



MEASURE



MANAGE

2020 HVACR Catalog

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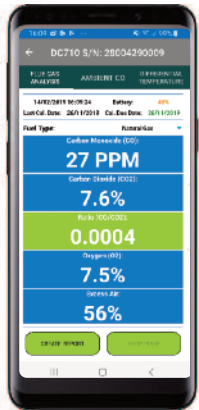
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Scan for FREE
TPI View App



COMBUSTION



DC710C1 measures CO & O2, while the app calculates CO2, ratio & efficiency. Measures dual temperatures for flow & return or radiator balancing.

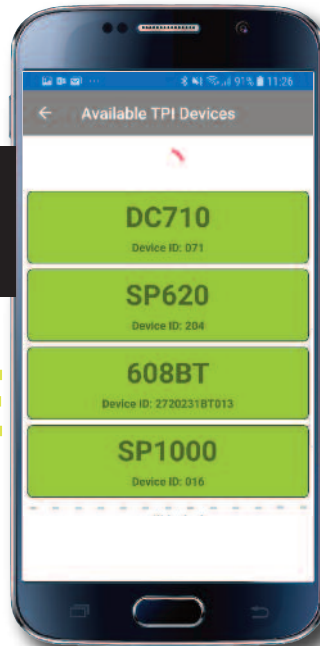
Measure & Manage: Simple as 1. 2. 3.

- 1. Connect Your Device** (smartphone or tablet, Android or iPhone). Simply select the instrument you'd like to use from the list of available TPI Tools.
- 2. Measure & View Readings.** Test results are easy to understand and available in table or graph form depending on the measurement parameters.
- 3. Manage the Data.** Every report created is color coded and includes data, time & GPS locations. Easily save, email, print!

Scan the code. Get the TPI View App!



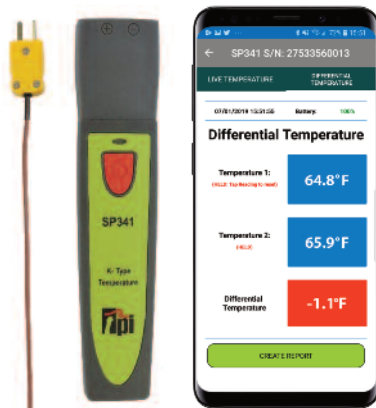
GET IT DONE



MEASURE IT. MANAGE IT. DOCUMENT IT.

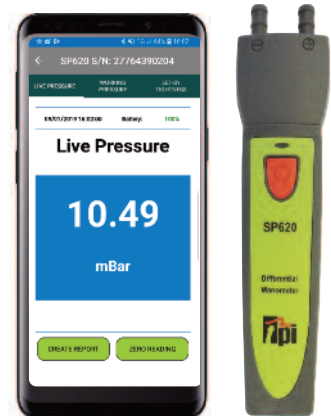


TEMPERATURE



SP341 use with *any* sub-mini, K-type temperature probe to measure and view "live" temperature readings. Use two SP341 Smart Probes to measure differential. Ambient, contact, and immersion probes are all available, see page 15. Can be field calibrated when using a liquid temperature probe.

PRESSURE



SP620 measure and view seven units of pressure. Test duct pressure, perform static pressure checks. Adjust appliance regulators, set delivery pressures, measure pressure drop and more!



CO & CO2

SP700 Carbon Monoxide probe to easily check ambient CO in work and living spaces - remotely!

SP1000 Carbon Dioxide probe to easily check ambient CO2 in work and living spaces - remotely!



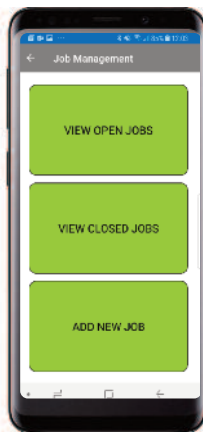
Built-in Bluetooth, Android & iPhone Compatible Tools Save You Time & Money. AND they are EASY to USE!



| | SP341 | SP555 | SP565 | SP620 | SP700 | SP1000 | DC580 Series | DC710 Series |
|--|-------------|---------------------------------|------------------------------------|-----------------------|-------------------------|------------------------|---|---|
| Measurement | Temperature | Vane Air Velocity & Temperature | Hotwire Air Velocity & Temperature | Differential Pressure | Ambient Carbon Monoxide | Ambient Carbon Dioxide | Vane & Hotwire Air Velocity & Temperature | Combustion Gas Analyzer; CO, O2, Calculates CO2 |
| Featured on Page | 16 | 13 | 13 | 10 | 13 | 13 | 13 | 5 |
| App Functionality Only | Yes | Yes | Yes | Yes | Yes | Yes | No | Yes |
| Display | No | No | No | No | No | No | Yes | No |
| Android Compatible | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| iPhone Compatible | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Compatible with A740BT Bluetooth Printer through TPI View App | Yes | Yes | Yes | Yes | Yes | Yes | No | Yes |

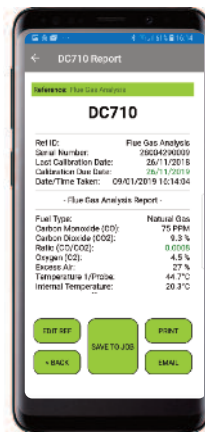
| | | | | | | | | |
|--|--|----------------------------|----------------------------|--|----------------------------|-----------------------------|--|---|
| Part Numbers and Accessories included with Instrument | <p>SP341: Pouch & GK41M probe.</p> <p>SP341C1: Pouch & FK13M probes.</p> <p>SP341C2: Pouch & GK16M probes</p> | <p>SP555: Pouch</p> | <p>SP565: Pouch</p> | <p>SP620: Pouch.</p> <p>SP60C1: Pouch, tubing, adapter & brass fitting</p> | <p>SP700: Pouch</p> | <p>SP1000: Pouch</p> | <p>DC580C1: Hotwire probe & case.</p> <p>DC580C2: Vane probe & case.</p> <p>DC580C3: Hotwire & Vane probes & case</p> | <p>DC710C1: flue probe, charger, temperature probe and case.</p> <p>DC710C2: SP620C1 pressure meter, flue probe, charger, temperature probe and case.</p> <p>DC710C3: A740BT Bluetooth printer, flue probe, charger, temperature probe and case.</p> |
|--|--|----------------------------|----------------------------|--|----------------------------|-----------------------------|--|---|

Job Management allows you to create multiple JOBS and attach multiple reports from different TPI Smart Instruments to each JOB.



Create jobs before or after you start taking readings.

Give each report a unique name or reference.



Save to a JOB, print, or email - or do all 3, it's your choice!

Save to an existing JOB or create a new one.



Add new reports or view already attached reports.



Customer's signature appears on ALL reports.



Verified documentation for future use.

All reports are PDF files with signatures, date, time, and GPS.

Why Choose:

708
Affordable, work-horse analyzer.

709
High resolution differential manometer for high efficiency and oil equipment.

DC710C1
Remote operation with FREE TPI App and your smartphone. Affordable and efficient data management. Smart O2 & CO field replaceable sensors.

716
High resolution differential manometer for high efficiency and oil equipment. Combustible gas leak detector.

716N
NOx emission contributes to air pollution. Measuring NOx levels is a vital step in compliance practices.

717
Offers field replaceable Smart CO Sensor and Smart O2 Sensor.

Accessories & Kits:

All TPI Analyzers & Detectors on pages 4 and 5 include: carrying case, standard probes, batteries, and charger as applicable, unless otherwise stated.

See available kits and accessories on pages 6 & 7.

TPI Combustion Analyzers Offer:

- +/-5 PPM Accuracy below 100 PPM for ambient CO testing.
- 10,000 PPM CO Sensor to protect against oversaturation, and to clear & zero faster.
- The CO sensor used in TPI combustion analyzers features an on-board filter capable of filtering NO (nitric oxide) NO2 (nitric dioxide) and NOX (combination of NO and NO2) to prevent cross sensitivity errors.
- Wide range of accessories available to customize your kit.
- Quick & Simple Setup.



Combustion Gas Analyzer Maintenance*

| | |
|---|--|
| General Maintenance & Calibration | \$60.00 *This service includes pump cleaning and complete systems check. Replacement parts and certificate of calibration are extra costs and not included in \$60 charge. |
| Standard Sensor Replacement (O2/CO Sensor) | \$110.00 per sensor installed & calibrated. *This service includes pump cleaning and complete systems check. Additional cost for NIST traceable certificate of calibration. 2 Year Sensor Warranty. |
| Smart Sensor Replacement (O2/CO Sensor) | \$149.95 per sensor installed & calibrated. *This service includes pump cleaning and complete systems check. Additional cost for NIST traceable certificate of calibration. 2 Year Sensor Warranty. |
| Nitric Oxide Sensor Replacement | \$225.00 per sensor installed & calibrated. *This service includes pump cleaning and complete systems check. Additional cost for NIST traceable certificate of calibration. 2 Year Sensor Warranty. |
| Pump Assembly Replacement | \$35.00 Installed |

*Prices subject to change without notice.



