



The BioLogic DuoFlow[™]
Chromatography System

BIO-RAD

BioLogic

DuoFlow System

Easy Upgrades — The unique modular design of a BioLogic DuoFlow system makes it the logical choice when building a chromatography system that can expand as your needs grow. Start with the functions of the BioLogic DuoFlow basic system for your nucleic acid and protein purification protocols. As your applications change and become more complex, higher flow rates for larger columns may be needed. Your samples may also require sophisticated detection, including simultaneous multiple-wavelength monitoring, or buffer blending capabilities for use with ion exchange protocols. All of these functions and many others can be added incrementally to your BioLogic DuoFlow chromatography system. With a BioLogic DuoFlow system, you'll never be stuck with an obsolete system.

Flexible Systems — The versatility of BioLogic DuoFlow components allows you to customize your system to meet your application requirements and laboratory benchspace and budget limitations. Open racks and movable horizontal bars enable efficient placement of valves, columns, and additional components for optimization of separation protocols.

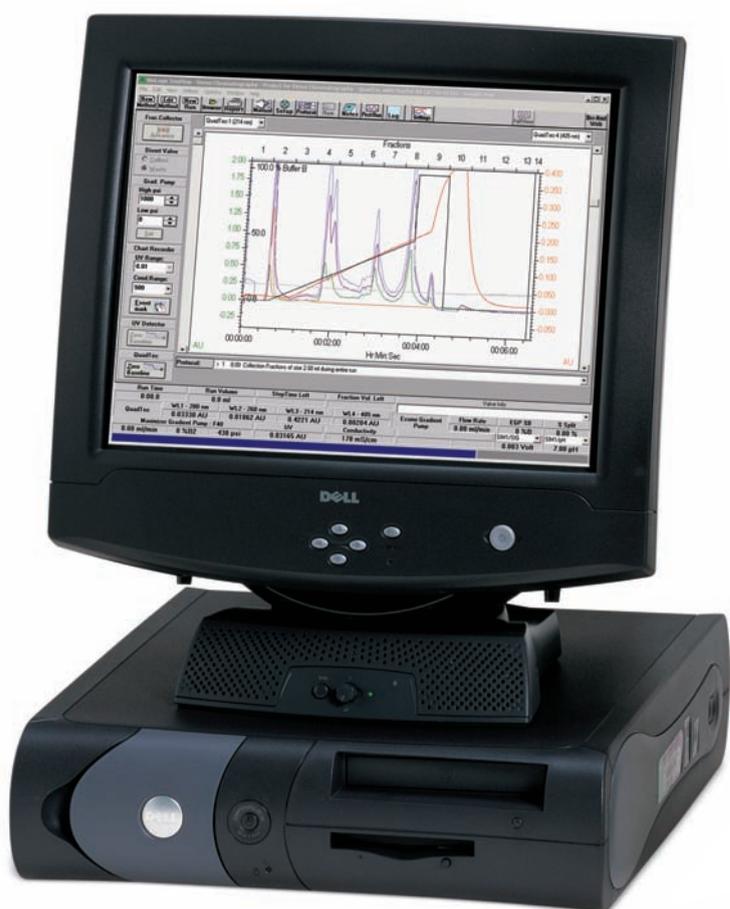
Intuitive Software — With the BioLogic DuoFlow system you can become an expert in just a few runs. Our easy-to-use, intuitive BioLogic DuoFlow software was designed with both novice and experienced chromatographers in mind. So whether your protocols are simple or complex, the icon-based program will lead you easily through the steps to create error-free methods. New protocols can be configured in four easy steps, while repeated methods can be recalled for new runs in just two steps. The program also includes a database Browser feature that provides multiple users the convenience and security of keeping their own projects, methods, and data files in separate folders.

For all your biochromatography experiments, make the logical choice — the BioLogic DuoFlow system.

and upgradable.

The BioLogic DuoFlow system's modular components allow you to add capabilities as your application requirements change and expand.

- 1 F40 Workstation** — F40 pumpheads for 40 ml/min flow rates or 80 ml/min with the addition of a BioLogic Maximizer™ valve system
- 2 F10 and F40 Pump Kits** — an easy pumphead swap changes your workstation flow rate to meet your application developments
- 3 BioLogic Maximizer Valve System** — enables buffer blending capabilities and doubled flow rate, with the added bonus of doubled valve capacity
- 4 BioLogic Maximizer Mixer** — large dynamic mixer ensures accurate gradients at higher flow rates



