

50,000 Count; 0-24mA Process Control Meters

TPI196

Features:

- Large 50,000 count display increases resolution and improves accuracy (1.7" x 2.75", 43mm x 70mm)
- 0-24mA output for process controls
- Triple Display shows more than one reading simultaneously
- 51 Segment Analog Bar Graph to catch fast AC fluctuations
- Back Light (LED Type) allows viewing in any light condition
- Auto Range automatically selects the best range for the measurement
- Separate battery and fuse compartment for easy replacement
- Continuity and buzzer to check for opens and shorts

APPLICATIONS

- 4~20mA Transducers (Pressure, Strain, Temperature, Flow, Level)
- Loop Powered Isolators
- Two Wire Transmitters
- Valve Positioners
- Signal Conditioners
- Process Scaled Indicators



8.75"

4.25"



TPI196

Comes with protective boot and silicone rubber (CAT IV 600V) test leads



10,000 PSI Pressure Adapter

TPIA630

Bring your DMM and digital clamp-on adapter into the automotive, hydraulic, and HVAC/R fields. Measure pressure up to 10,000 PSI and vacuum up to 700 Bar.

Digital Amp Clamp-On Testers

TPI270

Features:

- Measure motor in-rush current and run current
- Measure temperature differential with relative mode
- Frequency, Min/Max/Record, Data Hold, and Peak Hold
- Up to 40,000 Microfarads to test run and start capacitors
- 4,000 count display with 41 segment analog bargraph

All These Plus...

- Auto & Manual Ranging
- Non-contact voltage detection
- Auto Power Off after 30 minutes
- Low Ohm Range (400V)
- DCµA measurement (0.01µA resolution)

APPLICATIONS

- Measure flame safety control current
- Test run and start capacitors and motors
- Measure peak motor start up amperage
- Determine thermocouple voltage
- Test line and control voltages
- Measure heating element resistance

TPI265

Features:

- Slim jaw and body design for use in crowded electrical panels
- 4,000 count display
- Capacitance range up to 4,000 microfarads to test run and start capacitors
- 0.1 DC millivolt resolution to accurately measure thermocouples and use optional adapters
- 0.01 AC Amp resolution to measure heat anticipator current
- Frequency measurement capability

APPLICATIONS

- Test start and run capacitors
- Measure motor run current
- Measure heat anticipator current
- Determine thermocouple voltage
- Test line and control voltages
- Measure heating element resistance
- Measure and adjust variable frequency drives



10"

2.55"



8"

2.25"

Digital Insulation Resistance Tester

TPISDIT300

Check compressor, transformer, and motor windings for insulation breakdown. TPI Insulation Resistance Testers are ideal for preventative maintenance and performing resistance tests. All TPI Insulation Resistance Testers include TPIA085 UL listed silicone test lead set with screw on alligator clips and TPIA073 test lead set with large alligator clips. All TPI Insulation Resistance

Testers are:

- Easy to use
- Push button or locking operation
- Automatic discharge
- Built-in battery test

Test Voltages

250V/500V/1,000V

Insulation Resistance

2,000MV/2,000MV/2,000MV

AC Voltage

No

Continuity

200V

APPLICATIONS

- Cables
- Compressors
- Controls
- Distribution Transformers*
- Generators
- Instruments
- Motors
- Motor Windings
- Switchgear

* Medium and high-voltage power transformers would normally not be tested with these instruments



8.5"

6.25"



TPISDIT300 includes

8.5" (L) x 3.5" (W) x 6.25" (H)
2.45 lbs.

AC Safety Volt Check

TPI50



5.6"

.75"

Non-Contact Detection of 50-1,000 VAC Sound & Visual Alert!!

- Prevent electrical shocks
- Non-contact detection of 50 to 1,000 VAC
- Lifetime Warranty

TPI40



5.6"

.75"

Non-Contact voltage of 24-90 VAC

- Sensor glows red in presence of low AC voltage
- Lifetime Warranty

Call your Snap-on Account Manager for additional specifications on TPI.

