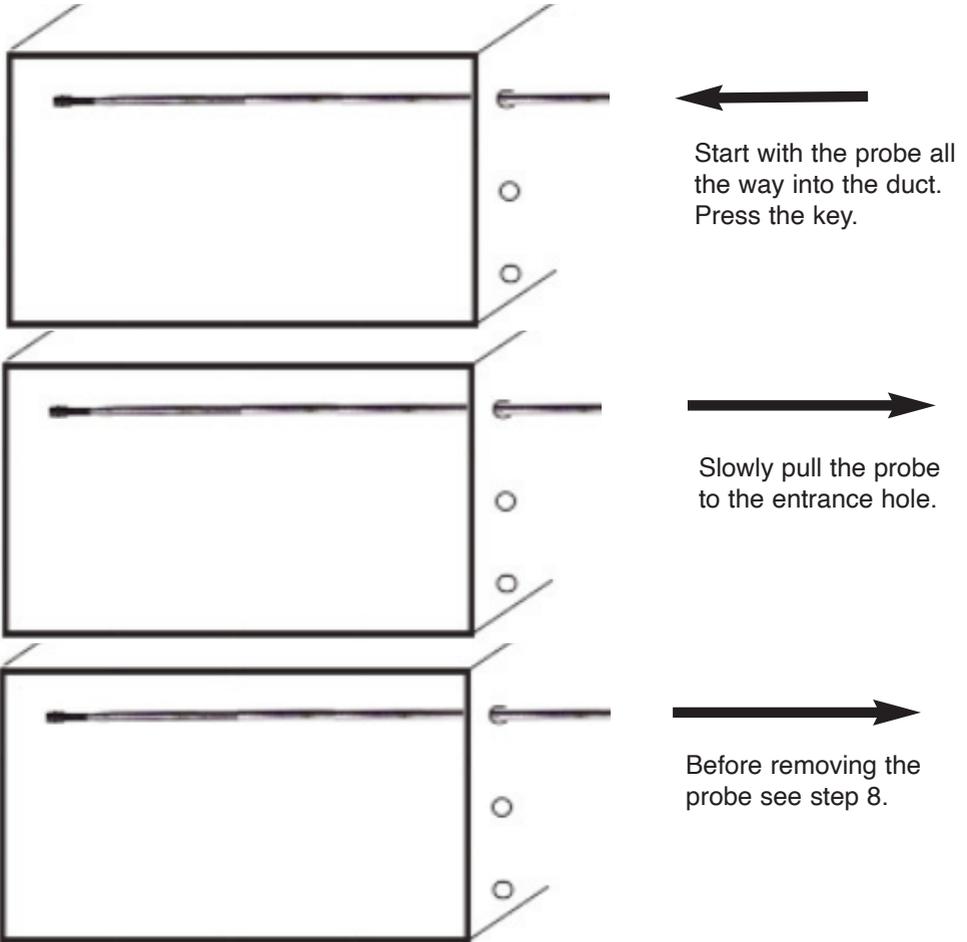


5. Once you've entered the correct Duct Details tap the “Start Test” icon to begin the test process.



## H. TIME BASED TRAVERSE - RECTANGULAR DUCT (Continued)

6. Slowly pull the probe towards the entrance point of the duct.

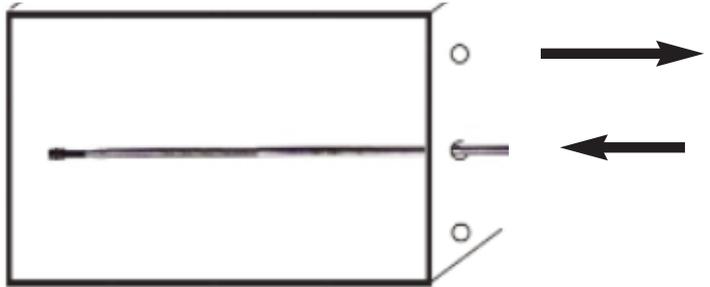


8. Stop at the last measurement point prior to pulling the probe out of the duct. Press the "Pause" icon to pause the recording.



## H. TIME BASED TRAVERSE - RECTANGULAR DUCT (Continued)

9. Pull the probe out and insert it into the next test hole all the way into the duct.



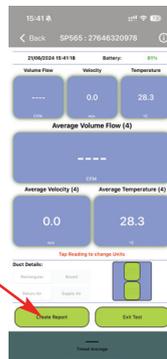
10. Press the “Continue” icon to begin recording. Repeat these steps for all test holes.



