Definer 220

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Featuring a number of quality and performance enhancements over traditional flow meter technologies, the Definer 220 offers:

- Quick Start Operation
- Manual or Hands-free Primary Measurement
- Graphical LCD Display
- User-selectable Flow Units and Time Intervals
- Fully Customizable

Bios DryCal® TECHNOLOGY

Flexible Ways of Working

No matter your application, the portable Definer 220 is ready to go to work for you. Because it's a true volumetric standard based on the principle of positive displacement, the Definer 220 provides immediate indication of the actual gas flow rate, accurately and independantly of the gas type. It also includes integrated temperature sensors and pressure transducers in the flow stream, so you can compensate for standard conditions - allowing traceable verifications of mass flow devices, before or after you use them and wherever they're located.

A versatile, push-button flow meter, the Definer 220 is also a primary flow standard, enabling you to accurately calibrate a variety of instrumentation while maintaining an ISO 17025-traceable audit trail.

- **Reliable -** 15 years of Proven DryCal® Technology
- **Accurate -** Backed by ISO 17025; NVLAP accredited
- **Portable -** Lightweight and impact-resistant
- **Simple -** Push button testing; no user interpretation or external calculations required

Flow Ranges	**Low (L)** 5 scc/min - 500 scc/min* **Medium (M)** 50 scc/min - 5,000 scc/min* **High (H)** 300 scc/min - 30,000 scc/min*
Accuracy	1% Standardized / 0.75% Volumetric
Size	Small enough to fit easily in your hand; slim enough to slide into a briefcase or tote.
Weight	29 oz / 820 g
Dimensions (H x W x D)	5.5 x 6 x 3 in / 140 x 150 x 75 mm

*At gas pressure of 760 mmHg, and a gas temperature of 25° centigrade with standardization temperature set to 0° centigrade.

User-Selectable Measurement Units

Volumetric Flow	mL/min L/min cc/min cf/min
Standard Flow	smL/min sL/min scc/min scf/min
Pressure	mmHg PSI kPa
Temperature	°C °F

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Bios meets the highest quality assurance standards for gas flow measurement uncertainty, including industry-leading ISO 17025, ANSI Z-540 and NIST 150 laboratory accreditation by the National Voluntary Laboratory Accreditation Program (NVLAP) administered by the National Institute of Standards and Technology (NIST).

Definer 220 Specifications

Approximate Time per Reading:	1-15 seconds
Gas Compatibility:	Use with non-corrosive, non-condensing, non-combustible gases, less than 70% humidity
Flow Modes:	Pressure or Suction
Measurement Cell Style:	Integrated
Temperature and Pressure Sensors:	In the flow stream Press.: 3.5 mmHg (typical), 7.0 mm (max); Temp.: 0.8° C (typical), 1.3° C (max)
Reading Styles:	Single (manual), Continuous or Burst, with averaging function user-selectable from 1 to 100 measurements
AC Adapter/Charger:	12V DC, >250ma, 2.5 mm, center positive
Battery System:	6V rechargeable, sealed lead-acid, 6-8 hrs typical operation
Battery Operational Time (5 cycles/min):	3 hrs backlight on, 8 hrs backlight off
Pressure and Suction Fittings:	1/4" ID Swagelok® compression fittings, 3/8" fittings on High Model
Warranty:	1 year; battery 6 months
Storage Temperature:	0-70° C
Ambient Humidity:	0-70%, non-condensing
Operating Pressure (Absolute):	15 PSI
Display:	Backlit graphical LCD
Data Port (for use with Optimizer software):	Serial (RS-232)
Data Cable (for use with Optimizer software):	1 meter (Definer Data Port to PC serial port)
Protective Case:	Soft side or Pelican case available

RoHS- and CE-compliant

Backed by ISO 17025 and Proven DryCal® Technology, the Definer 220 helps assure compliance with environmental regulations and improves your process control.

Mesa's Butler, N.J. manufacturing facility (pictured above) is the only NVLAP accredited ISO 17025 laboratory serving the occupational health and safety industry. With the lowest gas flow measurement uncertainties of any commercial laboratory, Mesa provides you with the legal protections and peace of mind valued in today's litigious business environment.

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