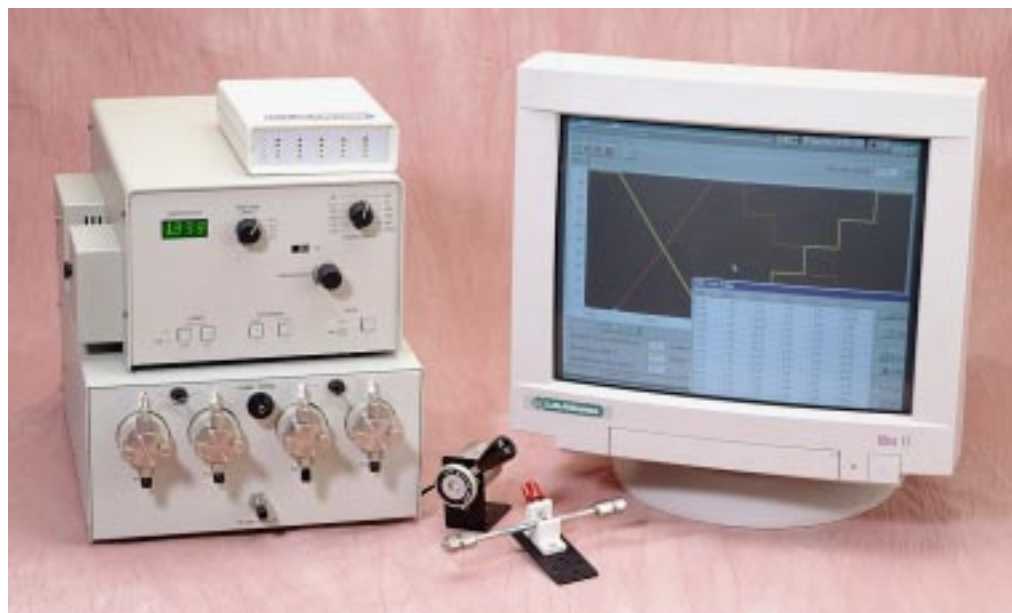


Q-Grad Quaternary High Pressure Gradient System



- Includes Model 500 variable wavelength UV detector
- 190-800nm variable wavelength range with standard Deuterium lamp and optional Tungsten lamp
- Intelligent keypad controller for programming and storing gradient methods
- External synchronization from an injector or autosampler may be enabled using the TTL cable
- Quaternary gradient pump
- Flow rate of 0.001-5.0 mL/min per pump head
- Up to 6000 psi (SS), up to 5000 psi (PEEK)
- Self-flushing pump heads
- Pulse dampener and prime purge valve

Chrom Tech, Inc.

"your chromatography specialists"

P.O. Box 240248, Apple Valley, MN 55124
800/822-5242 in MN 952/431-6000 • 952/431-6345 fax
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Q-Grad Quaternary High Pressure Gradient System

The Q-Grad System provides reproducible high-pressure quaternary gradient capability for HPLC applications. The four high-performance pump heads can be programmed through an independent keypad unit or from optional PC-driven software. The result is high-pressure gradient performance for the price of a low-pressure gradient system.

The Q-Grad system includes an easy-to-use, high sensitivity Model 500 variable UV wavelength detector designed for routine applications. An optional tungsten lamp may be used for applications that require the visible range.

The Q-Grad system includes an intelligent keypad controller for programming and storing gradient methods. This compact unit can also be used to prime individual pump heads and to apply flow rate corrections if necessary. External synchronization from an injector or autosampler may be enabled using the TTL cable that is provided with the accessory kit. Run/Stop inputs and real-time pressure monitoring (with upper and lower pressure limits) are standard features of the Q-Grad software. Optional PC-based gradient control can also be achieved by standard RS-232 communication using a multi-port interface box via a single serial port of a PC using LabAlliance Q-Grad software. The user-friendly software permits editing of the gradient profile using a graphic gradient editor (GGE) in addition to the use of a standard table.

The Q-Grad high-pressure gradient system utilizes a very efficient internal pulse damper mixer to ensure high performance gradients. The internal mixing design of the solvent delivery system eliminates the need for external mixing devices and tubing. A prime-purge valve and electronic pressure transducer are also standard features of Q-Grad.

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Q-Grad Pump Specifications

Flow rates:	0.001 – 5.0 mL/min (each pump head)
Pressure:	SS: 0-6,000 psi; PEEK: 0-5,000 psi
Pulsation:	±1% @ 1 mL/min and 1,000 psi
Pressure accuracy:	±1% of full scale pressure
Flow accuracy:	±2%
Flow precision:	0.2% RSD
Dimensions:	6.5" (H) x 12.0" (W) x 15.5" (D) 16.5 x 79 x 39.5cm
Weight:	42lbs. (19kg)
Inputs:	Run/Stop inputs (5 volt TTL type);
Outputs:	RS-232 serial comm. port for complete control and status monitoring (each pump) Real time pressure reading

Model 500 Detector Specifications

Range:	UV, 190-360nm (deuterium lamp) Visible, 360-800nm (opt. tungsten lamp)
Monochromator:	Holographic grating
Bandwidth:	6nm
λ accuracy:	±1nm
λ reproducibility:	±0.1nm
Noise:	±1 x 10 ⁻⁵ AU, typical
Drift:	2 x 10 ⁻⁴ AU/hr.
Absorbance range:	0.0005 to 2.0 AUFS (12 range settings)
Integrator outputs:	1 V/AU
Recorder outputs:	10mV, 100mV, 1V (full scale)
Rise times:	0.025, 0.1, 0.3, 1.0, or 3.0 seconds
Dimensions:	9.75" (W) x 6.25" (H) x 13.25" (L)
Weight:	20lbs. (9.1kg)
Power:	100, 110, 220/240 Vac; 50/60Hz; 125 W

Q-Grad Ordering Information

Cat.No.	Description
QG4000	Q-Grad, quaternary gradient pump
QG4000S	Q-Grad, quaternary gradient system, software controlled, stainless steel Includes: Quaternary gradient pump; control keypad; Model 500 detector; manual injector with 20µL loop; system accessories kit; and C18 column
Options:	
9551-0111	Optional Tungsten lamp for Model 500 with mounting plate
SC4400	Keypad control unit
PC400	PC-controlled software upgrade for Q-Grad