

## Gas Delivery Flow Measurement



Bubble Flowmeters

Use these bubble flowmeters to check splitter or detector flow, or to calibrate personal pumps for accurate air sampling. Bubble meters are graduated in these increments: 10mL by 1mL; 25mL by 5mL; 50mL by 10mL; 100mL by 20mL; 500mL by 50mL; and the 1000mL by 100mL. The 500mL and 1000mL meters can be used to measure positive or negative flow.

Bubble meter kits include a squeeze bulb, 30" (3/4m) of 5/16" Tygon tubing, a collapsible stand, and a bottle of liquid soap solution.

DESCRIPTION	CAT. NO.	PRICE
<b>BUBBLE METER KITS</b>		
500mL Bubble Meter Kit	20414	
1000mL Bubble Meter Kit	20415	
<b>BUBBLE METERS AND ACCESSORIES</b>		
10mL Bubble Meter <sup>1</sup>	20562	
25mL Bubble Meter <sup>1</sup>	20431	
50mL Bubble Meter <sup>1</sup>	20432	
100mL Bubble Meter <sup>1</sup>	20433-U	
Replacement Magnetic Clamps for 10mL, 25mL, 50mL units (pk. of 6)	20595	
Replacement Squeeze Bulbs (pk. of 10)	23166	
500mL Bubble Meter	20427-U	
1000mL Bubble Meter	20428-U	
Snoop, 8 oz/475mL bottle	20434	

<sup>1</sup> Includes 2 magnetic clamps.

### Capillary Column Bubble Meter

Accurately measure capillary column gas flow rate. This 0.5mL volume bubble meter will allow you to calculate true split ratio by measuring actual flow rate – even as small as 0.01mL/min. Graduated in 0.01mL increments.

Choice of easy installation setups: magnetic clamps or stand.

DESCRIPTION	CAT. NO.	PRICE
with stand	23771	
with magnetic clamps	23762-U	

### Humonics Veri-Flow 500 Electronic Flowmeter



- Calibrated for nitrogen, helium, hydrogen, air, 5% argon/methane (certificate supplied)
- Range of 5-500mL/min; accurate to within  $\pm 2\%$  of reading or 0.25mL (whichever value is larger)
- Continuous readings in volume, linear velocity, or split ratio
- EPC compatible
- 9-pin RS 232 communication port for recording data
- Includes power adapter jack and recharger
- Only 4 x 5 x 3" (10 x 12.5 x 7.5cm)

The leaders in GC flow measurement technology have developed an outstanding instrument for analysts who want a simple, continuous-reading flowmeter for general GC applications.

The Veri-Flow 500 Electronic Flowmeter is multiple-point calibrated to NIST-certified volumetric standards for nitrogen, helium, hydrogen, air, and 5% argon/methane, for superior accuracy and to help you comply with ISO 9000, GLP, and other stringent quality control protocols. The display indicates flow in volume (mL/minute) or linear velocity (cm/second), or split ratio. Operation is pulse-free, unaffected by temperature or pressure changes, and the unit is fully compatible with electronic pressure control systems. Operates on internal rechargeable batteries. Very low power consumption and automatic shut-off.

DESCRIPTION	CAT. NO.	PRICE
110VAC <sup>1</sup>	23143	
110-220VAC, 50/60Hz <sup>2</sup>	23142	

<sup>1</sup> CE approved

<sup>2</sup> Includes 110VAC USA, 220VAC European power cords and a universal charger



### Digital Timers

**LCD Digital Stopwatch** Performs many functions: time of day, 1/100 second timing, split (lap) times, day, date and month, time in/time out, two finishing times, night light, 0.003% accuracy. Includes battery.

**Digital Timer/Clock** Countdown timer and stopwatch functions – counts up or down from one second to 24 hours. Alarm sounds for 60 seconds and shuts off automatically. Unit clips onto your pocket. Includes a 1.5V battery.

DESCRIPTION	CAT. NO.	PRICE
LCD Digital Stopwatch	23011	
Digital Timer/Clock	22754-U	