11. When the duct has been completely traversed and prior to pulling the probe out of the last test hole, press the “Stop” icon.

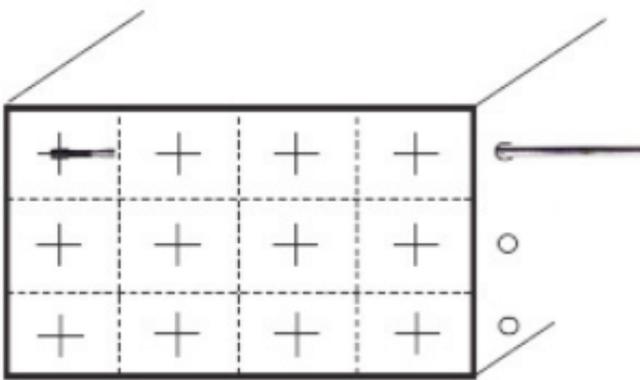


12. Tap “Create Report” and save this to the required Job



# I. POINT BASED TRAVERSE - HORIZONTAL DUCT

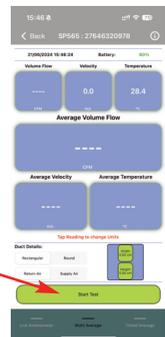
1. Prepare the duct as outlined on page 5 and connect the SP565 to the App as outlined on page 3.
2. Set the App up to measure Air Flow and enter the duct type and size as outlined in section G.
3. Divide the duct into at least 12 equal boxes, you will need to take the reading in the center of each box. Be sure that the sample points are no more than 4 inches apart from center to center. If needed you can add more sample points (boxes) to cover larger duct sizes. Insert the hotwire probe all the way into the duct at the first hole. Make sure the sensor is facing the air flow.