Combustion Gas Analyzers

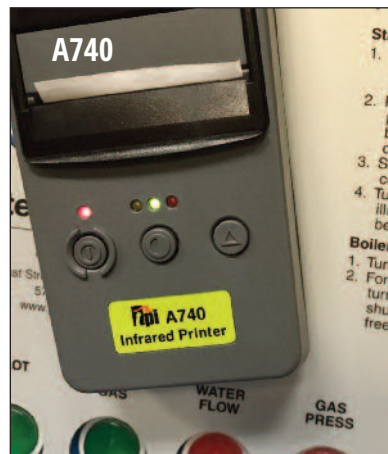


| | 708 | 709/709R | DC710C1 | 716 | 716N / 716NHC | 717/717R |
|--|----------------|----------------|-------------------------|----------------|--|----------------|
| O2 | 0 to 25% | 0 to 25% | 0 to 25% | 0 to 25% | 0 to 25% | 0 to 25% |
| CO | 0 to 10K PPM | 0 to 10K PPM | 0 to 10K PPM | 0 to 10K PPM | 716N: 0 to 10K PPM; 716NHC: 0 to 100K PPM | 0 to 10K PPM |
| CO2 | 0 to 25% | 0 to 25% | 0 to 25% | 0 to 25% | 0 to 25% | 0 to 25% |
| CO Air Free | Y | Y | Y | Y | Y | Y |
| NO | | | | | 0 to 5K PPM | |
| NOX | | | | | 0 to 5,250 PPM | |
| CO2 Ratio | 0 to 0.9999 | 0 to 0.9999 | 0 to 0.9999 | 0 to 0.9999 | 0 to 0.9999 | 0 to 0.9999 |
| Excess Air | Y | Y | Y | Y | Y | Y |
| Efficiency (Gross & Net) | Y | Y | Y | Y | Y | Y |
| Temperature F | -58 to 1832 F | -58 to 1832 F | -58 to 1832 F | -58 to 2372 F | -58 to 2372 F | -58 to 2372 F |
| Temperature C | -50 to 1,000 C | -50 to 1,000 C | -50 to 1,000 C | -50 to 1,300 C | -50 to 1,300 C | -50 to 1,300 C |
| Temperature Differential | Y | Y | Y | Y | Y | Y |
| Pressure Measurement | | Y | | Y | Y | Y |
| Integral NOX Filter | Y | Y | Y | Y | Y | Y |
| Printer (Optional) | IR | IR | Bluetooth | IR | IR | IR |
| External Oil Filter | Optional | Optional | Optional | Optional | | Optional |
| 1 PPM CO Resolution for BPI | Y | Y | Y | Y | Y | Y |
| Residential, Commercial, Industrial | Y | Y | Y | Y | Y | Y |
| Compatible with PC | | | | Y | Y | |
| LCD Display | Y | Y | | Y | Y | Y |
| Smart Sensors (Field Replaceable) | | | Y | | | Y |
| Onboard Memory | 50 Tests | 50 Tests | Fee App | 50 Tests | 50 Tests | 100 Tests |
| Backlight | Y | Y | | Y | Y | Y |
| Rechargeable or Alkaline Battery | A | A: 709/R: 709R | R | R | R | A: 717/R: 717R |
| Data Logging | | | | Y | Y | |
| USB Output to PC (Software Optional) | | | | Y | Y | |
| Optional Bluetooth | | | Included | Y | Y | |
| Combustible Gas Leak Detection | | | | Y | Y | |
| Kit Available (*A740 printer included) (**SP620 manometer included) (**A740BT Printer included) | 708A740* | 709A740* | DC710C2** DC710C3*** | 716A740* | 716NA740* | 717A740* |

Note: All TPI Combustion Gas Analyzers are capable of measuring ambient CO.

| | A124 | A740 | A740BT | A746 | A760 | A760S | A761 | A761S | A763 | A763S | A765 | A769 | A770 | A770-20 |
|---------------|------------------------|------------|-------------------|--|---|-----------------|---|-----------------|-----------------------------|--------------------------------------|-----------------|--------------------------|-----------------------|---------------------------|
| Illustrations | | | | | | | | | | | | | | |
| Descriptions | Magnetic hanging strap | IR Printer | Bluetooth Printer | (2) Rolls of replacement paper for A740 and A740BT | CO Sensor (Requires calibration after installation) | Smart CO Sensor | O2 Sensor (Requires calibration after installation) | Smart O2 Sensor | Mini-pump protection filter | Screw-in mini-pump protection filter | Protective boot | Flue probe without temp. | Flue probe with temp. | 20' Flue probe with temp. |
| 708 | O | O | | | S | | S | | S | | S | | S | O |
| 708A740 | O | S | | S | S | | S | | S | | S | | S | O |
| 709 | O | O | | | S | | S | | S | | S | | S | O |
| 709A740 | O | S | | S | S | | S | | S | | S | | S | O |
| 709A740OIL | O | S | | S | S | | S | | S | | S | | S | O |
| 709A740C1 | O | S | | S | S | | S | | S | | S | | S | O |
| 709R | O | O | | | S | | S | | S | | S | | S | O |
| DC710 | | | O | | | S | | S | S | | | | S | O |
| DC710C1 | | | O | | | S | | S | S | | | | S | O |
| DC710C2 | | | O | | | S | | S | S | | | | S | O |
| DC710C3 | | | S | S | | S | | S | S | | | | S | O |
| DC710C4 | | | S | S | | S | | S | S | | | | S | O |
| 716 | O | O | | | S | | S | | | S | S | | S | O |
| 716A740 | O | S | | S | S | | S | | | S | S | | S | O |
| 716NHC | O | O | | | | | S | | | S | S | | S | O |
| 716N | O | O | | | S | | S | | | S | S | | S | O |
| 717 | | O | | | | S | | S | S | | S | | S | O |
| 717A740 | | S | | S | | S | | S | S | | S | | S | O |
| 717R | | O | | | | S | | S | S | | S | | S | O |

O = Optional; S = Standard

















All TPI Analyzers Feature:

- Pump driven for fast response time
- Will not shut off if 15 ppm CO is present for increased safety
- Store up to 50 readings (716 stores 100 readings)
- 1 ppm sensitivity (CO)
- Push on fittings for fast and easy use
- Large easy to read back-lit display
- Selectable fuels
- Protective rubber boot, flue probe, and soft padded carrying case with shoulder strap



Accessories for Combustion Analyzers & Kit Options

| | A773 | A774 | A776 | A785 | A787 | A792 | A793 | A820 | A794 | A796 | A797 | A807 | A917 | TP1 | GK11M |
|---------------|---|---|---|---|-----------------|---|---|---|--|---|---|---|---|---|---|
| Illustrations |  |  |  |  | See photo below |  |  |  |  |  |  |  |  |  |  |
| Descriptions | Sulfur Filter for Oil | 6' Silicone tubing | Static tip (2pcs.) | Exhaust probe | Soft case | High CO Sensor (Requires calibration after installation) | NO Sensor (Requires calibration after installation) | Adapter tube | Water filter trap | Water trap | Natural draft flue probe | Software & cable | Waterproof Pelican case | Threaded hole plug (10pcs) | Temp. Probe |
| 708 | O | | | | S | | | | | S | O | | O | O | S |
| 708A740 | O | | | | S | | | | | S | O | | O | O | S |
| 709 | O | S | O | | S | | | O | | S | O | | O | O | S |
| 709A740 | O | S | O | | S | | | O | | S | O | | O | O | S |
| 709A740OIL | S | S | O | | S | | | O | | S | O | | O | O | S |
| 709A740C1 | S | S | O | | S | | | O | | S | O | | O | O | S |
| 709R | O | S | O | | S | | | O | | S | O | | O | O | S |
| DC710 | O | | | | | | | | | S | O | | O | O | S |
| DC710C1 | O | | | | S | | | | | S | O | | O | O | S |
| DC710C2 | O | S | O | | S | | | O | | S | O | | O | O | S |
| DC710C3 | O | | | | S | | | | | S | O | | O | O | S |
| DC710C4 | S | | | | S | | | | | S | O | | O | O | S |
| 716 | O | S | S | | S | | | O | | S | O | O | O | O | S |
| 716A740 | O | S | S | | S | | | O | | S | O | O | O | O | S |
| 716NHC | | S | S | | S | S | S | O | | S | O | O | O | O | S |
| 716N | | S | O | | S | | S | O | | S | O | O | O | O | S |
| 717 | O | S | O | | S | | | O | | S | O | | O | O | S |
| 717A740 | O | S | O | | S | | | O | | S | O | | O | O | S |
| 717R | O | S | O | | S | | | O | | S | O | | O | O | S |

O = Optional; S = Standard

Popular Combustion Analyzer Kit Options

Get everything you need in a kit suited to your application.

