

GJC Instruments Ltd

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HPLC Liquid Flowmeter. Model : 5025000 - Revision 5

GJC Instruments Ltd is pleased to introduce a HPLC liquid flowmeter offering improved performance and a dramatic reduction in size and weight – one third the size and weight of the previous models!

G J C Instruments Ltd liquid flowmeters accurately and reliably determine liquid flow. They are designed for use primarily on HPLC systems at the end of a flow system where measured liquid is collected or dispensed to a drain.

Revision 4 units include the following improvements:-

- PEEK bodied valve fitted with soft elastomer seal and Teflon diaphragm.
- More stable Sensor head design.
- User replaceable inlet pipe - now 1/16 inch diameter PEEK tube.
- Light weight brushed finish all aluminum case – weight only 320gm.

The instrument measures over a range of 50µl /min to 25ml/min, the range and accuracies are given in the table below.

Flow rates are measured volumetrically and are independent of the liquid type up to a viscosity of 10 centipoise. The unit uses a single chip micro-controller, the flow-rate (rounded to four digits) is displayed on a large four digit back-lit Liquid Crystal display (LCD) and data is output via the built-in RS232 interface to the full 6-digit reading. No user calibration is required; the unit is normally supplied gravimetrically calibrated at 1.0 (+-10%) ml/min. Calibration at multiple points is available. All wetted parts are made of PTFE , PEEK , DAI-EL PERFLOR or Pyrex glass – no wetted metallic parts.

Three modes of operation are possible:-

- Printer Mode:- readings are displayed on the LCD and output to the printer if one is connected. 'Box - Car' or running average option is available in this mode
- Terminal Mode :- in this mode the flowmeter is controlled by the terminal or PC. Extra commands for averaging any number of readings are included.
- Test Mode:- this mode allows the user to test the display, valve and RS232 interface and also display the calibration date.

The RS232 output allows the flowmeter to output data to any device fitted with an RS232 serial interface e.g. printer, terminal or personal computer. The unit is supplied with an RS232 cable fitted with a nine way female plug to connect directly to the COM port of a PC. By using the Terminal or Hyper-Terminal program supplied with MS Windows results can be collected and displayed or pasted into Excel or other programs to produce graphs or statistical analysis. The baud rate is internally switch selectable for 19200,9600,4800,2400,1200,600,300 baud with the option of sending a CR/LF after each reading. X-on / X-off handshaking is used.

All instruments are supplied with the following: - -

- Mains 'wall block' power supply with a choice of 240v 3 pin UK, 230v 2 pin European or 100v 2 pin USA/Japan.
- RS232 input/output cable: - 8way mini-din plug to PC COM port 9 pin female.
- UKAS traceable single point calibration certificate is supplied as standard (UKAS is the UK equivalent of NIST)
- Universal mounting kit: - allows free standing mount, wall mounting, 'stack system' mounting and bottle top mount.
- Black plastic carrying case with foam inserts. All parts of the mounting kit are packed within the carrying case.
- Cleaning kit now supplied with the flow meter.

Specifications

Range -	0.05 - 25 ml/min	Accuracy -	+ -1%	Reproducibility -	+ -0.5%
Reading update time (+-10%)	15sec @ 2 ml/min, 25sec @ 1 ml/min, 45 sec @ 0.5 ml/min				
Measuring volume -	140µl	Priming volume: -	250 µl		
LCD Display (12.7mm)-	4 digits + 3 status symbols	RS232 o/p -	(6 digits) XX.XXXX ml/min		
Max Resolution -	Display -	1 µl	RS232 o/p -	0.1 µl	
Size -	138mm High x 76mm Wide x 45mm Deep.		Weight 320g		

Ordering Information

Product	Model	Range	Power supply	Part No
HPLC Liquid Flowmeter	5025000	0.05 - 25 ml/min	universal power supply	2000UK / US / EU