1. Select "Multi Avg."

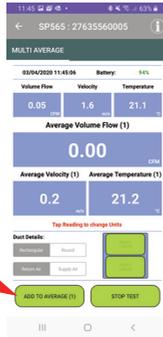


2. Once you've entered the correct Duct Details tap the "Start Test" icon to begin the test process..

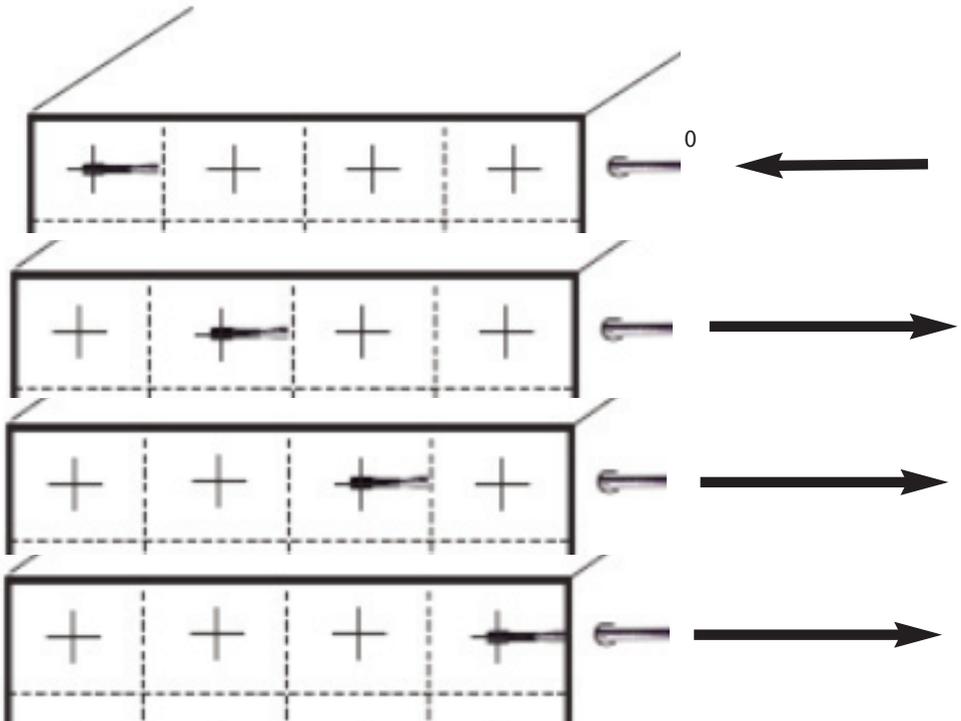


# I. POINT BASED TRAVERSE - HORIZONTAL DUCT (continued)

3. Press the “Add To Average” icon to record the reading. The number of readings will increase by one (in brackets).

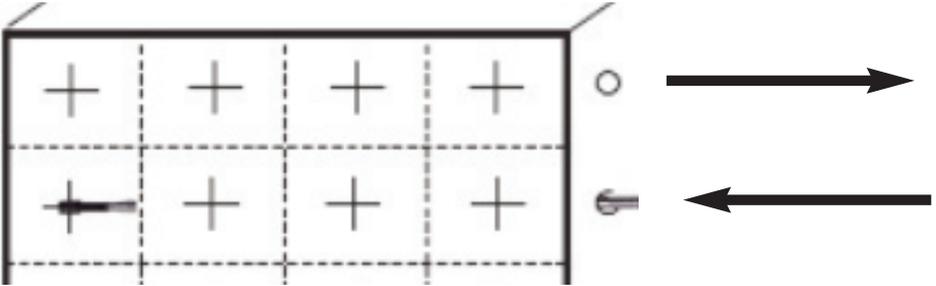


7. Slowly pull the probe towards the entrance point of the duct. Stop at each point and press the “Point” icon to record the reading.



# I. POINT BASED TRAVERSE - HORIZONTAL DUCT (continued)

8. Pull the probe out and insert it into the next test hole all the way into the duct. Repeat this process until the duct is completely traversed.



8. When the duct has been completely traversed tap the “Stop” icon to store the readings.



9. Tap “Create Report” and save this to the required Job

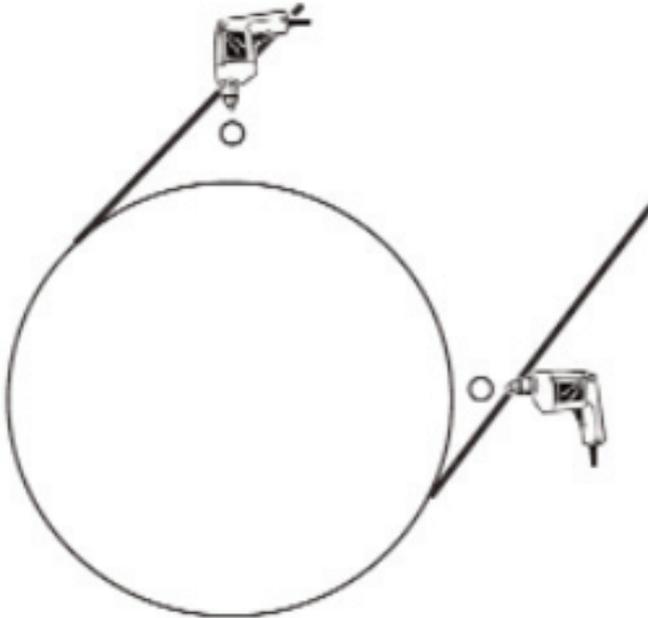


## J. AIR VOLUME MEASUREMENT - TRAVERSING ROUND DUCTS

Traversing a round duct is very similar to traversing a horizontal duct. The preparation of the duct is slightly different. When traversing a round duct the traverse must be made vertically and horizontally.

### Preparing the Duct

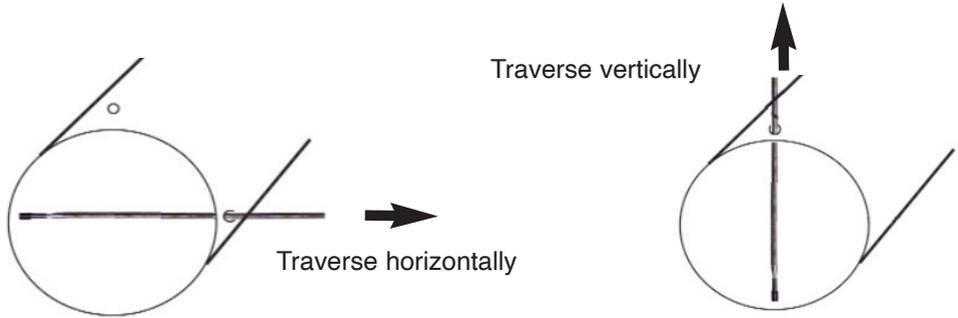
You will need to drill 2 holes at 90 degrees to each other, similar to the drawing below.