DC710C1 WHY: combustion, WIRELESS use with smartphone, easy job management

Includes: DC710, USB Charger (A817), Soft Carrying Case (A787), Flue Probe (A770), In-Line Filter assembly installed on Flue probe (A796), Temperature Probe (GK11M), Mini Pump Protection Filter Assembly (A763)

DC710C2 WHY: combustion and pressure, WIRELESS use with smartphone, easy job management

Includes: DC710C1 plus SP620 differential manometer, Tubing (A774), Adapter tube (A820)

709A740 WHY: combustion and pressure, hard copy documentation with A740 IR printer

Includes: 709, Soft Carrying Case (A787), Flue Probe (A770), In-Line Filter assembly installed on Flue probe (A796), Temperature Probe (GK11M), Mini Pump Protection Filter (A763), Tubing (A774), Infrared Printer (A740), Printer Paper (A746)

DC710C3 WHY: combustion, WIRELESS use with smartphone, easy job management and hard copy documentation with A740BT printer

Includes: DC710C1 plus A740BT Bluetooth Printer

DC710C4 WHY: combustion, WIRELESS use with smartphone, easy job management, hard copy documentation with A740BT printer, and sulfur filter for Oil work

Includes: DC710C1, A740BT Bluetooth Printer and A773 sulfur filter



A787

**Carbon Monoxide
"The Silent
Killer"**

A carbon monoxide detector is a critical and necessary device for the HVAC tool kit. From advanced meters to personal/wearable monitors, TPI offers many reliable and accurate options.



| | 706 | 707 | 770 | 775 | SP700 |
|-----------------------------------|--|---|---|---|--|
| Description | Advanced High CO Meter | Advanced CO Meter | Carbon Monoxide Monitor | Ambient CO & Combustible Gas Leak Detector | Carbon Monoxide Smart Probe to use with App |
| Measurement & Ranges | CO: 0 to 9,999 PPM, over 9,999 PPM readout in % 1.0 to 9.9 (9.9%=99,999 PPM) | CO: 0 to 9,999 PPM | CO: 0 to 9,999 PPM | CO: 0 to 2,000 PPM; also detects greater than 50 PPM Methane | CO: 2,000 PPM |
| Quick & Easy Operation | Y | Y | Y | Y | Y |
| Display | Easy-to-read, 3-line LCD | Easy-to-read, 3-line LCD | Easy-to-read LCD | Easy-to-read LCD | Smart device App |
| Printing Capability | Use Optional A740 IR Printer for real-time, date stamp | Use Optional A740 IR Printer for real-time, date stamp | | | Data can be emailed and printed from a PC |
| Alarm | Audible | Audible | Visual & Audible | Visual & Audible | Visual & Audible |
| Other | Pump-driven for fast response. Fast, easy push-on fittings. | Pump-driven for fast response. Fast, easy push-on fittings. | Tilt-stand on back. | Visual & audible tic rate to pinpoint leak. 16" gooseneck. | Data can be saved to job in the TPI View app |
| Applications | Test forklift exhaust gases for the presence and location of CO leaks. | Measure CO levels in the flue, and test ambient CO levels in homes, offices, and other confined spaces. | Measure CO levels in the flue, and test ambient CO levels in homes, offices, and other confined spaces. | Measure ambient CO levels. Check for CO in and around combustion sources; locate combustible gas leaks. | Measure ambient CO levels in residential and commercial areas. |



777K1 Confirmation Test Kit

A dash of certified CO test gas through the tube of the locked in-bump cup quickly verifies that your home alarm visually and audibly responds to low levels of carbon monoxide. (Works only with TPI 777.)



777 Personal Carbon Monoxide Monitor

Durable, Always-On, CO Monitor

Easy operation with audible, visual and vibrating alarm for STEL and TWA. Two-year battery life. Designed for personal safety, and useful in these areas and more:

Fire Departments; Industrial Workers; Home Inspectors; HVACR; Residential Appliance Repair, Property Management and Housekeeping



PGM100 Carbon Monoxide Monitor

Intrinsically Safe CO Monitor

This rugged, single gas CO Monitor is intrinsically safe, durable, wearable tech designed to detect and warn the user of hazardous levels of carbon monoxide in a risk inherent environment.

Use wherever combustible material may be present, for example: Fuel Distribution Centers; and/or Agriculture Warehousing/ Distribution/Processing



Combustible Gas Leak Detector Leader!

Testing for combustible gas leaks should be a part of any routine maintenance schedule. TPI analyzers have the ability to nullify background gas concentrations to more easily pinpoint gas leaks.



| | 719 | 720B | 721 | 725A | 725L |
|---|---|---|---|---|---|
| Description | Combustible Gas Leak Detector | Combustible Gas Leak Detector | Combustible Gas Leak Detector with LCD Display | Pocket-Size Combustible Gas Leak Detector | Combustible Gas Leak Detector |
| Measurement & Ranges (Natural Gas, Methane, Propane (LPG), Gasoline, Diesel, Kerosene, etc.) | > 30 PPM Methane | > 10 PPM Methane | > 10 PPM Methane | >40 PPM Methane | > 40 PPM Methane |
| Quick & Easy Operation | Y | Y | Y | Y | Y |
| Leak Confirmation | Visual & Audible, with adjustable tic rate | Visual & Audible, with adjustable tic rate | Visual & Audible, with adjustable tic rate | Visual & Audible | Visual & Audible |
| Alarm | Visual & Audible | | Visual & Audible, user adjustable settings. | | |
| Other | 16" Gooseneck Probe. Optional earphone attachment. | 16" Gooseneck Probe. Optional earphone attachment. | 16" Gooseneck Probe. Optional earphone attachment. | Pocket Size | 7.5" Sensor Probe. |
| Applications | Trace gas lines and fittings for leaks. Check gas operated equipment for leaks. | Trace gas lines and fittings for leaks. Check gas operated equipment for leaks. | Test areas for lower explosive limit (%LEL) concentration of combustible gases. Trace gas lines, fittings and gas operated equipment for leaks. | Trace gas lines and fittings for leaks. Check gas operated equipment for leaks. | Trace gas lines and fittings for leaks. Check gas operated equipment for leaks. |

Frequently Asked Questions

Can I use any of the combustible gas detectors to test for carbon monoxide as well?

The 775 is capable of testing for combustible gas leaks and measuring carbon monoxide in ambient air.

I only need a basic low cost combustible gas leak detector. Which one should I choose?

The 725L is simple to use and low cost but still offers the ability to detect leaks as small as 40 PPM methane.

What gases can be detected?

Gases that can be detected include but are not limited to Acetone, Alcohol, Butane, Gasoline, Kerosene, Methane, Natural Gas, and Propane.

Finding Gas Leaks is Critical Work

Gas leaks can have disastrous consequences. Instruments to detect leaks should be in every HVACR technicians tool bag. No combustible gas equipment installation or service work should be performed without testing for leaks. Check all pipes, fittings, and valves for gas leaks, if any leaks are found repair or replacement should be performed.

Accessories:

All TPI Pressure Meters come with batteries, and pouch.

See available kits listed on right side of page 11.



| | 605 | 608/608BT | SP620 | 620 | 621 | 623 |
|----------------------------|--|--|---|---|--|---|
| Range Selection | Auto | Auto | Auto | Auto | Auto | Auto |
| Input Type | Single with 7/16-20 flared connector | Single with barb fitting | Dual/Differential with barb fittings | Dual/Differential with barb fittings | Dual/Differential with barb fittings | Dual/Differential with barb fittings |
| Pressure Range | | +/-60 in H2O | +/-80 in H2O | +/-80 in H2O | -120.4 in H2O to 120.4 H2O | +/-40 in H2O |
| Vacuum Range | 12,000 to 15 microns | | | | | |
| Over Pressure Limit | 300 PSI | 120 inH2O | 200.7 inH2O | 200.7 inH2O | 421.5 inH2O | 50 inH2O |
| Resolution | <200 = 1 micron <400 = 5 microns <500 = 10 microns <1000 = 20 microns <2000 = 50 microns <12000 = 500 microns | 0.01 inH2O (+/-29.99 inH2O) 0.1 inH2O (Above / below 29.99 inH2O) | 0.01 inH2O (+/- 49.99 inH2O) 0.1 inH2O (Above / below 49.99 inH2O) | 0.01 inH2O (+/- 49.99 inH2O) 0.1 inH2O (Above / below 49.99 inH2O) | 0.001 inH2O (-9.999 inH2O to 9.999 inH2O) 0.01 inH2O (+/-10.00 inH2O to 99.99 inH2O) 0.1 (+/-100 inH2O to 120.0 inH2O) | 0.001 inH2O (-9.999 inH2O to 9.999 inH2O) 0.01 inH2O (+/-10.00 inH2O to 40.00 inH2O) |
| Unit Selection | 7 selectable units Microns, PSI, inHg, mbar, Pascals, Torr, mTorr | inH2O, mbar, KPa, PSI | 7 selectable units mmH2O, inH2O, mmHg, inHg, PSI, mbar, kPa | 7 selectable units mmH2O, inH2O, mmHg, inHg, PSI, mbar, kPa | 7 selectable units mmH2O, inH2O, mmHg, inHg, PSI, mbar, kPa | 7 selectable units mmH2O, inH2O, mmHg, inHg, PSI, mbar, kPa |
| One Touch Zero | | Y | Y | Y | Y | Y |
| Trim Mode | | | Y | Y | Y | Y |
| Min/Mx Record | | | Y | | | |
| Data Hold | | | | | | |
| Backlit Display | | Y | NA (Smart Device) | Y | Y | Y |
| Auto Power Off | Y | Y | Y | Y | Y | Y |
| Data Logging | | | Yes (App Function) | | | |
| PC Communication | | No; 608BT Yes | Y | | | |
| Memory | | No; 608BT (App Function) | Yes (App Function) | | | |
| Bluetooth | | No; 608BT Yes | Y | | | |

Frequently Asked Questions Can TPI manometers display in multiple units of measure?

