



**BGI**

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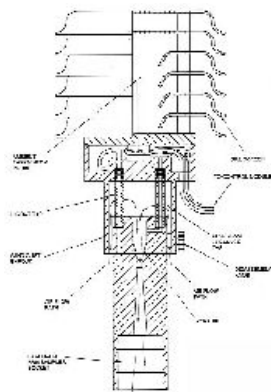
## deltaCal Volumetric Air Flow Calibrator



The BGI deltaCal is the first and only volumetric flow calibration/audit device which gives a direct indication of volumetric flow rate, barometric pressure, ambient temperature and filter temperature in one instrument. It was developed for use with U.S. EPA PM<sub>2.5</sub> designated samplers and their PM<sub>10</sub> derivatives. With an accessory adapter it is usable with any air sampler in the 2 to 20 Lpm range. The Euro version has a range of 10-60 Lpm.

It is the only field audit/calibration device which meets the same temperature criteria as the EPA designated samplers themselves. The temperature range is -30 to 40 C. The unit is NIST traceable and was designed and manufactured in BGI's ISO 9001 facility.

The heart of the deltaCal is a venturi which is superior to an orifice in that it offers no sharp edges which can be damaged and a 90% recovery of the measurement pressure drop, important when calibrating some forms of speciation samplers or other critical orifice controlled devices.



Sectional View of  
Flow Measuring Head

### Applications

- Calibration and audits of PM<sub>2.5</sub> and PM<sub>10</sub> samplers to U.S. EPA requirements
- May be used on any sampler in the 2 to 20 Lpm range
- Usable in field or laboratory
- Calibration of European PM<sub>10</sub> samplers operating at 38.4 Lpm
- Calibration of 50 Lpm DICOT samplers

### Features

- One switch (off/on) operation -- all data displayed on screen
- No moving parts
- 20 hour battery life (4-AA)
- Furnished with universal power supply (120/240 VAC)
- Supplied software, with download and reporting capability
- New **EPA PM<sub>2.5</sub> & Chemical Speciation Sampler SOPs** using **BGI triCal Calibrators**.



Typical Computer Screen  
Display -- deltaCal  
Software





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## Specifications

### deltaCal Specifications

Flow Rate Range 2-20 Lpm (Euro 10-60 Lpm)

Temp. operational -30 C to 40 C range

Temp. reading -40 C to 50 C range

Baro. pressure 400 to 800 mm of Hg range (U.S. version)  
534 to 1066 millibars (Euro version)

### Dimensions

Measuring 5 in. Max OD (12.7 cm) X 10 in. Head high (25.4 cm)

Control 8 in. high (20.3 cm) X 4 in. wide  
Module (10.15 cm) X 1.7 in. thick (4.32 cm)

Combined 2.2 lbs (1 kg)  
Weight

### Hand-Held Temperature Probe

Length of 33 in (83.8 cm)  
Cable

Length of 5 in. (12.7 cm)  
Probe

## Ordering Information

Part#	Description
DC1	DeltaCal(calibration range 2-20 lpm), Complete in Carrying Case
DC10	Adapter - DeltaCal to 3/8" Hose Barb
DC100	DeltaCal(calibration range 10-60 lpm), Complete in Carrying Case
DC100MB	DeltaCal(calibration range 10-60 lpm), Complete in Carrying Case, BP in millibars
DC11	Adapter - DeltaCal to 1/2" Hose Barb
DC12	Recalibration
DC1MB	DeltaCal(calibration range 2-20 lpm), Complete in Carrying Case, BP in millibars
DC2	Extension Temperature Probe
DC3	120-240 Volt Power Supply
DC4	Fitted Hard Carrying Case
DC6	Pressure Tap "O" Rings (4) (006S)
DC7	Venturi Thumb Screw - each
DC8	Adapter - DeltaCal to 1/4" Hose Barb
DC9	Adapter - DeltaCal to 5/16" Hose Barb
X010	Replacement Socket "O" Rings (2 sets of 2 rings) (026B)

