Pumps

P-1 Pump UHPLC

No compromise on time and resolution up to 1000 bar
SmartMix® mixing chamber for UHPLC
Online degasser
Active pressure and pulsation compensation
Adaption to different solvent (Compressibility)
Radio-frequency-identification (RFID) for automatic pump head detection (GLP)
UHPLC check valves
Variable pump heads
LPG can be retrofitted at a later time

HPG: P-1/P-1 System

P-1 Pump HPLC plus

Flexibility and performance for routine HPLC up to 750 bar
SmartMix® mixing chamber for HPLC
Online degasser
Active pressure and pulsation compensation
RFID for automatic pump head detection (GLP)
Spring supported check valves
Variable pump heads
LPG can be retrofitted at a later time
UHPLC upgrade kit available

LPG: P-1/M-1 System

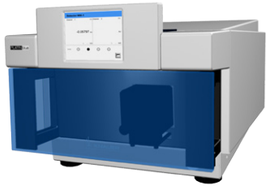
Detectors

PDA-1 Detector

100 full spectra/sec (190 - 1000 nm)
Total reflection flow cells (10 or 50 mm path way)
High brightness long life lamps
Dual lamp configuration
Internal holmium filter for automatic validation
GLP documentation
Leak sensor

MW-1 Detector

Fastest detector on the market, 200 Hz (one channel)
Variable flow cells
High brightness long life lamps
Dual lamp configuration
Internal holmium filter for automatic validation and calibration
GLP documentation



Fluorescence Detector

Most sensitive fluorescence detector on the market
Flow cell temperature control
Variable flow cells
GLP documentation
Automatic wavelength validation

Mass Detector

Compact LC/MS for high throughput applications
Very robust and easy to operate
Two different ion sources:

- electrospray (ESI) and atmospheric pressure chemical ionization (APCI).
- up to 1000 times more sensitive than UV

Highly sensitive ion optics
60° M-Path™ for ruggedness and lowest carryover
Self-cleaning with Cone Wash™

Injectors

AS-1 Autosampler

Fast UHPLC injector
Vials and MTP/DWP possible
Special inject mode for UHPLC
Very good sample protection (cooling, no light contamination)
Mix and dilute option
Different injection modes

Column Thermostat

T-1 Column Thermostat

Variable switching valves configurations
GLP documentation
RFID for automatic column detection (up to 6 columns)
Leak sensor
Active post column cooling
Cartridges for eluent pre-heating
Magnetic column holders

Columns

BlueOrchid UHPLC Columns

Exceptional stability in acidic and alkaline elements
Sub-2 µm particles

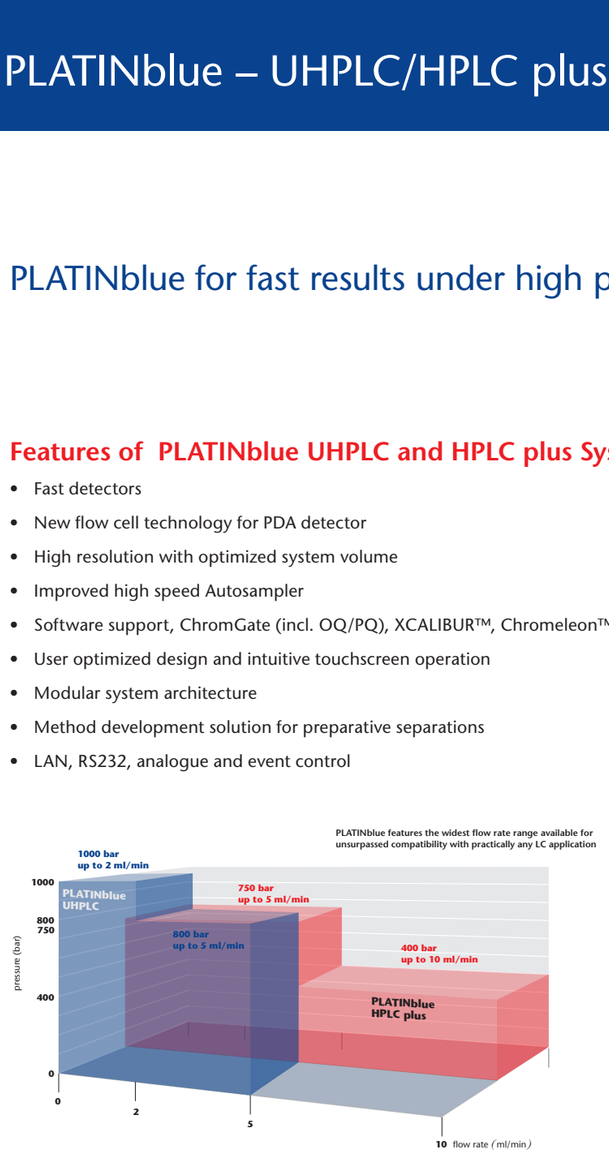
PLATINblue – UHPLC/HPLC plus Systems

KNAUER

PLATINblue for fast results under high pressure with high resolution

Features of PLATINblue UHPLC and HPLC plus Systems

- Fast detectors
- New flow cell technology for PDA detector
- High resolution with optimized system volume
- Improved high speed Autosampler
- Software support, ChromGate (incl. OQ/PQ), XCALIBUR™, Chromeleon™
- User optimized design and intuitive touchscreen operation
- Modular system architecture
- Method development solution for preparative separations
- LAN, RS232, analogue and event control



How to make a decision?