Yes, TPI manometers, with the exception of the TPI 620, have the ability to display readings in different units of measure. Models are available that display in up to seven units: mmHg, inHg, kPa, mBar, PSI, inH2O, and mmH2O.





621C3 Dual Input Differential Manometer Kit

Measure pressure on appliances, mid & high-efficiency furnaces, boilers of all sizes, hot water tanks, tankless hot water heaters, fireplaces and more.

Use the 621C3 to adjust manifold pressures, pressure switches, draft supply pressure, HRV, and air handling unit balancing.



| | 635 | 645 | 645NPT | 665/665L |
|----------------------------|--|--|--|--|
| Range Selection | Auto | Auto | Auto | Auto/Manual |
| Input Type | Dual/Differential with screw compression fittings | Dual/Differential with screw compression fittings | Dual/Differential with 1/4" NPT fittings | Dual/Differential with 1/4" NPT fittings |
| Pressure Range | +/-5 PSI (138 inH2o) | +/-30 PSI (830 inH2o) | +/-30 PSI (830 inH2o) | +/-100 PSI (+/-2810 inH2o) |
| Vacuum Range | | | | |
| Over Pressure Limit | 14.5 PSI | 58 PSI | 58 PSI | 145 PSI |
| Resolution | 0.0001 PSI (+/- 0.1999 PSI) 0.001 PSI (Above / below 0.1999) 0.01 inH2O (+/- 19.99inH2O) 0.1 inH2O (Above / below 19.99inH2O) | 0.001 PSI (+/- 1.999 PSI) 0.01 PSI (Above / below 1.999) 0.1 inH2O (+/-199.9inH2O) 1 inH2O (Above / below 199.9inH2O) | 0.001 PSI (+/- 1.999 PSI) 0.01 PSI (Above / below 1.999) 0.1 inH2O (+/-199.9inH2O) 1 inH2O (Above / below 199.9inH2O) | 0.001 PSI (+/- 99.999 PSI) 0.01 PSI (Above / below 99.999) 0.1 inH2O (+/- 2810.0inH2O) |
| Unit Selection | 7 selectable units mmH2O, inH2O, mmHg, inHg, PSI, mbar, kPa | 7 selectable units mmH2O, inH2O, mmHg, inHg, PSI, mbar, kPa | 7 selectable units mmH2O, inH2O, mmHg, inHg, PSI, mbar, kPa | 7 selectable units mmH2O, inH2O, mmHg, inHg, PSI, mbar, kPa |
| One Touch Zero | Y | Y | Y | Y |
| Trim Mode | Y | Y | Y | Y |
| Min/Mx Record | Y | Y | Y | Y |
| Data Hold | Y | Y | Y | Y |
| Backlit Display | Y | Y | Y | Y |
| Auto Power Off | Y | Y | Y | Y |
| Data Logging | | | | Yes, with time stamp |
| PC Communication | | | | Yes, with optional adapter |
| Memory | | | | Yes, 16 storage locations |
| Bluetooth | | | | |

621C3 Kit Includes:

- 621 manometer
- A774 6' tubing
- A776 (2) static tips
- A603 barbed fitting
- A605 T fitting (2)
- A612 protective rubber boot
- A908 carrying case

621C7 Kit Includes:

- 621 manometer
- 100 DMM
- A040 test lead set
- A052 screw on banana plug adapters
- A057 back probes
- A603 barbed fitting
- A605 T fitting (2)
- A613 boot with magnets for 621
- A820 tube adapter
- A901CP carrying case

623C3 Kit Includes:

- 623 manometer
- A603 barbed fitting
- A605 T fitting (2)
- A774 tubing
- A776 static tip (2)
- A820 tube adapter
- A901CP carrying case

Frequently Asked Questions

When performing measurements on systems that have slight pulses in pressure how do I stabilize a reading?

Selecting a TPI manometer with the Trim feature provides the ability to “smooth” the reading by taking a running average of several readings before updating the display.



| | 556C1 | 565C1 | 575C1 | 597C1 | 1010A |
|---------------------------------|---|---|--|---|--|
| Measurement | Anemometer: Air Velocity (m/s, km/h, ft/min, knots, mile/h), CFM, and Temperature (F/C) | Anemometer: Air Velocity (m/s, km/h, ft/min, knots, mile/h) and Temperature (F/C) | Anemometer: Air Velocity (m/s, km/h, ft/min, knots, mile/h) and Temperature (F/C) | Hygrometer & Psychrometer: Humidity and Temperature (°F/°C) | Hygrometer, Psychrometer & Gas Meter: Humidity, Temperature (°F/°C), CO and CO2 |
| Air Velocity | 80 to 5916 ft/min; 0.4 to 30 m/s | 39 to 3900 fps; 0.2 to 20 m/s | 39 to 3900 fps, 0.2 to 20 m/s Hot wire; 197 to 4900 ft/min, 1.0 to 25 m/s Vane | | |
| Temperature | -5 to 175 F (-20 to 80 C) | -5 to 175 F (-20 to 80 C) | -5 to 175 F (-20 to 80 C) | -40 to 122 F (-40 to 50 C) | -5 to 140 F (-20 to 60 C) |
| CFM Calculation | Automatically calculates and displays CFM based on user entered duct size | Manually calculate CFM using a formula | Manually calculate CFM using a formula | | |
| Humidity | | | | 0 to 100% | 5 to 95% |
| Dew Point | | | | | -47 to 135 F (-44 to 57 C) |
| Wet Bulb | | | | 3 to 122 F (-16 to 50 C) | 3 to 135 F (-16 to 57 C) |
| Carbon Monoxide | | | | | 0 to 500 PPM |
| Carbon Dioxide | | | | | 0 to 5,000 PPM |
| % Outside Air | | | | | 0 to 100% (Calculated) |
| Sensor/ Probe | Integrated, vane probe with 39" cable | Integrated, telescoping hotwire probe with 39" cable | Easily attachable and interchangeable vane or telescoping hotwire probe with 39" cable | Integrated sensor wand/probe with 39" cable | Integrated |
| Record Min/Max | Y | Y | Y | Y | Y |
| Data Logging | | | | | Log up to 10,000 readings in 1 second to 1 hour intervals; download with included USB cable and software |
| Output | To PC in ASCII with optional A500 RS232 cable | To PC in ASCII with optional A500 RS232 cable | To PC in ASCII with optional A500 RS232 cable | To PC in ASCII with optional A500 RS232 cable | To PC with included USB cable and software |
| Printing Capability | | | | | With optional A740 |
| Included with Instrument | Case, rubber boot, vane probe & battery | Case, rubber boot, hot-wire probe & battery | Case, rubber boot, hot-wire probe, vane probe & battery | Case, rubber boot, integrated probe & battery | Case & battery |








Indoor Air Quality Instruments to Measure: Airflow, Humidity, Temperature, Carbon Monoxide, Carbon Dioxide








| | DC580C1 | DC580C2 | DC580C3 | SP555 | SP565 | SP700 | SP1000 |
|-------------------------------------|---|---|---|--|--|--|--|
| Measurement | Anemometer: Air Velocity (m/s, km/h, ft/min, knots, mile/h), CFM, and Temperature (F/C) | Anemometer: Air Velocity (m/s, km/h, ft/min, knots, mile/h), CFM, and Temperature (F/C) | DC580C3 combines the DC580C1 and DC580C2. Offering all capabilities of both kits. | Vane Air Velocity Smart Probe | Hotwire Velocity Smart Probe | Ambient Air CO Smart Probe | Ambient Air CO2 Smart Probe |
| Air Velocity | 39 to 3900 fps; 0.2 to 20 m/s (Hotwire) | 197 to 4900 ft/min; 1.0 to 25 m/s (Vane) | Same as DC580C1 and DC580C2. | 80 to 4900 ft/min; 0.4 to 25 m/s | 80 to 3900 ft/min; 0.2 to 20 m/s | | |
| Temperature | -4 to 140 F (-20 to 60 C) | -4 to 140 F (-20 to 60 C) | -4 to 140 F (-20 to 60 C) | -4 to 140 F (-20 to 60 C) | -4 to 140 F (-20 to 60 C) | | |
| CFM Calculation | Automatic based on user entered duct size | Automatic based on user entered duct size | Automatic based on user entered duct size | Automatic based on user entered duct size | | | |
| Duct Traverse | Yes, timed and spot test | Yes, timed and spot test | Yes, timed and spot test | Yes, timed and spot test | Yes, timed and spot test | | |
| Carbon Monoxide | | | | | | 0 to 999ppm | |
| Carbon Dioxide | | | | | | | 300ppm to 6,000ppm |
| Sensor/ Probe | Easily attachable hotwire probe with 39" cable | Easily attachable vane probe with 39" cable | Both hotwire probe and vane probe included. | Integrated | Integrated | Integrated | Integrated |
| Record Min/Max | Y | Y | Y | Y | Y | Y | Y |
| Data Logging | Up to 300 readings; transferable to DC580 App. | Up to 300 readings; transferable to DC580 App. | Up to 300 readings; transferable to DC580 App. | Readings with date/time stamp via TPI Smart Probe App. | Readings with date/time stamp via TPI Smart Probe App. | Readings with date/time stamp via TPI Smart Probe App. | Readings with date/time stamp via TPI Smart Probe App. |
| Output: Bluetooth to TPI App | Y | Y | Y | Y | Y | Y | Y |
| Email Reports & CVS Data | Y | Y | Y | Y | Y | Y | Y |
| Print from PC | Y | Y | Y | Y | Y | Y | Y |
| Included with Instrument | Case, rubber boot, hotwire probe & battery | Case, rubber boot, vane probe & battery | Case, rubber boot, hotwire probe, vane probe & battery | Pouch & battery | Pouch & battery | Pouch & battery | Pouch & battery |