Dual Trace, 20MHz Oscilloscope with True RMS Digital Multimeter

TPI460

Features:

- 20 MHz Bandwidth captures signals from AC/DC drive motors, sensors, actuators, line and control voltages, UPS and industrial machines
- Cursor Readout measures the width and amplitude of the signal and display it on the screen instead of trying to figure it out manually
- Decibels accurately measure sound signals
- Pre and Post Triggering views the waveform before and after the point the scope triggers at to find glitches and other anomalies with the signal
- Trend Mode graph readings over a predetermined time period to check for surges or dropouts
- Dual Input views two waveforms on the display for comparison and troubleshooting
- Bright LCD Backlight adjusts brightness levels for clarity in any light condition

- True RMS DMM measures AC/DC volts up to 600V, frequency to 20 MHz, and resistance to 20 Meg ohm. Obtain accurate measurements of non-sinusoidal AC voltage and current waveforms found in controls and circuits with True RMS.
- Real Time Sample Rate capture spikes and dropouts of industrial signals with real time sampling of 25 megasamples per second
- Optically isolated RS232 outputs transfer data safely without a direct connection to your computer's circuitry
- Continuous Autotest feature automatically determines the correct vertical and horizontal settings for optimum waveform viewing. Autotest provides hands free operation while moving between posts.

APPLICATIONS

- Power quality
- Variable speed drives
- Industrial motor controls
- Battery testing
- Programmable logic controls
- NC/CNC machines
- Uninterruptible power supplies
- Audio/Video
- Industrial lighting controls
- Factory automation
- Line conditioners
- Voltage regulators
- Inverters
- Gaming industry



TPI460

Comes with protective boot

Single Trace, 1MHz Oscilloscope with True RMS Digital Multimeter

TPI440

Features:

- Auto Ranging 4,000 Count True RMS DMM: The TPI440 has 9 measurement functions and 0.3% basic DC accuracy.
- 1 MHz Single Trace Oscilloscope: View industrial power signals such as motor controls, UPS, switching power supplies, and PLC controls with detail and clarity.
- Trend Mode: Graph readings over a predetermined time period to check for surges or dropouts.
- Component Test: Check voltage-current signatures on resistors, capacitors, and semiconductors
- Logic Test: Indicates transitions up to 2MHz
- Frequency Counter: Measure low frequency signals from 1Hz to 2MHz and display duty cycle, pulse width and period.

APPLICATIONS

- POWER QUALITY
- INDUSTRIAL MOTOR CONTROLS
- View waveform to verify power equality delivered to variable speed drives.
- Measure voltage and frequency at the same time
- 400µF to check motor start and run capacitors
- DC µAmps for checking flame safety controls
- DC mV for checking thermocouples

PC/Printer compatibility to RS-232C Port Optional accessory TPIA402 allows user to download data or waveforms to PC for archiving, processing, and report generation. Ideal for extended monitoring.

Accessories For : TPI440, TPI460, & TPI192/TPI194

TPIA402 PC software and RS232 cable for TPI440

TPIA403 Protective boot for TPI440

TPIA900 Soft zipper carrying case for TPI440 with shoulder strap

MT10100 Low current adapter for TPI440, TPI460, TPI192/TPI194

MT5030 Current shunt adapter for TPI440, TPI460, TPI192/TPI194

TPIA312 Dual input temperature adapter for TPI440, TPI460,

TPIA251 400 AC mV output adapter for TPI440, TPI460, TPI192/TPI194

EETA501B 400 AC/DC amp adapter for TPI440, TPI460, TPI192/TPI194

EETA502B 1,000 AC/DC amp adapter for TPI440, TPI460, TPI192/TPI194

TPIA085 UL listed silicone test leads with TPIA150 screw on alligator clips for TPI440, TPI460, TPI192/TPI194



TPI440

Comes with protective boot

50,000 Count True RMS Digital Multimeter

TPI192, TPI194

Features:

