V:kit

Take Control

IQ/OQ/PQ Kits, Tools and Software
for Analytical Instrument Qualification

**VKIT-LFM2
HPLC / UPLC flowmeter**

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Specially designed for HPLC and UPLC, the V:Kit liquid flowmeter enables easy and accurate measurement of flow rates. The tripod mount and robust carry case make VKIT-LFM2, the perfect tool for field service engineers and laboratory personnel performing OQ/PQ and routine performance verification activities.

The V:Kit HPLC liquid flowmeter displays the current flow rate in mL/min to four decimal places. A USB port is provided for connection to a PC or serial printer, enabling compliance with the data integrity demands required in GxP environments.

Using the HPLC liquid flowmeter with the optional AutoFlow software or printer enables unattended operation: particularly useful when measuring the low flow rates associated with LCMS.

The flowmeter makes possible simpler diagnosis of common HPLC pump problems such as poorly functioning check valves or leaking pump seals.

LFM2 improves on the classic, well-proven VKIT-LFM design by adding faster response time, greater accuracy at low flow rates, a more compact design and improved connectivity via USB.

Technical specifications

- **0.05 to 25.00 mL/min flow range**
- **Flow accuracy ≤ 1.0 %**
- **Flow precision ≤ 0.1 %**
- **0.1 µL/min resolution**
- **Multi-point calibration with UKAS (UK equivalent of NIST) traceability calibration certificate**
- **PTFE, PEEK, FEP, EPDM & Acetal wetted parts**
- **195 µL sensor volume: 5 readings each minute at 1.00 mL/min.**
- **24V DC UK (3pin UK 240V), EU (2-pin 220V) or USA (2-pin 120V) (state when ordering)**
- **Backlit LCD display**
- **Weight: 1.8 kg**
- **Dimensions: 132 mm x 89 mm x 64 mm (HxWxD)**
- **Integrated tripod stand allows easy positioning on the bench**
- **Supplied with sturdy carrying case**

Integrated tripod stand

Carry case

About V:Kit

V:Kit specialise in delivering solutions for Analytical Instrument Qualification. With a comprehensive range of measuring tools, software, protocols, standard operating procedures and certified standards, V:Kit products are used by OEMs, service providers and pharmaceutical laboratories worldwide.

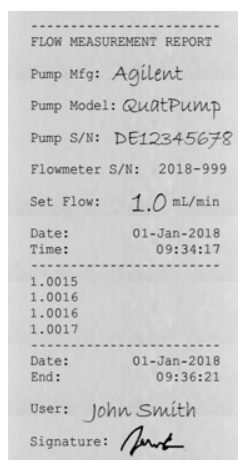**Take control of your qualification needs with V:Kit.**

GLP / Data Integrity Options

To assist with GLP and the increasing demands for data integrity by regulatory agencies such as FDA, EMA and PMDA, the liquid flowmeter can be optionally specified with software or a dedicated printer.

VKIT-PRT Printer

The flowmeter may also be specified with a printer option, to provide simple, effective traceability.

VKIT-PRT This is connected via the USB port and provides a time and date stamp of each flow reading. No PC software is required, and the printer is encoded with the flowmeter serial number.

FLOW MEASUREMENT REPORT

```
Pump Mfg:    Agilent
Pump Model:  QuatPump
Pump S/N:    DE12345678
Flowmeter S/N:  2018-999
Set Flow:    1.0 mL/min
Date:        01-Jan-2018
Time:            09:34:17
---------------------------
1.0015
1.0016
1.0016
1.0017
---------------------------
Date:        01-Jan-2018
End:             09:36:21
User:        John Smith
Signature:
```

AutoFlow

AutoFlow is an optional software module. It is available as standalone (flowrate only) or as part of the V:Kit 5 Analytical Instrument Qualification package.

Flow data can be read directly from the flowmeter into V:Kit AutoFlow software to produce an audit-friendly and traceable calibration report which evaluates the flow accuracy and precision of your HPLC and UPLC equipment.

Typical Flowrate Report

More about V:Kit 5.1 Software – Qualify your laboratory systems with a 21 CFR Part 11 compliant package

- Generate comprehensive qualification documents with full traceability.

- Create, manage, and distribute secure, version controlled executable qualification protocols directly linked to Standard Operating Procedures and Certificates of Analysis.

- Manage your Analytical Equipment database.

- Share qualification results and protocols with your team. User account management with password expiry and security roles.

- Electronic Signatures, Audit Trail, Deviation Reporting.

Available for HPLC/UPLC, GC/GCMS, LCMS and MS/MS, Dissolution and UV-Vis.

Ordering codes

VKIT-LFM2	V:Kit HPLC/UPLC flowmeter, with calibration certificate. (Specify your required number of calibration setpoints, 1,2,3,4 or 5. Power supply requirements UK, EU, US or other)
V5-2002	V:Kit HPLC AutoFlow Software Starter Bundle
V5-PRT	Printer for VKIT-LFM/LFM2 HPLC flowmeter

Ordering information

Order online at www.v-kit.com.
We accept payment with VISA, MasterCard and Bank Transfer in EUR, USD and GBP currencies.

Or send your Purchase Order to sales@v-kit.com.