Wireless Indoor Air Quality Instruments to use with your smartphone for easy data management.

| | CK13M | CK15M | CK20M | CK21M | CK21MC1 | CK22M | CK24M |
|--|---|---|---|---|---|---|---|
| TPI k-type temperature probes work with any k-type temperature tester with a sub-mini connector. |  |  |  |  |  |  |  |
| Probe Type | Surface | Surface | Pipe Clamp | Pipe Clamp | Pipe Clamp (2) | Surface | Pipe Clamp |
| Key Feature | Exposed junction for fast response | Heavy-duty to use with HK11M handle | Fast response accommodates pipes up to .75" in diameter | Fast response accommodates pipes up to 1" in diameter | Get 2 CK21M pipe clamp probes | 45 degree stem for hard to reach areas | Fast response accommodates pipes up to 1.5" diameter |
| Lowest Temperature | -58 F (-50 C) | -40 F (-40 C) | -58 F (-50 C) | -58 F (-50 C) | -58 F (-50 C) | -58 F (-50 C) | -58 F (-50 C) |
| Highest Temperature | 1202 F (650 C) | 950 F (510 C) | 212 F (100 C) | 212 F (100 C) | 212 F (100 C) | 500 F (260 C) | 500 F (250 C) |
| Probe Length | 4" | 8" | | | | 4.9" w/ 90 bend | 4.9" w/ 90 bend |
| Cable Length | 39" Coiled Cord | 39" Coiled Cord | 39" Coiled Cord | 39" Coiled Cord | 39" Coiled Cord | 39" Coiled Cord | 39" Coiled Cord |
| Connection | sub-mini | sub-mini | sub-mini | sub-mini | sub-mini | sub-mini | sub-mini |



See Kits Available on Page 15.

| | FK11M | FK13M | FK26M |
|--|--|---|---|
| TPI k-type temperature probes work with any k-type temperature tester with a sub-mini connector. |  |  |  |
| Probe Type | Penetration | Immersion | Penetration |
| Key Feature | Fast response chisel tip penetration probe | Heavy-duty to use with HK11M handle | Pete's Plug testing |
| Lowest Temperature | -58 F (-50 C) | -40 F (-40 C) | -40 F (-40 C) |
| Highest Temperature | 500 F (260 C) | 1202 F (650 C) | 400 F (204 C) |
| Probe Length | 4" | 8" | 3" |
| Cable Length | 39" Coiled Cord | | 39" Straight Cord |
| Connection | sub-mini | sub-mini | sub-mini |

| | GK11M | GK12M | GK13M | GK14M | GK16M | GK41M |
|--|---|---|---|--|---|---|
| TPI k-type temperature probes work with any k-type temperature tester with a sub-mini connector. |  |  |  |  |  |  |
| Probe Type | Air | Air | Air | Air | Air | Air |
| Key Feature | Exposed tip fast response | Exposed tip with Oven clip | FDA approved insulation | Exposed tip with shaft and handle | Heavy-duty to use with HK11M handle | FDA approved insulation |
| Lowest Temperature | -40 F (-40 C) | -40 F (-40 C) | -40 F (-40 C) | -58 F (-50 C) | -40 F (-40 C) | -40 F (-40 C) |
| Highest Temperature | 950 F (510 C) | 950 F (510 C) | 400 F (204 C) | 500 F (260 C) | 500 F (260 C) | 400 F (204 C) |
| Probe Length | | | | 3.74" | 8" | |
| Cable Length | 48" Straight | 48" Straight | 48" Straight | 39" Coiled Cord | | 8" |
| Connection | sub-mini | sub-mini | sub-mini | sub-mini | sub-mini | sub-mini |





Measure temperature differential, supply & return air.

- **Auto Field Calibrate** in less than 10 seconds in ice water to achieve +/- 1°F system (tester & probe) accuracy within 30°F to 120°F temperature range. Easy two-step process performed with keypad, no additional tools needed.
- Temp1, Temp2, Temp1-Temp2 display modes
- Min/Max Record, Hold, & Auto Off
- Easy-to-Read LCD Display, Auto Resolution (0.1° / 1°)
- C/°F Selectable
- Protective rubber boot

| | 343C1 | 343C2 | 343C3 | 343C4 | 343C5 |
|---|---------------|---------------|---------------|---------------|---------------|
| Temperature F | -58 to 2462 F | -58 to 2462 F | -58 to 2462 F | -58 to 2462 F | -58 to 2462 F |
| Temperature C | -50 to 1350 C | -50 to 1350 C | -50 to 1350 C | -50 to 1350 C | -50 to 1350 C |
| Auto Field Calibrate | Y | Y | Y | Y | Y |
| Temperature Differential | Y | Y | Y | Y | Y |
| Record/Min/Max, Data Hold | Y | Y | Y | Y | Y |
| Protective Rubber Boot | Y | Y | Y | Y | Y |
| CK21M Pipe Clamp Probe | | | 2 | | |
| CK24M Pipe Clamp Probe | | | | | 2 |
| GK13M Flexible PTFE Insulated Probe | | 2 | 2 | | 2 |
| GK11M Flexible Fiberglass Insulated Probe | 2 | | | 2 | |
| FK11M Penetration Probe | | | | 1 | |
| CK11M Surface Probe | | | | 1 | |
| Carrying Case | Y | Y | Y | Y | Y |

Note: Type of probe being used determines the temperature range of the instrument.

Non-Contact (IR) & Contact Temperature Testers

Non-contact (IR) temperature testers measure hard-to-reach, sensitive, or moving surface temperatures. Tubing, piping, and sheet metal temperatures are easy to obtain with an IR instrument.



| | 368 | 376 | 381A | 381B | 383A | 384A |
|---|--------------|------------------|------------------|-----------------------------|------------------|------------------|
| IR Surface Temp F | -4 to 248 F | -58 to 950 F | -4 to 572 F | -4 to 572 F | -31 to 999 F | -4 to 1832 F |
| IR Surface Temp C | -22 to 300 C | -50 to 510 C | -20 to 300 C | -20 to 300 C | -35 to 560 C | -20 to 1000 C |
| Distance to Spot Ratio | 1:1.17 | 11.5:1 | 9:1 | 9:1 | 9:1 | 9:1 |
| Contact Temperature F (with K-Type probe) | | -40 to 2,192 F | -148 to 2,192 F | -148 to 2,192 F | -148 to 2192 F | -148 to 2192 F |
| Contact Temperature C (with K-Type probe) | | -40 to 1,200 C | -100 to 1,200 C | -100 to 1,200 C | -100 to 1200 C | -100 to 1200 C |
| Laser Pointer | | Center Dot | Center Dot | Circle Target w/ Center Dot | Center Dot | Center Dot |
| Adjustable Emisivity | | Y | | | | |
| Record Function | | Y | | | | |
| Data Hold | Y | Y | Y | Y | Y | Y |
| Operation Lock Function | Y | Y | | | | |
| Display | LCD | LCD w/ Backlight | LCD w/ Backlight | LCD w/ Backlight | LCD w/ Backlight | LCD w/ Backlight |
| GK11M Probe Included | | | Y | Y | Y | Y |



SP341 Sub-Mini K-Type Thermometer

Use with TPI Smart Probe App to display temperature on a smart phone. Measure T1, T2 and calculate T1-T2 using a single SP341 or two SP341's at the same time. Industry standard sub-mini connector.





- **Auto Field Calibrate** in less than 10 seconds in ice water to achieve +/- 1°F system (tester & probe) accuracy within 30°F to 120°F range
- Measure temperature and calculate T1-T2
- Record minimum, maximum & average
- Display readings in °F or °C

Range:

- -58°F to 2462°F (-50°C to 1350°C)

Use any K-type thermocouple probe with a sub-mini connector.

Includes: SP341 Sub-Mini K-Type Thermometer, GK41M, and A341SP pouch.

| | | |
|--|---|--|
| CK15M Heavy-duty contact surface probe \$19.95 |  | |
| Range°F/C -40° to 950°F -40° to 510°C | Dimensions Stem Length: 8" IP Rating: N/A Diameter: 0.6"/0.15" | Application Contact temperatures on flat and uneven high temperature surfaces |
| FK13M Pointed tip penetration probe \$14.95 |  | |
| Range°F/C -40° to 1562°F -40° to 850°C | Dimensions Stem Length: 8" IP Rating: 67 Diameter: 0.15" | Application General purpose penetration into semi-solids and liquids |
| GK16M General purpose caged air probe \$14.95 |  | |
| Range°F/C -40° to 500°F -40° to 260°C | Dimensions Stem Length: 8" Diameter: 0.15" | Application Caged exposed junction for fast response in air |
| GK41M General purpose beaded tip probe \$6.95 |  | |
| Range°F/C -40° to 400°F -40° to 204°C | Dimensions Stem Length: 8" Diameter: 24 gauge | Application Exposed junction for fast response in food and non-food liquid, air and surface applications |

Find more K-type thermocouple probes with sub-mini connectors on page 14.