Upgrade Options

- 5 **BioLogic QuadTec™ UV/Vis Detector** — full-range detection at four wavelengths simultaneously, reducing four separate steps to one
- 6 **SV5-4 Select Valve** — enables increasing the number of running solutions or buffers; also used for sample loading
- 7 **AVR9-8 Switching Valve** — enables more complex applications that require multiple columns and solvents
- 8 **pH Monitor** — an easy add-on that enables in-line pH tracking
- 9 **BioFrac™ Fraction Collector** — sophisticated and flexible, with 14 different racking options that enable collecting microliter to liter sample volumes



Flow Rate and Buffer Blending Upgrades

- The BioLogic Maximizer valve system doubles your workstation flow rate
- Automated buffer blending enables pH scouting experiments



Pump Kits for Rapid Flow Rate Increases

- A fast and simple pumphead change to your BioLogic DuoFlow workstation gives you a 4-fold increase in flow rate
- Switching pumpheads is simplified by fully assembled heads that have check valves and seals installed



Detection Upgrades for Complex Samples

- The BioLogic QuadTec UV/Vis detector captures four wavelengths simultaneously (from 190 to 740 nm), eliminating multiple trips to the spectrophotometer
- A 214 nm filter and zinc lamp detector kit offer the sensitivity needed to detect peptides
- A signal import module (SIM) enables integration of refractive index and fluorescence detectors with your DuoFlow systems



Valve Upgrade Options for Sample Loading and Column Capabilities

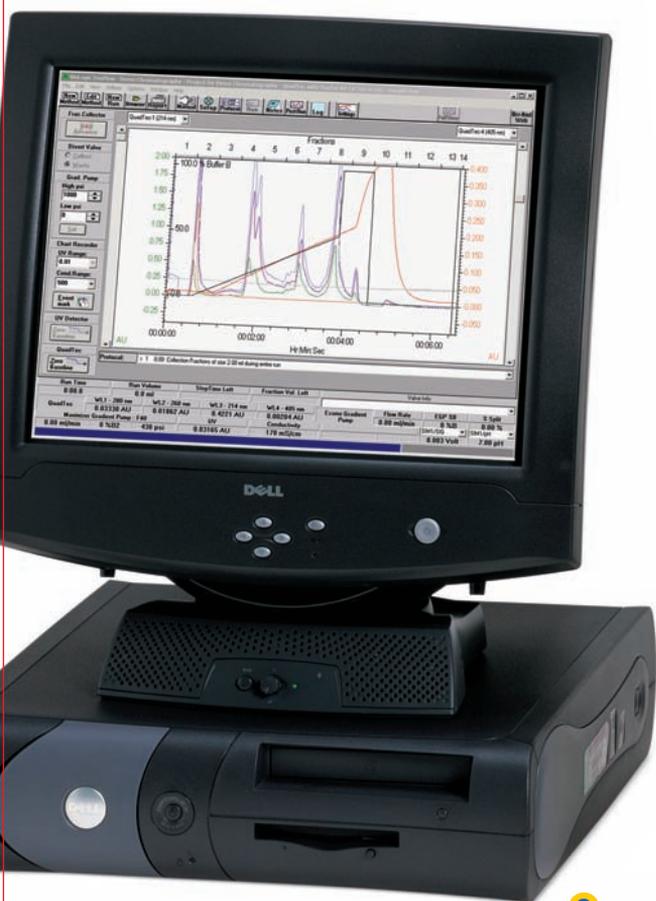
- A large selection of valves enables automation of simple to complex sample loading schemes
- Large and small sample volumes can be loaded once or incrementally
- Multiple columns may be installed for automation of column scouting experiments



It's accessible...

The BioLogic DuoFlow system's flexible setup design and easy-to-use software open a wide range of applications for both new and experienced chromatographers.

- 1 BioLogic DuoFlow F10 Workstation** — houses two individually controlled dual-piston pumps with an upgradable flow rate range of 0.01–10 ml/min
- 2 UV Detector** — for portable detection of samples at 254 nm (for DNA) and 280 nm (for proteins); increase resolution by positioning the detector close to the column outlet
- 3 Conductivity Monitor** — detects salt gradients to determine the salt concentration that elutes a protein
- 4 MX-1 Mixer** — ensures accurate gradient mixing for more accurate separations
- 5 AVR7-3 Sample Inject Valve** — for portable sample injection through loops of 2 μ l to 5 ml; one of the many sampling options available with DuoFlow systems
- 6 UNO[®] Q1 Anion Exchange Column** — for use with the starter kit, which includes reagents, a protein standard, and easy-to-follow tutorial instructions
- 7 Flexible Three-Tiered Rack System** — movable (and removable) horizontal bars and trays let you design a system to fit your laboratory benchspace
- 8 Dell Controller** — with USB Bitbus communicator





**Bio-Rad
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