- Large 50,000 count display increases resolution and improves accuracy (1.7" x 2.75", 43mm x 70mm)
- Triple Display shows more than one reading simultaneously
- 51 Segment Analog Bar Graph to catch fast AC fluctuations
- Back Light (LED Type) allows viewing in any light condition
- Auto Range automatically selects the best range for the measurement
- Separate battery and fuse compartment for easy replacement
- True RMS needed to accurately measure nonsinusoidal AC voltage and current waveforms found on controls and circuits

- Increased safety with Silicone rubber 1,000V CAT III, 600V CAT IV, 10A test leads (CE & cUL listed)
- Capacitance measures the value of capacitors
- Auto Power Off DMM will automatically power down after approximately 15 minutes of inactivity to extend battery life. Disable Auto Power Off: Hold down the REC button and turn the meter on.
- Diode Test displays approximate forward bias voltage
- Continuity and buzzer to check for opens and shorts
- Time Stamp Logging logs up to 100 readings (min/max/avg) with a time stamp
- Pulse Width measures the duration of a pulse
- Duty Cycle displays the total "on" time of a component
- Inductance measures the value of inductors and coils
- Conductance measures the ability of a material to conduct electricity
- Temperature for use in HVAC, electrical, and electronic applications
- dB Readout displays a voltage level without regard for impedance



4.25"

TPI192 APPLICATIONS

- Electronic
- 600V CAT III

TPI194 APPLICATIONS

- Electrical
- Industrial
- 600V CAT IV



TPI192, TPI194, TPI196

Has tilt stand, separate battery and fuse compartment

Call your Snap-on Account Manager for additional specifications on TPI.

See Warranty Information on inside front cover

Snap-on Industrial N117



TPI621C3

TPI Pressure Meters

TPI621C3 48 inH2O Digital Manometer Kit

Use to: adjust appliance regulators; set delivery pressures; make regulator adjustments for pressure and lock-up tests; test pressure switch operation on 2-stage gas furnace in positive and negative pressures; test air flow static pressure drop; draft pressure measurements; and check static pressure in exhaust stack when installing high efficiency gas hot water heaters.

TPI621C3 Pressure Kit includes:

- TPI621 Dual Input Digital Manometer
- TPIA605 (2) 1/4" tapered "T"
- TPIA603 (2) brass fitting, 1/4" NPT to 1/4" barb
- TPIA774 6' silicone tubing
- TPIA776 (2) static tip
- TPIA908 shoulder strap carrying case

TPI655NPT 100 PSI Digital Manometer

Use the rugged TPI655NPT to measure positive and differential pressure.

- 1/4" Female NPT inputs
- Push button zero for altitude correction
- Seven selectable units of measure to choose from: mmHg, inHg, kPa, mBar, PSI, inH2O, and mmH2O
- Trim or smooth functions help stabilize readings by giving an average
- Large, easy-to-read LCD with backlight
- Record stores min/max readings
- Data hold to freeze reading on LCD



TPI655NPT

Ambient Co-Tester

TPI770 Carbon Monoxide Monitor

This palm-sized unit measures CO in ambient air and displays readings in 1 ppm increments.

Features:

- Measure 0 to 999 PPM CO
- Displays the max. CO reading in PPM since power on
- Displays, in hours and minutes, time elapsed since power on
- Displays user set value of audible and visual alarm
- Audible alarm can be switched on or off by pressing SEL button



TPI770

2.75"

TPI Gas Test Equipment

TPI712A740 Rugged Flue Gas Analyzer with IR Printer

FIVE TOOLS IN ONE!

Features:

- CO Analyzer
- Combustion Efficiency Analyzer
- Differential Thermometer
- Combustible Gas Detector
- Differential Digital Manometer
- Data Logging & PC Interface with Optional IRDA Adapter

TPI708C10 (not pictured)

Similar to TPI712A740 but features a stand alone manometer in place of a built-in unit. Includes TPI321 Manometer, Flue Gas TPI708 Analyzer, A740 Printer and case.

TPIA740 Infrared Printer

Standard with TPI712A740 and TPI708C10.