605 Digital Vacuum Gauge

Verify vacuum before charging refrigerant system. Find small leaks, and prevent moisture and air from remaining in system.

- 12,000 to 15 micron range, 1 micron resolution
- Wall hook and magnets for easy, hands-free use
- 300 PSI over-pressure for safety
- Cleanable sensor
- Microns, PSI, inHg, mBar, Pascals, mTorr and Torr
- Auto power off after 20 minutes



Detect R-507 (AZ50) quicker with pump-driven TPI 753A

750A & 753A Refrigerant Gas Leak Detectors

- Detect all existing refrigerants and blends, including: 404A, PURON, 410A and *F-507 (AZ50)
- 400 hours individual sensor life; spare sensor included for 800 total hours of continuous sensor life under normal operating conditions
- Refrigerant leak detectors include a silicon tip protection tube to protect the sensor. The tube slips over the sensor to prevent foreign material from entering the tip. The tube can be removed and cleaned.

750A: 0.2 oz/yr sensitivity, soft pouch included.

753A: 0.1 oz/yr sensitivity, pump driven, soft pouch included.

Frequently Asked Questions

How do I clean the 605's sensor?

Fill the 605 sensor housing approximately half full with alcohol and screw the cap on. Gently shake the 605 to allow the alcohol to rinse the inside of the sensor area. Remove the cap and pour the alcohol out. Leave the cap off and allow the 605 sensor to dry for at least 20 to 30 minutes before installing the cap or using the instrument.

Will TPI refrigerant leak detectors pick up the new 410A PURON refrigerants?

Yes, the 750A and 753A refrigerant leak detectors pick up all current refrigerants and blends, including 404A and 410A (PURON).

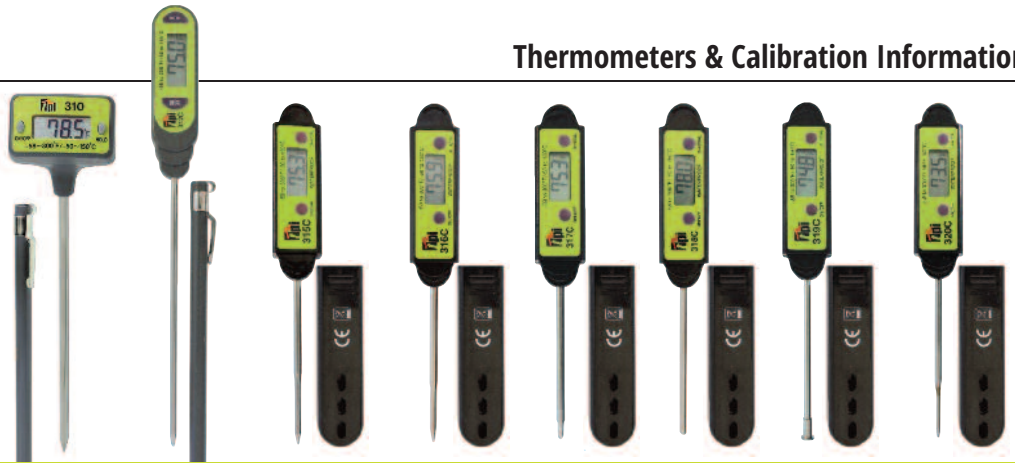
Why would I want a pump on my refrigeration leak detector?

Generally, refrigerant leak detectors with pumps respond and clear faster as you enter or leave the leak area. This is most important when locating small leaks. The 753A has a pump and the 750A does not.



Field Calibrate

All TPI Pocket Digital Thermometers can be calibrated using ice water. See instructions below.



| | 306C | 306CX | 310C | 312C | 315C | 316C | 317C | 318C | 319C | 320C |
|-------------------------------------|----------------------|----------------------|--------------|-----------------------|--------------|--------------|--------------|--------------|--------------|------------------------|
| Tip | Penetration | Penetration | Penetration | Long Stem Penetration | Penetration | Penetration | Air | Chisel Tip | Contact | Extra Thin Penetration |
| Range | -40 to 300 F | -40 to 150 C | -58 to 300 F | -58 to 300 F | -58 to 300 F | -58 to 300 F | -58 to 300 F | -58 to 300 F | -58 to 300 F | -58 to 300 F |
| C/F Switchable | | | Y | Y | Y | Y | Y | Y | Y | Y |
| Auto Field Calibration | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y |
| Data Hold | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y |
| Water Resistant | Y (with rubber boot) | Y (with rubber boot) | | Y | Y | Y | Y | Y | Y | Y |
| Water Proof | | | | Y | Y | Y | | Y | Y | Y |
| Magnets on back | | | | | Y | Y | | Y | Y | Y |
| Tapered Stem for Pete's Plug | | | | | Y | Y | | Y | | |
| Reversible LCD | | | Y | | | | | | | |
| Rubber Boot | Y | Y | | | | | | | | |
| Auto Off | Y | Y | Y | Y | Y | Y | Y | Y | Y | Y |

| Probe Tips | | | |
|--|---|--|--|
| Penetration | Air | Contact | Chisel |
| | | | |
| Use for immersion and air; air response time will be slower than if using an actual air probe. | Samples air temperatures three times faster than penetration or contact tips. | Can't measure surface temperature fast or repeatably with penetration probe. | Need chisel tip for surface temperatures. Penetration and/or air tips will not give an accurate surface reading. |



Auto field calibrate in ice water to achieve +/- 2°F accuracy.

Easy to follow procedure for 306C, 310C, 312C, 315C, 316C, 317C, 318C, 319C & 320C:

1. Fill plastic or metal container with crushed ice and clean water to a depth of at least 4 inches. Stir ice and water for 2 to 3 minutes before calibration to completely chill water. Have plenty of ice in the mixture and always use clean water. Ice bath temperature is approximately 32°F (0°C).
2. Insert the stainless steel shaft of the C series thermometer into the ice bath with at least one inch of the tip immersed. Allow reading to stabilize.
3. Press and hold the D-H/CAL button for approximately 8 seconds until "CAL" is displayed. "CAL" will display for approximately 2 seconds. The thermometer will return to normal operation. Calibration is complete.

Rugged & Tough!

TPI offers a DMM for many applications - whether you need to view industrial signals with waveforms or perform the most basic and simple tasks.

For more information on each of these DMMs visit testproductsintl.com.



| | 100 | 133 | 183A | 194 | 196 | 440 |
|-------------------------------|-------------|---------|--------------------|---|---------|----------|
| Basic DC Accuracy | 0.50% | 0.50% | 0.50% | 0.05% | 0.05% | 0.30% |
| AC Voltage | 1.7 to 600V | 750 V | 1000 V | 1000 V | 1000 V | 750 V |
| DC Voltage | 1.5 to 600V | 1000 V | 750 V | 1,000 V | 1,000 V | 1000 V |
| AC/DC Current | | 10A | 10 A | 10 A | 1 A | 10A |
| Resistance | 40M | 20 M | 40 M | 50 M | 50 M | 30M |
| Frequency | | | 10 MHz | 5 MHz | 500 KHz | 2 MHz |
| Capacitance | | | 4,000 uF | 20,000 uF | | 400 uF |
| Temperature | | | -40 to 2,372 F | -54 to 2462 F | | |
| Conductance | | | | 50 mS | | |
| Duty Cycle/Pulse Width | | | Duty: 0.1 to 99.9% | Duty: 0.1 to 99.9%; P/W: 500 ms, 1 S | | |
| Continuity/Diode Test | | Y | Y | Y | Y | Y |
| Counts | 2000 | 2,000 | 4,000 | 50,000 | 50,000 | 4,000 |
| True RMS | | | Y | Y | | Y |
| Bandwidth | | | | | | 1 MHz |
| Auto Ranging | Y | | Y | Y | Y | Y |
| Manual Ranging | | Y | Y | Y | Y | Y |
| Backlight | | | Y | Y | Y | Y |
| Min/Max/Record | | | Y | Y | Y | Y |
| Data Hold | | Y | y | Y | Y | Y |
| Trend Mode | | | | | | Y |
| Glitch Capture | | | | | | Y |
| PC Communication | | | Y | Y | Y | Y |
| Auto Power Off | | | Y | Y | Y | Y |
| Protective Rubber Boot | Y | Y | Y | Y | Y | Optional |
| cULus | | 61010-1 | 61010-1 | 61010-1 | 61010-1 | 61010-1 |
| CAT II | 1000V | 1,000 V | 1,000 V | | 1,000 V | 1,000 V |
| CAT III | 600V | 600 V | 600 V | 1000V | 600 V | 600 V |
| CAT IV | | | | 600V | | |

4-20mA output for testing process controls 1 MHz Oscilloscope

Other

Find Test Leads and Accessories on Page 20.