UHPLC

- No compromise on time and resolution
- Highest sensitivity and best signal to noise (S/N) ratio

HPLC plus

- Fast and sensitive detection
- High flexibility and performance for routine HPLC up to 750 bar

Overview

V6979A

Specifications PLATINblue

Specifications

P-1 Pump UHPLC (A60013/14)

Flow rate:	0.01 - 5 ml/min
Max. pressure:	1000 bar (15,000 psi) up to 2 ml/min, 800 bar (11,600 psi) up to 5.0 ml/min
Accuracy:	± 1 %
Precision:	< 0.1 %

P-1 Pump HPLC plus (A60015/16)

Flow rate:	0.01 - 10 ml/min
Max. pressure:	750 bar (10,875 psi) up to 5 ml/min, 400 bar (5,800 psi) up to 10.0 ml/min
Accuracy:	± 1 %
Precision:	< 0.1 %

M-1 Manager (A60513)

Degasser:	4-channel, Teflon AF membrane
LPG:	4-channel
A/D D/A Interface:	4 analog inputs, 4 analog outputs, numerous digital inputs and outputs

PDA-1 Detector (A62031)

Lamps:	High-brightness D_2, Tungsten-Halogen
Wavelength range:	190 - 1000 nm
Wavelength accuracy:	< 1 nm
Max. data rate:	100 Hz
Diodes:	1024
Pixel pitch:	< 1 nm
Channels:	max. 6
Noise:	± 5 µAU
Drift:	< 300 µAU/h
Linearity:	> 2 AU
Spectral bandwidth:	< 2.5 nm

MW-1 Detector (A61031)

Lamps:	High-brightness D_2, Tungsten-Halogen
Wavelength range:	190 - 900 nm
Wavelength accuracy:	< 1 nm
Max. data rate:	200 Hz
Channels:	max. 6
Noise:	± 5 µAU
Drift:	< 50 µAU/h
Linearity:	> 3 AU

Fluorescence Detector (A59201)

Lamps:	Xenon lamp, Mercury lamp (WL check)
Wavelength range:	200 - 750 nm
Wavelength accuracy:	± 2 nm
Wavelength precision:	± 0.2 nm
Max. data rate:	100 Hz
Spectral bandwidth:	20 nm
S/N:	2000 H_2O Raman Peak
Channels:	max. 2 (0.5 Hz)
Cell:	12 µl (2 MPa)

Mass Detector (A66500)

Ionization modes:	Electrospray (ESI) or atmospheric pressure chemical ionization (APCI)
Mass range:	17 - 2000 Da
Flow rate:	up to 2 ml/min
Scan speed:	up to 12000 amu/s for full compatibility with narrow UHPLC peaks
Sensitivity*	
ESI, positive ion:	1000 : 1 RMS, 50 pg erythromycin
ESI, negative ion:	500 : 1 RMS, 20 pg p-nitrophenol
APCI, positive ion:	200 : 1 RMS, 50 pg erythromycin
APCI, negative ion:	50 : 1 RMS, 20 pg p-nitrophenol
XCALIBUR™ 2.0.7 SP1:	Full instrument control and data processing or the PLATINblue and Mass Detector

*S/N, loop injection, 1 ml/min flow rate

AS-1 Autosampler (A63500)

UHPLC-Injection:	up to 1000 bar (15,000 psi)
Sample capacity:	max. 768 sample positions with well plates or 96 standard autosampler vials
Injection cycle:	15 s < 60 s with wash
Injection:	Full loop, partial loop and microliter 'pickup'
Precision:	RSD < 0.3 % full loop Injection
Carry over:	< 0.05 % with needle wash
Sample tray cooling:	4 - 22 °C

Manual injection valve (A64601)

UHPLC-Injection:	up to 1000 bar (15,000 psi)

T-1 Basic Column Thermostat (A63400)

Temperature range:	5 - 85 °C

T-1 Column Thermostat (A63410)

Temperature range:	5 - 80 °C
Post column cooling:	15 - 35 °C
Switching valves:	max. 2 (Types: 6, 8 and 10 Port Multi position or 6 and 10-Port-2 Position)
Column compartment:	370 x 85 mm (length x width)

PLATINblue assistant (A6700V001)

Valves:	2 x 7-Port-Multi position, 1/8"

PLATINblue automatic switching valve (A64610)

Valve:	6-Port-2 position, 1/32", 0.15 mm, 1000 bar (15,000 psi)
Special feature:	ChromGate driver

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