NOTE: When selecting oil as fuel use optional TPIA773 filter or reading may become erratic. When working on high efficiency or condensing boilers, the TPIA799 filter is recommended.

Combustible Gas Detection

TPI775 Combination Ambient CO & Combustible Gas Leak Detector

The TPI775 is a state-of-the-art Carbon Monoxide and Combustible Gas Leak Detector. It is the first of its kind to combine both detection technologies into one easy to use and affordable, hand-held instrument.

Features:

- Easy, one hand operation
- Auto zero
- Back light
- Visible and audible alarm
- Soft Pouch Included

TPI720B

Similar to TPI775 but without Co-Detection.

TPIHXG2

Similar to TPI720B but with intrinsically safe rating.

Features:

- UL 913 intrinsically safe
- Calibrated to NIS traceable standards



TPI775

9.5"

TPIHXG2



TPI720B

6"

2.75"



TPI712A740

TPIA740

6"

3.75"

3"

TPI714 Flue Gas Analyzer with NOX

FIVE TOOLS IN ONE!

- Combustion Efficiency Analyzer
- NO & NOX Analyzer
- CO Analyzer
- Differential Thermometer
- Differential Digital Manometer



3.75"

TPI Air Velocity Meters

TPI555C1 Vane Air Velocity Meter

Use for air duct analysis, fume hoods, floor registers, and exhaust grills.

Features:

- Air flow 0.4 to 25 m/s (Also reads km/s, ft/min, knots/h, miles/h)
- Temperature Range: -5° to 175° F (-20° to 80°C)
- Data record function for maximum and minimum temperature and air velocity reading
- Download to a computer using the RS-232 port and optional TPIA500 cable
- 39" cable length, hard wired
- Data Hold and Auto Power Off
- Free Boot and Case Included

TPI565C1 Hot Wire Air Velocity Meter

Use for air flow measurements in heating, ventilation and air conditioning systems and where low and high feet per minute readings are critical - you must use a hot wire below 80 feet per minute.

Features:

- Air flow 0.2 to 20 m/s (Also reads km/s, ft/min, knots/h, miles/h)
- Temperature: -5° to 175° F (-20° to 80°C)
- Data record function for maximum and minimum temperature and air velocity reading
- Download to a computer using the RS-232 port and optional TPIA500 cable. (The TPI565 uses Microsoft® Hyper Terminal to download and display air velocity and temperature on your PC.)
- 39" cable length, hard wired, telescoping tip expands from 10" to 37" (cable length decreases to 12" at full extension)
- Data Hold
- Auto Power Off
- Protective Boot Included



TPI555C1

TPI565C1

3"

Refrigeration Leak Detectors

TPI750A, TPI753, TPI755



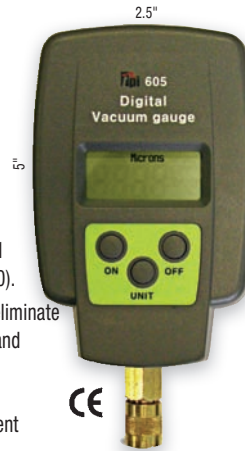
The TPI700 series automatically detects all existing refrigerants and blends including 404A, R221 PURON® 410A and *R-507 (AZ50).

- Fully adjustable tic rate to eliminate background concentration and pinpoint leaks
- Visual and audible tic rate
- Optional earphone attachment
- One hand operation

TPI750A 0.3 oz/yr sensitivity	TPI753 0.2 oz/yr sensitivity	TPI755 0.1 oz/yr sensitivity
---	--	--

Digital Vacuum Gauge

TPI605



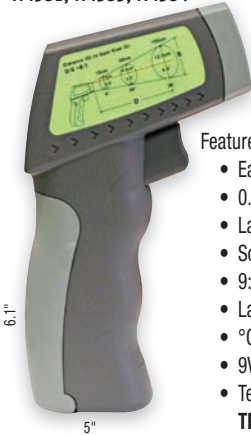
- Measure vacuum from 12,000 to 0 microns
- Reads vacuum in seven international units of measure (Microns, PSI, InHg, mBar, Pascals, Torr, and mTorr)
- Display updates every 0.5 seconds
- Auto power off after 10 minutes when vacuum above 12,000 microns (12 Torr)
- Built in hook for hanging
- Cleanable sensor
- 300 PSI overpressure

APPLICATIONS

- Verify the vacuum before you change a refrigerant system.
- Prevents moisture and air being left in the system.
- Finds small leaks.