A127 Magnetic Strap with Boot Hook and Boot Adapters

For use with TPI instruments equipped with a rubber protective boot. Enables instruments to be attached to a metal surface via the magnetic strap or hung using the included A103 hook for hands free use. Includes two boot adapters A132 and A133.



Slim Jaws or Wide Jaws?

Choose the 265, 270 or 275 for working in tight areas where a narrow jaw will fit.

The 293 and 296 offer a wider jaw for electrical and industrial applications.



| | 265 | 270 | 275 | 293 | 296 |
|-------------------------------|-------------|-------------|---------------|--------------|--------------|
| Basic DC Accuracy | 0.50% | 0.50% | 0.50% | 0.75% | 0.50% |
| DC Voltage | 600 V | 600 V | 600 V | 600 V | 600V |
| AC Voltage | 600 V | 600 V | 600 V | 600 V | 600V |
| AC/DC Current (Jaw) | 400 AC Only | 400 AC Only | 400 A AC & DC | 700A AC Only | 700A AC & DC |
| DC Microamps (Test Leads) | | 400uA | 1100uA | | |
| Resistance | 40 M | 40 M | 110 M | 40 K | 40K |
| Frequency | 400 MHz | 400 MHz | 110 MHz | 10 KHz | 10 KHz |
| Capacitance | 4,000 uF | 4,000 uF | 4,000 uF | | |
| Temperature | | 1,000 F | 1,000 F | | |
| Continuity | Y | Y | Y | Y | Y |
| True RMS | | | Y | Y | Y |
| Counts | 4,000 | 4,000 | 11,000 | 4,000 | 4,000 |
| Auto Ranging | Y | Y | Y | Y | Y |
| Manual Ranging | Y | Y | Y | Y | Y |
| In-Rush Current Capture | | Y | Y | | |
| Peak Hold | | Y | Y | Y | Y |
| Min/Max/Record | | Y | Y | Y | Y |
| Data Hold | Y | Y | y | Y | Y |
| Non-Contact Voltage Detection | | Y | Y | | |
| Auto Power Off | Y | Y | Y | Y | Y |
| cULus | 61010-1 | 61010-1 | 61010-1 | 3111-1 | 3111-1 |
| CAT II | 1,000V | 1,000 V | 1,000 V | 1,000V | 1,000V |
| CAT III | 600V | 600 V | 600 V | 600V | 600V |



Pocket-Size, Safety Volt Testers

Determine the presence or absence of AC voltage without disconnecting the system in question.

- No switch required, always 'on' ready for use
- Uses 2 AAA batteries (included)
- UL listed, lifetime warranty

Model 40 (low voltage):

Red glow indicates presence of 24-90 V.

Model 50:

Audible buzzer and visual alarm, red glow indicates presence of 50-1,000 V.

183aC3 HVAC DMM and Clamp Meter Kit

Troubleshoot ECMs & VFDs. Test flame sensors, check capacitors, measure temperature rise.

Kit includes: 183a DMM, 265 Clamp-On, A106 adapter, GK13M general purpose probe, A085 test lead alligator clips, A040 test lead, A901CP case.

Optional A108 Data Logging Software & Interface Cable allow you to view what you see on your multimeter display on your computer screen.



| A020 | A052 | A054 | A057 | A066 | A067 | A080 | A081 | A082 | A083 | A084 | A085 | A088 | A150 |
|-------------------------|------------------------------------|---------------|-------------------------|---|------------------|---|--|--|-------------------------------------|---|--|---|---|
| | | | | | | | | | | | | | |
| Flame current test lead | Screw-on male banana plug adapters | Modular prods | Black probe adapter set | 1,000 V Fully insulated crocodile clips | Grabber clip set | UL listed silicone insulation test lead set without alligator clips | Right angle to shuttered plug silicone insulated multipurpose lead set | Right angle to fixed shroud multipurpose test lead set | Screw in fused test probes for A088 | Screw in fused crocodile clips for A088 | UL Listed silicone test lead set with screw on alligator clips | Probe handles with leads for use with A083 & A084 | UL Listed screw on alligator clips for use with A080 and included in A085 |

| | A020 | A038 | A052 | A054 | A057 | A066 | A067 | A080 | A081 | A082 | A083 | A084 | A085 | A088 | A150 | TLSCASE1 |
|----------------------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|------|----------|
| Test Lead Kit | | | | | | | | | | | | | | | | |
| A085BP | | X | X | | X | | | X | | | | | | | X | |
| A089 | | | | | | | | | | | X | X | | X | | |
| TLK3 | | | X | | X | | | | | | | | X | | | |
| TLK4 | | X | X | | X | | | | | | | | X | | | |
| TLK10 | | X | X | X | X | X | X | | | X | | | | | | X |
| TLSHVACR1 | | | X | X | X | X | X | | X | | | | | | | |

About TPI Test Leads

Silicone insulated test leads (A080, A081, A082, A083, A085 and A089):

- Double insulated for safety
- Flame retardant
- More flexible because of higher strand count and silicone insulation

In-Line fuse: Each fused test lead has a user-replaceable, in-line fuse designed to protect the user.

Agency Listed: cULus 61010-1 and IEC 61010: CAT IV 600V 10A, CAT III 1,000V 10A



One TPI's most popular kits, the TLK10 includes a pouch with velcro belt loop and nine inside pockets. Plenty of room for test leads, accessories, and a full size DMM. The inside pockets will not crack in cold weather. Includes all items shown above, and listed in above chart.

A320 Low Pass Filter

Filters out higher frequency noise, and stabilizes readings for more accurate measurements in noisy environments. Use with instruments which don't have low pass filters.



A115 Thermocouple Adapter

Use the A115 to check thermocouples in series with the furnace running.



A127 Magnetic Strap with Boot Hook & Boot Adapters

Use with TPI test instruments equipped with a protective rubber boot. Enables instruments to be attached to a metal surface via the magnetic strap or hung using the included A103 hoot for hands free use. Includes two boot adapters A132 and A133.



Flexflair Fittings

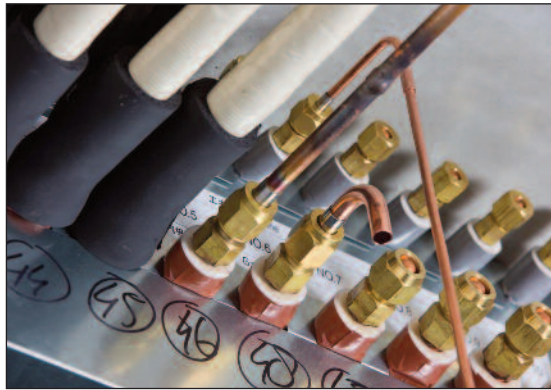
Ensure leak free connections with Flexflair series patented flare connectors (standard flare connections often leak over time, especially with high pressure refrigerants).

Reliable don't have call backs for leaks, especially 410A and high pressure refrigerants.

Easy to use don't have to make a double flare.

Save time & money eliminates the time and trouble of the double flare.

Re-usable connection easy component change out with replaceable trumpet ring.



- Renewable copper trumpet ring
- Stainless steel reinforced SAE core
- Heavy duty oversized nut
- Frost grooves, tight tolerances
- Swaged copper



| Flexflair Series | | | | | | | | | | | | |
|------------------|------------|------|-----|----|----|----------------|------------|------|----|----|-----|--|
| Standard Model | Connection | | L/I | | | Reducing Model | Connection | | | | L/I | |
| | SAE | ODF | | | | | SAE | ODF | | | | |
| Type | Flare | inch | mm | mm | mm | Type | Flare | inch | mm | mm | mm | |
| FA-2 | 1/4 | 1/4 | 6 | 45 | 6 | | | | | | | |
| FA-3 | 3/8 | 3/8 | 10 | 45 | 9 | FA-3x2 | 3/8 | 1/4 | 6 | 45 | 6 | |
| FA-4 | 1/2 | 1/2 | 12 | 54 | 10 | FA-4x3 | 1/2 | 3/8 | 10 | 45 | 9 | |
| FA-5 | 5/8 | 5/8 | 16 | 68 | 13 | FA-5x4 | 5/8 | 1/2 | 12 | 54 | 10 | |
| FA-6 | 3/4 | 3/4 | 18 | 68 | 15 | FA-6x5 | 3/4 | 5/8 | 16 | 68 | 13 | |
| FA-7 | 7/8 | 7/8 | 22 | 87 | 17 | FA-7x6 | 7/8 | 3/4 | 18 | 68 | 15 | |

| Trumpet Rings | | | | | |
|------------------------|------------------------|------------------------|------------------------|------------------------|------------------------|
| | | | | | |
| TR-2 SAE 1/4 | TR-3 SAE 3/8 | TR-4 SAE 1/2 | TR-5 SAE 5/8 | TR-6 SAE 3/4 | TR-7 SAE 7/8 |

| FAS Suitable for all non-soldering systems | | | |
|---|-------|------|----------------|
| | | | |
| FAS 15 cm | | | |
| Type | SAE | ODF | Length |
| FAS-2 | 1/4" | 1/4" | 6 inch (15 cm) |
| FAS-4 | 1/2 " | 1/2" | 6 inch (15 cm) |

| Fame - S Designed for the Mitsubishi BC and Samsung MCU controller/box | | | |
|---|-----------|------|--|
| | ← 12.5" → | | |
| | ← 12.5" → | | |
| Kit contains one FA 3x2 fitting and one FA 5x4 fitting, each with 12.5 inch long tube and one each TR-3 and TR-5 trumpet ring | | | |
| Type | SAE | ODF | |
| FA 3x2 | 3/8" | 1/4" | |
| FA 5x4 | 5/8" | 1/2" | |



395 Handheld Refractometer

Get accurate reading of the freezing point of fluids used in hydronic heating systems.

