



pressure meters



The ETI range of pressure meters are designed for use in measuring non-corrosive gauge or differential air or gas pressure in a wide range of industries.

applications

- flue draught measurement
- gas pressure in heating appliances
- air conditioning ducts
- monitoring of filter differential pressure
- velocity measurement with a pitot tube

absolute, gauge or differential pressure

If serious errors are to be avoided, it is important when taking pressure measurements to be clear which mode of measurement is to be used: absolute, gauge or differential.

absolute

If a vessel were to contain no molecules whatsoever, the pressure would be zero. Pressure measured on a scale which uses this zero value as its reference point is said to be absolute pressure.

gauge

In everyday life, however, many applications of pressure are not so dependent on the absolute pressure value, but the difference between the absolute and the pressure of the atmosphere. For example, a punctured tyre with no air in it would read 'zero' on a tyre pressure gauge, even though still containing atmospheric air. Such gauges are designed to measure pressure values that are expressed with respect to atmospheric pressure and thus indicate zero when the measurement port 'merely' contains molecules at atmospheric pressure. These measurements are known as gauge pressure measurements. Thus the difference between an absolute pressure value and a gauge pressure value is the variable value of the atmospheric pressure.

differential

In other applications, where knowledge of the pressure difference between two places or systems is needed, the reference pressure may not necessarily be either zero or the atmospheric pressure but some other value. These are known as differential pressures. For example, the flow of gas along a pipeline depends on the pressure difference between the ends of the pipe and, in practice, both ends are usually at comparatively high pressures.

manometers

A manometer is a pressure measuring instrument that measures low pressure and is used, primarily, for measuring gas pressure or low atmospheric pressure and normally measures in mbar.

pressure meters

A pressure meter is a pressure measuring instrument that measures high pressure, non-corrosive air or gas and normally measures in psi (pounds per square inch).





9100 & 9200 manometers

- ✓ digital manometers - low pressure mbar meters
- ✓ two models - gauge or differential
- ✓ ideal for a range of gas applications
- ✓ high accuracy, performance & repeatability

The digital 9100 and 9200 industrial manometers offer high accuracy, performance and repeatability. The 9100 manometer indicates gauge pressure. The 9200 manometer indicates differential pressure. Both the 9100 and the 9200 measure pressure over the range of -100 to +100 mbar with a resolution of 0.1 mbar. Both instruments feature over pressure protection to at least twice the measuring capacity (200 mbar).

These easy to use manometers are ideal for plumbers and gas engineers to measure domestic gas pressures and low pressure, non-corrosive air or gases in HVAC applications. The units can be used to measure air pressure in ductwork or pressure drops across filters to determine performance.

The instruments are housed in robust ABS cases and feature an easy to read 3½-digit LCD display with auto zeroing and low battery indication. The 9100 and 9200 digital manometers are powered by a 9 volt PP3 alkaline battery with a minimum life expectancy of 40 hours continuous use.

Both the 9100 and 9200 digital manometers are supplied with a battery, operation manual and two 500mm long x 6mm ID connection hoses.



optional accessories

The protective PVC boot helps to protect the instrument against accidental damage. The black acrylic wall bracket enables the user to store the instrument safely when not in use (screws not supplied).



specification	9100 - gauge	9200 - differential
range	±100 mbar	±100 mbar
resolution	0.1 mbar	0.1 mbar
accuracy	±1% ±1 digit	±1% ±1 digit
operating temperature range	0 to +40°C	0 to +40°C
battery	9 volt PP3 alkaline	
battery life	40 hours	
display	12.7mm LCD	
dimensions	36 x 80 x 147mm	
weight	210 grams	

order code	description
220-100	9100 manometer - gauge
220-200	9200 manometer - differential
830-200	protective PVC boot
832-110	wall bracket





9200 series pressure meters

- ✓ digital differential pressure meters
- ✓ five models available
- ✓ ideal for a wide range of applications
- ✓ from ± 1 to ± 100 psi



This range of five industrial differential pressure meters offers high accuracy, performance and repeatability. The pressure meters allow the user to indicate the differential or gauge pressure over the range of ± 1 , ± 5 , ± 15 , ± 30 or ± 100 psi. All instruments feature over pressure protection to at least twice the measuring capacity.

These easy to use pressure meters are ideal for measuring non-corrosive gauge or differential air/gas pressure in a wide variety of industries. The instruments are housed in robust ABS cases and feature an easy to read 3½-digit LCD display with auto zeroing and low battery indication. The 9200 series of digital pressure meters are powered by a 9 volt PP3 alkaline battery with a minimum life expectancy of 40 hours continuous use.