## J. TRAVERSING A ROUND DUCT (continued)

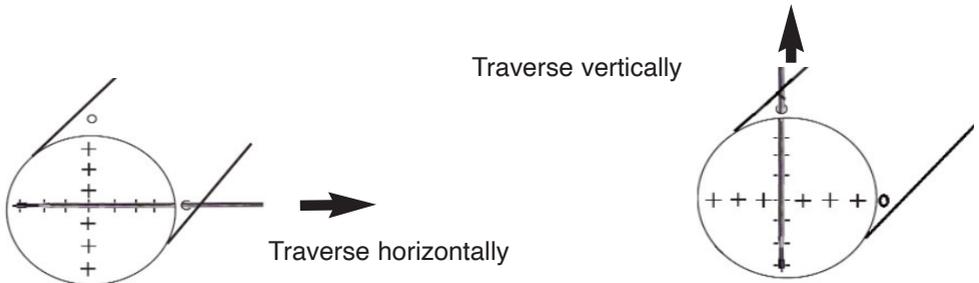
### Time Based Traverse

1. Prepare the duct as outlined on page 12.
2. Traverse the duct both horizontally and vertically (see below). Use the instructions on pages 8 through 10 substituting a round duct for the horizontal duct.



### Point Based Traverse

1. Prepare the duct as outlined on page 12.
2. Traverse the duct both horizontally and vertically (see below). Use the instructions on pages 9 through 11 substituting a round duct for the horizontal duct.



## K. MAINTENANCE

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

## L. TROUBLE SHOOTING

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### Symptom

### Probable Cause

**Temperature seems inaccurate.**

- Low battery.
- Non K-Type probe being used.
- Ensure connection with phone is working.

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**SP565 does not turn on.**

- Dead or low batteries.
- Not holding down power switch until unit turns on.
- Defective POWER ON switch.

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**Air velocity readings seem low**

- Dead or low batteries.
- Protective hood not open all the way.
- Sensor not turned completely into the air stream.

## M. ACCESSORIES

### **Included Accessories**

<u>Part Number</u>	<u>Description</u>
A565SP	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

## N. 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:

**TPI, Inc.**  
9615 SW Allen Blvd.  
Beaverton, OR 97005

**USA**  
503-520-9197  
www.testproductsintl.com

**TPI Canada**  
342 Bronte Rd. S., Unit 6  
Milton, Ontario L9T 5B7

**Canada**  
905-693-8558  
www.tpicanada.com

**TPI, Europe Ltd..**  
Unit 6 Rutherford Way Ind. Est  
Rutherford Way, Crawley

**West Sussex RH10 (LN 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.

## O. REPLACING BATTERIES

1. Adjust the air probe so it is out of the way of the battery compartment.



2. Replace the three AAA batteries.



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

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

# NOTES

The SP565 has been tested with the following standards and is in compliance with the council RED directive 2014/53/EU: -

# CE DOC

## Declaration of Conformity

We

**SUMMIT**

58, Gaetbeol-ro, Yeonsu-Gu, Incheon, Korea

DECLARE ON OUR SOLE RESPONSIBILITY THAT THE PRODUCT

**KIND OF EQUIPMENT** : Hot Wire Velocity

**TYPE-DESIGNATION** : SP565

This EC-Declaration of conformity is following the provisions of EMC DIRECTIVE 2014/30/EU, RED DIRECTIVE 2014/53/EU.

It is confirmed that a sample of the product has been tested and found in conformity with below standard(s):

**EMCD** EN 300 328 V2.2.2  
EN 301 489-1 V2.1.1

**EMC** EN 301 489-1 V2.2.3  
EN 301 489-17 V3.2.4

Detailed specification of the tested product shown in the following test Report(s):

**RF Test Report** : 300271-1-4  
**RF Test Report** : 288405-2-2  
**CE Test Report** : KES-EM240529

Date of issue : 21, March, 2024

Authorized By :





# Thank You!!!!



## & Welcome to the TPI Family

We really appreciate you coming onboard, if you aren't already, and look forward to serving you over the next few years, and beyond. For the best experience head over to [www.tpieurope.com](http://www.tpieurope.com), create your account and register your product.

### Benefits include:

- Everything in one place
- Create service, calibration and warranty/repair requests
- Download certificates
- Contact sales, support and customer service
- Read correspondence from TPI including Service updates
- Manage your order history
- Shop Online for accompanying products and spares delivered direct to your door

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Twitter: @TPIEuropeLTD



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