- Measure propylene, ethylene, glycol, and battery fluid



A788 Smoke Test Pump

- Check smoke level in flue gases of oil fired burners. High smoke levels can lead to combustion equipment failure and may indicate unnecessarily high fuel use.
- Smoke testing with the A788 only takes one minute and levels are easily determined using the included smoke scale



397 Pen-Style, pH Meter

Avoid internal material degradation by testing boiler water for proper pH.

- Wide pH range of 0.10-14.00pH covering most applications
- Operating temperature from 40 to 120 °F (5 to 50 °C) allows for temperature compensated readings
- Protective waterproof design
- Low power consumption extends battery life for low operation costs and reliability
- Auto-off after 10 minutes,
- Replaceable Glass Test Tip Electrode screws on a solid connection
- Protective case included for storage



390A TDS/Salt Meter

Prevent corrosion and contamination of equipment.

- Test condensate water in cooling tower and humidifier reservoir applications to prevent bacterial growth
- Test TDS levels in make-up water to prevent scale formation, corrosion and embrittlement
- Determine when to perform blowdown and add make-up water
- Prevent contamination and corrosion of control valves, heat exchangers and steam traps



SAIT200 Analog Insulation Resistance Tester

- Test voltages: 250V/500V/1,000V
- Insulation resistance: 100MΩ/200MΩ/400MΩ
- Continuity: 2Ω/20Ω
- Includes A085 UL listed silicone test lead set with screw on alligator clips and A073 test lead set with large alligator clips.



SDIT300 Digital Insulation Resistance Tester with AC Volts

- Test voltages: 250V/500V/1,000V
- Insulation resistance: 20MΩ/200MΩ/2,000MΩ
- AC voltage: 200V/600V
- Continuity 20Ω/200Ω
- Includes A085 UL listed silicone test lead set with screw on alligator clips and A073 test lead set with large alligator clips.

Check compressors, motor windings and transformers for insulation breakdowns. TPI insulation resistance testers are ideal for preventative maintenance and performing resistance tests.



505L Non-Contact / Contact Tachometer

Combination photo & contact tachometer with laser light source - measure from up to 25 feet away from target.

- Wide Measuring Range: 6 to 30,000 RPM
- Last Value, Max Value, Min Value: Automatically Saved and Recalled
- Measure motor input/output shaft speed
- Determine conveyor belt speed
- Confirm fan, motor, and gear RPM
- Measure RPM of flywheels and pumps
- Monitor pulley rotation RPM and turbine speeds

505L Tech Tip: It's easy to test your 505L to make sure it is operating properly. First, point the 505L at the palm of your hand and press the on button. You should see light from the output lens. Second, point the 505L at a fluorescent light and press the on button. The reading should be 7200 RPM +/- 5 RPM.

505 Digital Photo Contact Tachometer

The 505 is a combination photo and contact tachometer that also measures surface speeds of belts and wheels.

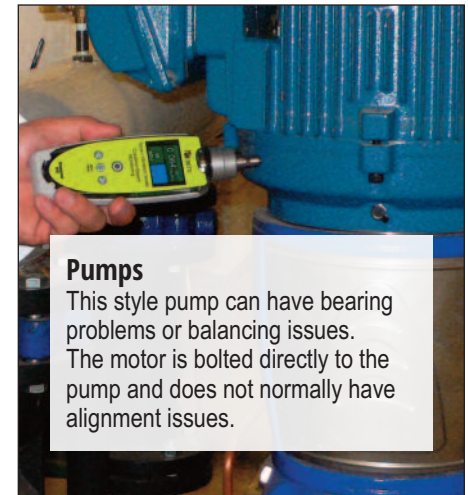




If you have pumps, fans & motors, you need Vibration Analyzers!

TPI Vibration Analyzers allow anyone to detect signs of pending machine failure - at an unexpectedly low cost.

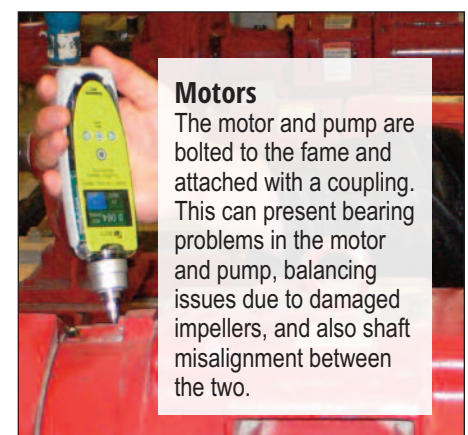
Vibration Analyzers can detect worn bearings, faulty gearboxes, unbalance, misalignment and looseness. With this information, equipment can be repaired or replaced before an expensive breakdown and shutdown occurs.



Pumps
This style pump can have bearing problems or balancing issues. The motor is bolted directly to the pump and does not normally have alignment issues.



Fans
Fans can also have bearing and balancing problems. A fan can be out of balance due to damage, dirt, or thrown weight. A bent shaft will also create a balance issue.



Motors
The motor and pump are bolted to the frame and attached with a coupling. This can present bearing problems in the motor and pump, balancing issues due to damaged impellers, and also shaft misalignment between the two.

9070 Vibration Analyzer with Built-in Accelerometer

TPI 9070 analyzes & interprets readings:

- ISO machine alarms and Bearing Damage Units (BDU) reading indicate overall machine and bearing condition
- Clear picture of 1X, 2X & 3X machine problems detects imbalance, misalignment and looseness
- 800-line spectrum with zoom and cursor to identify complex issues

9071 Vibration Analyzer with BNC Cabled Accelerometer & Magnet for Consistent Readings

Everything the 9070 can do PLUS:

- BNC cabled accelerometer with magnet for hard to reach test points and repeatable results
- Collect and store readings; 10 memory blocks with 20 readings per block for a total storage of 200 readings.
- Stored data is easily recalled and displayed.

9080 Smart Trend Analyzer

- ISO machine alarms and Bearing Damage Units (BDU) reading indicate overall machine and bearing condition
- Clear picture of 1X, 2X & 3X machine problems detects imbalance, misalignment and looseness
- 800-line spectrum with zoom and cursor to identify complex issues
- BNC cabled accelerometer with magnet for hard to reach test points and repeatable results
- Collect and store readings; 10 memory blocks with 20 readings per block for a total storage of 200 readings.
- Stored data is easily recalled and displayed.
- Asset management and trending with included VibTrend software. Ten assets with ten readings per asset.
- VibTrend Pro license allows an unlimited number of assets with ten readings per asset.

The 9080 can be an easy part of any maintenance routine:

Attach the cable to the 9080 by using the BNC connector. The meter is set to default settings which can be manually changed. See the instruction manual for setting information.

Press "on" button (the circle in the center on the 9080). The 9080 has an auto-off feature which is factory set to one minute, this can be changed to up to 60 minutes by the user.

Place the magnetic sensor on a rigid surface as close as possible to the bearing block. For best results, "roll" the magnet onto the surface. Mark a "target" on the area you choose for monitoring so that you are placing the sensor in the same spot each time you take a reading.

Overall vibration numbers will be displayed on the color-coded screen. Vibration readings include: RMS (average velocity in inch/second); Bearing Noise (BDU - Bearing damage units); and Total g (acceleration).

Upload readings to your computer with the docking station and USB cable. Capturing readings on a routine basis, and uploading that information using the VibTrend Software allows you to more clearly monitor the condition of your motors. The free software allows you to store and analyze readings for up to 10 assets. (Unlimited assets can be recorded with optional VibTrend Pro Software.)

**Built-in Bluetooth,
Android & iPhone
Compatible Tools
Save You Time &
Money. AND they
are EASY to USE!**



| | SP341 | SP555 | SP565 | SP620 | SP700 | SP1000 | DC580 Series | DC710 Series |
|--|-------------|---------------------------------|------------------------------------|-----------------------|-------------------------|------------------------|---|---|
| Measurement | Temperature | Vane Air Velocity & Temperature | Hotwire Air Velocity & Temperature | Differential Pressure | Ambient Carbon Monoxide | Ambient Carbon Dioxide | Vane & Hotwire Air Velocity & Temperature | Combustion Gas Analyzer; CO, O2, Calculates CO2 |
| Featured on Page | 16 | 13 | 13 | 10 | 13 | 13 | 13 | 5 |
| App Functionality Only | Yes | Yes | Yes | Yes | Yes | Yes | No | Yes |
| Display | No | No | No | No | No | No | Yes | No |
| Android Compatible | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| iPhone Compatible | Yes | Yes | Yes | Yes | Yes | Yes | Yes | Yes |
| Compatible with A740BT Bluetooth Printer through TPI View App | Yes | Yes | Yes | Yes | Yes | Yes | No | Yes |

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