

Air Velocity Meter Tpi580

User Guide



1. Features

- ✓ Hot wire / Vane Combo unit.
- ✓ Smart probe : Interchangeable probe.
- Probe hot wire/vane auto recognition.
- ✓ CFM / CMM Measurement (Volume calculate)
- ✓ Backlight
- ✓ Bluetooth LE / Apps for Android / iOS (Model : Tpi580BT Only)
- ✓ Auto power off (15 min)

2. Function and Accuracy

Function	Description	
Hotwire Air	Range	0.2 m/s ~ 20 m/s
	Resolution	0.01 m/s
	Accuracy	±(5% + 1digit) or ±(1% + 1digit) F.S
	Unit	m/s, km/h, mph, fpm
Vane Air	Range	1 m/s ~ 25 m/s
	Resolution	0.1 m/s
	Accuracy	±(2% + 3digit)
	Unit	m/s, km/h, mph, fpm
Temperature	Range	-20 °C ~ 60 °C (-4 °F ~ 140 °F)
	Resolution	0.1 °C (0.1 °F)
	Accuracy	± 0.5 °C (0 °C ~ 45 °C)
		± 1 °C (-20 °C ~ 0°C, 45°C ~ 60°C)
		± 1 °F (32 °F ~ 113 °F)
		± 2 °F (-4 °F ~ 32°F, 113°F ~ 140°F)
Others	Airflow(volume) calculate	CFM, CMM.
	REC, HOLD	MIN, MAX, AVG, Data HOLD
	Operation environment	-20 °C ~ 60 °C (-4 °F ~ 140 °F) at <75%RH
	Communication	Bluetooth LE (Tpi580BT only)
	Battery	4.5V (AA size x 3)
	Battery life time	Hot air probe : about. 30h Vane air probe : about. 68h
	Auto power off	15 min (if APO is active)

3. Key



: On / Off (Push it more than 2 sec.)



: Air Velocity unit (m/s, km/h, fpm, mph, knots) , Volume unit (CMM,CFM),
Temperature unit (°C, °F), Area unit (in², cm², m², ft²)



: Record mode (Time record mode, Point record mode), MAX , MIN , AVG



: Backlight On / Off (Backlight Auto off 60 Sec.) ** (Tpi580BT Only = Bluetooth Model -
Bluetooth feature On / Off to push it more than 2 sec.)



: SET mode: Up feature. General mode: Data Hold



: SET mode: Down feature. General mode: Auto power On/Off enable / disable
General mode: Save the air velocity and air volume between 0 ~ 299.



: SET mode: Left feature



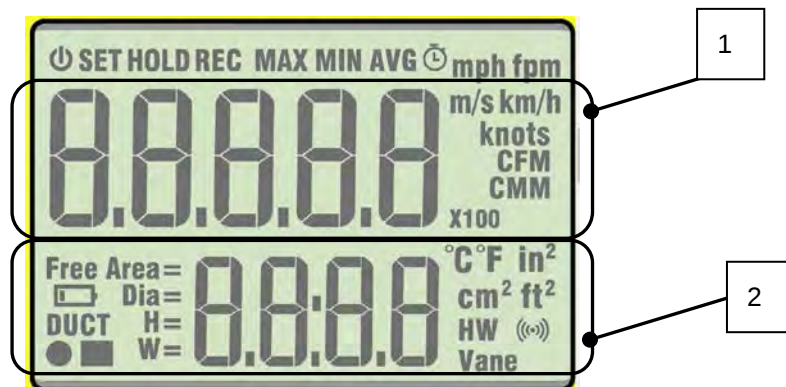
: SET mode: Right feature. General mode: Display the saved value between 0 ~ 299.



: SET mode: Feature setting (Enter).
General mode: Transfer from Air Velocity measurement to Volume (CMM,CFM) measurement.
Push it again and transfer to Air Velocity measurement.

** For key feature to work, hot wire probe or vane probe must be connected. Backlight and power Key always work.

4. LCD display



- 1: Air velocity and air volume display.
- 2: Enter the temperature and DUCT. Display time and Point when the Record feature started.
- Auto Power Off feature on/off
- Low Battery display
- Bluetooth on – Blink. Bluetooth connect – Display continuously.

-  CMM or CFM measurement – Display x1, x10, x100. 9999900 CMM, 9999900 CFM
-  Record
-  DUCT: Round DUCT setting. Record: Point Record setting.
-  Hot wire probe
-  Vane probe

5. Measurement

- Power on to push the Power key for more than 2 sec. (Display All → Model#)
- oPEn displays when the probe is not connected.
- Only back light key and power key work in this condition.
- Connect the Hot wire probe and display 'H—d'.
Main screen: Inverse counting for 5 sec → Hot wire warming up on Hot wire probe.
H -- d : Hotwire warming up Delay
- Vane Probe connect → Display the air velocity without delay.
- Measure the air velocity.

6. UNIT setting

- Push the UNIT key.
- SET display. Display the Air velocity unit. Change the unit to push the UP, Down key.
- Push the Right key when the right unit blinks. CMM, CFM blink next and change to push the Up, Down key.
- Push the Right key when the right unit blinks. The temperature unit blink next and change to push the Up, Down key.
- Push the Right key when the right unit blinks. The area unit blink next and change to push the Up, Down key.
- Push the Enter key and set the unit.

7. Record

- Push the REC key.
- SET display. Choose Point or Time to push the Up / Down key.
- Choose Time , Point to push the Enter key.
- Time: Push the Enter key and capture the measurement value at 1 sec interval.
(Start / Stop the capture with the Enter key.)
- Point: Capture with each Enter key.
- Record mode: MAX → MIN → AVG with REC key.
- Record data is cleared when you push the Left key on Record Stop.
- Transfer from Record mode to General measurement mode to push the REC key more than 2 sec.

8. DUCT setting

- Push the DUCT key.
- Choose Free Area , Rectangle , Circular with the Up / Down key.
- Set to push the Enter Key.
- Choose the value with Up / Down , Left / Right key.
- Set to push the Enter key.

**** Push the Enter key on general air velocity measurement mode and it changes to air volume measurement.**

Duct size max value
Unit cm : 9999
Unit m : 99.99
Unit ft : 99.99
Unit in : 999.9

**** The max value is saved if the unit changed value is higher than max value.**

9. Memory (0 ~ 299)

Measure the air velocity and air volume on general mode or Record mode.

- Push the MEM key.
 - CaptureTpi580 and Memory mode displays. (Data save mode)
- Choose the address with the arrow key (left, right, up, down).
- Push the Enter key.
 - Tpi580 saves the captured data to the selected address.
 - End the Memory mode. Now it is measurement mode.

When you save the measurement value on Record mode, it can be saved on Stop and saves the average value.

* Memory All Clear *

Push the MEM key more than 2 sec on Memory mode and Clear starts.
When Clear is done, the display changes to general measurement mode.

* Escape / Cancel *

The work is done with the UNIT key on Memory mode and Recall mode and now it is general measurement mode.

**** Memory mode is not working on "OPEN".**

**** It can't recall when you recall the address without saved data.**

10. RECALL (0 ~ 299)

- Push the RCL key.
 - Choose the Recall address with the left, right, up, down key.
 - Push the Enter key.
 - Display the saved value.
- Recall: "HOLD" and " REC" display.
 - Velocity / Volume display with Enter key.
 - You can check the Duct size and type with Bluetooth.