

DG-700 Pressure and Flow Gauge

Today's building performance test procedures require diagnostic tools that are versatile, accurate and easy to use. The Energy Conservatory's new DG-700 Pressure and Flow Gauge combines all these qualities into a sophisticated hand-held gauge that sets a new standard for performance testing equipment. The DG-700's advanced design gives you the power and flexibility needed to handle all types of building performance investigations.

The DG-700 Pressure and Flow Gauge is a multi-functional differential pressure gauge with 2 independent measurement channels. In addition to providing high-resolution pressure measurements, the DG-700 is programmed to operate with other Energy Conservatory test devices to provide airflow measurements during building performance test procedures. The DG-700's dual pressure channels and air flow measurement features make it ideally suited for a wide range of building performance testing applications including:

- Blower Door airtightness testing.
- Exhaust fan flow measurements.
- Duct system airtightness testing.
- Air handler flow measurements.
- Building depressurization and combustion safety testing.
- Static pressure and velocity measurements using a Pitot tube.

Quality Features

- Simultaneous display of 2 independent differential pressure channels, A and B.
- Accurate pressure measurements, $\pm 1\%$ of reading from $-1,250$ to $+1,250$ Pascals, or -5 to $+5$ in. H_2O .
- Auto-zeroing of both measurement channels adjusts for position and temperature during operation.
- Choice of 4 time-averaging options, 1, 5, 10 second average and Long-Term or continuous average.
- Choice of air flow units on Channel B, CFM, m^3/hr , or l/s .
- A HOLD button temporarily freezes the most recent display readings.
- The DG-700 is programmed to calculate and display air flow readings on Channel B for the following Energy Conservatory test devices:

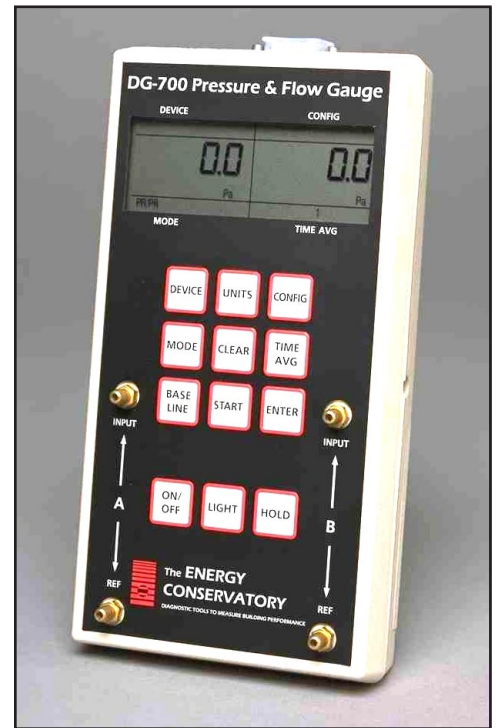
Model 3 Minneapolis Blower Door™ fans (110V and 220V).

Model 4 Minneapolis Blower Door fans (220V).

Series A and B Minneapolis Duct Blaster® fans.

Exhaust Fan Flow Meter.

TrueFlow® Air Handler Flow Meter.



Specialised performance testing requires specialised measurement capabilities

- The "Baseline" feature on Channel A allows the user to measure and record a baseline pressure reading, and then display the baseline adjusted reading.
- The specialised @50 and @25 Leakage Measurement Modes make it simple to conduct single-point airtightness tests of building and duct systems. Estimated leakage rates displayed on Channel B are continuously adjusted to a test pressure of either 50 Pascals or 25 Pascals. Choice of leakage units (cfm @, m^3/hr @, l/s @, sq. inches @, sq. centimeters @).
- The Air Handler Flow Measurement Mode is designed for measuring air handler flow rates using a TrueFlow Air Handler Flow Meter or a Duct Blaster fan.
- The DG-700 can be used along with a computer and specialised TEC software to conduct automated Blower Door tests and for data logging of pressure measurements from both channels.

The DG-700's versatility and advanced features make it a "must have" tool for all performance testing contractors. Diagnostic tools from The Energy Conservatory are the cornerstones to more efficient, affordable, and healthy buildings and HVAC systems.

Call BSRIA Instrument Solutions for more information!



**The ENERGY
CONSERVATORY**

DIAGNOSTIC TOOLS TO MEASURE BUILDING PERFORMANCE

specifications

Number of Independent Pressure Channels: 2

Pressure Range: -1,250 to +1,250 Pascals (-5 to +5 in. H₂O)

Display Resolution: 0.1 Pa (0.0001 in H₂O)

Accuracy: 1% of pressure reading or .15 Pa, whichever is greater.

Units of Measure: Channel A – Pascals, in. H₂O

Channel B – Pa, in H₂O, CFM, CFM@50, CFM@25, m³/h, m³/h@50, m³/h@25, l/s, l/s@50, l/s@25, in²@50, in²@25, cm²@50, cm²@25, fpm, m/s

Auto-Zero: On start up and then once every 10 seconds

Time Averaging: 1, 5, 10 seconds and Long-Term (continuous update)

Operating Temperature Range: 32° F to 120° F (0° C to 48° C)

Storage Temperature Range: -4° F to 160° F (-20° C to 71° C)

LCD Display: 3.193 x 1.16 in. (8.11 x 2.946 cm)

Display Backlight: Manually operated, timed off after 10 minutes.

Power: 6 - AA alkaline batteries, supplied. AC power adapter optional.

Battery Life (Alkaline): Over 100 hours continuous use.

Auto-Off: After 2 hours from last keyed entry, unless disabled by user.

Weight: 16.5 oz. (0.468 kg)

Dimensions: 7.5 in. x 4 in. x 1.25 in. (19.5 cm x 10.16 cm x 3.175 cm)

Modes

Pressure/Pressure

Pressure/Flow *

Pressure/Flow @50 *

Pressure/Flow @25 *

Pressure/Air Handler Flow *

Pressure/Velocity

* Flow measurements are compatible with Models 3 & 4 Blower Door™, Series A & B Duct Blaster® fans, TrueFlow® Air Handler Flow Meter and Exhaust Fan Flow Meter.

Automated Blower Door Tests and Data Logging

The DG-700 can be used to conduct automated Blower Door tests. Requires purchase of TECTITE 3.0 or higher, modified Blower Door speed controller, fan control cable, and serial cable to connect DG-700 to a computer.

Data logging of pressure measurements from both channels requires purchase of TECLOG for Windows® and serial cable to connect DG-700 to a computer.

DG-700 Kit includes:

DG-700 Digital Pressure Gauge, protective carrying case, static pressure probe, 10 ft (3 m) red hose, 15 ft (5 m) green hose, instruction manual, 2 year warranty.

features



The continuous display of both channels on the DG-700 can make using the Minneapolis Blower Door, Duct Blaster, True-Flow Air Handler Flow Meter and the Exhaust Fan Flow Meter easier and faster.



To Order, or for more information contact: **BSRIA Instrument Solutions**

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Specifications subject to change.

Minneapolis Blower Door™ is a trademark of The Energy Conservatory.
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