Each pressure meter is supplied with a battery, operation manual and two 500mm long connection hoses. Please note: the 9201 and 9205 are supplied with the large low pressure barbed stainless steel connectors (for 6mm ID tube). The 9215, 9230 and 92100 are supplied with the small high pressure barbed stainless steel connectors (for 4mm ID tube).



optional accessories

The protective PVC boot helps to protect the instrument against accidental damage. The black acrylic wall bracket stores the instrument safely (screws not supplied).



specification	9201	9205	9215	9230	92100
range	± 1 psi	± 5 psi	± 15 psi	± 30 psi	± 100 psi
resolution	0.01 psi	0.01 psi	0.01 psi	0.1 psi	0.1 psi
accuracy	$\pm 1\% \pm 1$ digit				
operating temperature	0 to $+40^{\circ}\text{C}$				
battery	9 volt PP3 alkaline				
battery life	40 hours				
display	12.7mm LCD				
dimensions	36 x 80 x 147mm				
weight	210 grams				

order code	description
220-201	9201 pressure meter ± 1 psi
220-205	9205 pressure meter ± 5 psi
220-215	9215 pressure meter ± 15 psi
220-230	9230 pressure meter ± 30 psi
220-299	92100 pressure meter ± 100 psi
830-200	protective PVC boot
832-110	wall bracket





8200 series pressure meters

- ✓ choice of four models
- ✓ eleven selectable measuring units
- ✓ high accuracy instruments
- ✓ measures non-corrosive gauge or different air/gas pressure

This range of four microprocessor based pressure meters offers high accuracy and repeatability. The instruments allow the user to select one of 11 measuring units; bar, mbar, psi, kPa, inHg, mmHg, oz/in², inH₂O, ftH₂O, cmH₂O and kg/cm². All instruments feature over pressure protection to at least twice the measuring capacity. The units incorporate a manual zeroing, a max/min and average pressure reading function and a LCD backlight.

These easy to use digital pressure meters are ideal for measuring non-corrosive gauge or differential air or gas pressure in a wide range of applications. The instruments are housed in robust ABS cases and feature a custom LCD display with hold, low battery, max/min/average indication. The pressure meters are powered by a 9 volt PP3 alkaline battery with a minimum life expectancy of 60 hours continuous use and each instrument incorporates an auto-power off facility, turning the instrument off automatically after approximately 20 minutes. Alternatively, an optional 9/230 volt AC/DC power adaptor is available for continuous monitoring. The pressure meters incorporate, as standard, a RS232 output socket for use with the optional software.

Each pressure meter is supplied with two 500mm connection hoses. The 8205 pressure meter is supplied with large low pressure barbed connectors (for 6mm ID tube). The 8215, 8230 and 82100 pressure meters are supplied with small high pressure barbed connectors (for 4mm ID tube).

optional accessories

An optional protective PVC boot is available that helps to protect the instrument against accidental damage. The RS232 lead and software is available as an optional extra allowing the user to log, record and analyse data.



specification	8205	8215	8230	82100
psi range	±5 psi	±15 psi	±30 psi	±100 psi
psi resolution	0.003 psi	0.01 psi	0.02 psi	0.1 psi
inH ₂ O range	±138 inH ₂ O	±415 inH ₂ O	±830 inH ₂ O	±2768 inH ₂ O
inH ₂ O resolution	0.12768 inH ₂ O	0.32768 inH ₂ O	0.52768 inH ₂ O	22768 inH ₂ O
mbar range	±345 mbar	±1034 mbar	±2068 mbar	±6895 mbar
mbar resolution	0.2 mbar	1 mbar	2 mbar	4 mbar
kgcm ² range	±0.35 kgcm ²	±1.05 kgcm ²	±2.10 kgcm ²	±7.03 kgcm ²
kgcm ² resolution	0.001 kgcm ²	0.001 kgcm ²	0.002 kgcm ²	0.004 kgcm ²
max/min pressure	20 psi	30 psi	60 psi	150 psi
accuracy	±0.3% of full scale @ +25°C			
response time	0.5 seconds			
operating temperature	0 to +50°C			
battery & battery life	9 volt PP3 alkaline - 60 hours			
display	custom LCD			
dimensions	30 x 72 x 180mm			
weight	215 grams			

order code	description
825-005	8205 manometer ±5 psi
825-015	8215 manometer ±15 psi
825-030	8230 manometer ±30 psi
825-100	82100 manometer ±100 psi
825-200	RS232 lead & software
812-003	9/230 volt AC/DC power adaptor
825-210	protective PVC boot

