

Model 1000 Digital Liquid Flowmeter

Product Specification



996-0037

Excellent for ISO 9000 and Good Laboratory Practice protocols

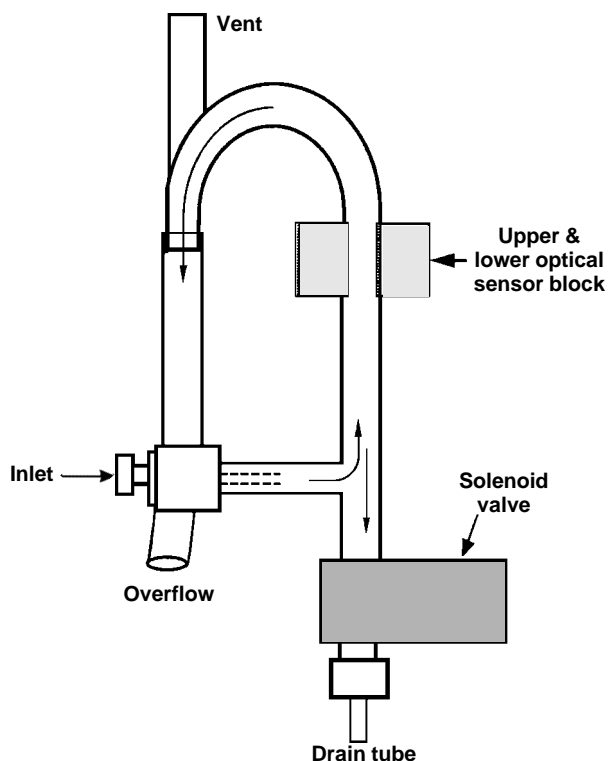
- Flow range 0.100 to 30.0mL/min
- NIST traceable
- Accurate to $\pm 1\%$ of any reading

Model 1000 Digital Liquid Flowmeter is based on a true volumetric principle. This instrument, with its advanced digital electronics and infrared optics, replaces the tedious and time-consuming glass burette and stopwatch traditionally used in the laboratory to obtain accurate flow rate measurements. Model 1000 liquid flowmeter uses a tube of precision bore glass, a microcomputer, and infrared optics to track a rising column of liquid.

A closed valve causes the liquid from the HPLC detector to rise past lower and upper optical sensors (Figure A). These sensors measure the volume-over-time flow through a precision-bore glass tube (the same principle employed in gas models). The result appears immediately on the instrument's display. You can have the result sent to a computer for archiving. At the end of the timing sequence, the valve opens to drain the tube and closes to begin a new cycle. Wetted surfaces are Teflon[®], glass, and stainless steel.

The absolute accuracy of Model 1000 liquid flowmeter is established by comparing the performance of the instrument to a NIST-registered burette. The performance correlation is then placed into the instrument's permanent computer memory.

Figure A. Operation Principle of Model 1000 Liquid Flowmeter



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Measurements are taken automatically over varying intervals, depending on the flow rate of the HPLC system. The sample volume being measured is 70 μ L. Accuracy is within $\pm 1\%$ of any reading; repeatability is 0.5%. Model 1000 liquid flowmeter requires either a 110 or a 220 VAC power source.

Ordering Information:

Description	Cat. No.
Humonics Model 1000 Digital Liquid Flowmeter	
110V	55090-U
220V	55093

Trademarks

Microsoft — Microsoft Corporation
Teflon — E.I. du Pont de Nemours & Co., Inc.

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