IR Non-Contact Temperature Tester

TPI381, TPI383, TPI384



Use this instrument to measure surface temperature and watch the LCD immediately display accurate data without the use of a probe.

Features:

- Easy to use single button operation
- 0.1 resolution for best reading (380/381)
- Last reading held for 30 seconds
- Soft holster pouch included
- 9:1 distance to spot ratio
- Large, easy to read backlit display
- °C and °F selectable
- 9V battery included
- Temperature range:
 - TPI381:** 0°F to 572°F (-18°C to 300°C)
 - TPI383:** -31°F to 999°F v (-35°C to 560°C)
 - TPI384:** -4°F to 1,832°F (-20°C to 1,000°C)

Dual K-Type Thermometer Kit for High Temperature over 400°F

TPI343C1



New TPI343 Dual Input K-Type Thermometer

Easy-to-use and read thermometer features:

- Dual Input, calculates temperature differential
- °C or °F Selectable
- Records and displays minimum and maximum temperatures.
- Hold function freezes reading on display

Kit Contains: TPI343; TPIA304 tilt-stand protective boot; (2) TPIGK11M fiberglass, beaded, K-type thermocouple probes; TPIA340 soft pouch

ALSO AVAILABLE:

TPI343C3 (For Differential Temperature): TPI343; TPIA304 tilt-stand protective boot; (2) TPICK21M K-type thermocouple pipe clamp probes; (1) TPIGK13M Teflon, beaded, K-type thermocouple probe; TPIA908 shoulder strap carrying case

I/R Contact/Non-Contact Tester

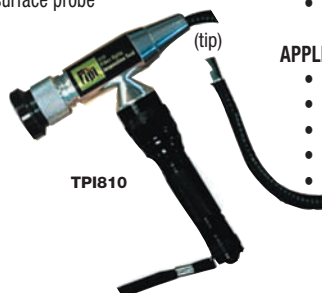
TPI376C1, TPI377C1



HVACR technicians kit Combines IR with contact temperature measurement. Quickly measure surface temperature with the Non-contact TPI376 IR Gun. Use contact probe to convert to contact testing.

376C1 HVACR Kit Includes:

- TPI376 IR Thermometer
Temp. Range: -58°F to 950°F (-50°C to 510°C)
- TPIGK13M K-type probe
- TPIHK1 1M handle
- TPICK15M heavy duty surface probe
- TPIGK16M air probe
- TPICK13M chisel probe
- TPIA905 carrying case



Fiber Optic Inspection Tool

TPI810

Features:

- Machined aluminum housing is easy to hold and durable
- Coated 48" flexible fiber optic cable for accessibility to tight areas with bends and curves
- Fiber optic cable maintains position after adjustment of fiber optic bundle
- Hi-resolution 8,000 pixel image offers enhanced vision and clarity
- One hand focus adjustment
- 45° glass inspection mirror for side viewing
- Super bright LED flashlight source lowers heat build-up during operation while providing longer battery life

APPLICATIONS

- Perform non-destructive inspections
- Examine heating & cooling ductwork
- Check for blocked evaporator coils
- Inspect boilers without disassembly
- Look inside oil burning furnaces for igniter components

OPTIONAL ACCESSORIES

TPIA813	blue LED flashlight for UV dye
TPIA814	magnet for 810

Optional K-Type Probes

Teflon, beaded K-type probe TPIGK13M

K-type surface probe TPICK17M

Standard K-type penetration probe TPIFK21M

Pipe Clamp Probe TPICK21M

Call your Snap-on Account Manager for additional specifications on TPI.

See Warranty Information on inside front cover