

## Bios Defender 510/520 Flow Rate Calibrators

### Introduction

The Defender series of high accuracy flow rate calibrators builds on the long and proven tradition of the earlier DryCal units and provide many user enhancements. These include better accuracy, smaller and lighter weight, illuminated graphical display and a full menu system that is quick and easy to understand. The basic Defender 510 models will satisfy most general requirements but for extra functionality the 520-model range is also available.



### Key benefits

- ❑ Quick simple and easy flow calibrations with personal air sampling pumps
- ❑ Accurate flow readings  $\pm 1\%$  over wide flow ranges
- ❑ Over 30% lighter than previous DryCal model
- ❑ Convenient to use
- ❑ Large graphical display with backlight for field use
- ❑ 2 main models
- ❑ 3 versions depending upon application
- ❑ Ideal for use with Casella Apex sampling pumps

### Applications

- ❑ Primary standard calibration of any flows within the specified ranges
- ❑ Traceable calibrations to NIST
- ❑ Convenient shock resistant housings for increased ruggedness
- ❑ Ideal calibrators for field use under difficult conditions
- ❑ Navigation menus for more intuitive operation by all users
- ❑ Choose between l/m, ml/m, cc or cfm units with up to 100 averages per reading

Features common to both models include up to one hundred readings in a group average. Take individual readings, continuous hands-free readings, or set to read in time intervals, anywhere from one minute up to sixty minutes between readings. The Defender 520 is the ideal "three-in-one" calibrator – use it to record ambient temperature and pressure conditions during the calibration process for an enhanced audit trail (the 510 model does not record local environmental ambient conditions).

### Software

Defender comes standard with an integrated serial PC interface and Bios Optimizer 110 software for transfer of volumetric flow data, (as well as ambient temperature and pressure conditions in 520 model only), to a text file, and includes automatic recording and graphing of flow measurements. An Optimizer 120 software upgrade is available for the creation of air sampler profiles, sampler calibration data recording and storage, searching, calibration report printing and other capabilities.

### Ordering information

Bios Defender 510 Model  
510-L  
510-M  
510-H  
Bios Defender 520  
520-L  
520-M  
520-H

Basic model for general purpose work  
Low flow range model 5 ml/m to 500 ml/m  
Medium flow range model 50 ml/m to 5000 ml/m  
High flow range model 300 ml/m to 30000 ml/m  
Records ambient atmospheric conditions too for audit calibration trail  
Low flow range model 5 ml/m to 500 ml/m  
Medium flow range model 50 ml/m to 5000 ml/m  
High flow range model 300 ml/m to 30000 ml/m

All models are supplied with comprehensive operational instructions and 110V ac mains charger unit