



PLC 2020

Personal Purification System



PREPARATIVE CHROMATOGRAPHY SOLUTIONS
FLASH – NORMAL PHASE – REVERSE PHASE



 **GILSON®**

Purification Solutions from the Purification Leader

LC in a Box

Performs various techniques:

- FLASH
- Normal Phase
- Reverse Phase

Superior resolution to FLASH

Save time—no need to purify the sample multiple times to achieve required purities



now available
NEW
now available



PLC 2020 Purification System

It's Your Chemistry ... *Make it Personal!*

A fully-functioning purification system in a small, compact footprint, the PLC 2020 Personal Purification System was developed in response to the growing need for an easy-to-use, self-contained system to handle a chemist's purification needs on a more personal level. The PLC 2020 Personal Purification System is ideally suited for low-throughput, high pressure purification needs and is intended to support an individual or a small group of chemists.

Running the System is as Simple as ...

1 Tap Run on the main menu



2 Select Method & tap Run



3 Load & inject sample



○ Intuitive, easy-to-use software interface allows you to be purifying compounds in minutes



○ Real-time, graphical gradient modifications and real-time sample tracking during run

○ Monitor the progress of the system without being next to it as run lights illuminate the racks during a run, turn off when a run is complete and flash if an error has occurred

○ Easily download/upload methods and results via USB drive

○ Conditional logic fraction collection based on up to two detector channels using any combination of Slope and/or Level

○ Optimize your flow rate range with interchangeable pump heads

○ Auto-Print and Auto-Export of sample reports at the end of a run

GILSON

A robust system true to its name to last through the years



Specifications

PLC 2020 Personal Purification System

Detector

Microprocessor-controlled absorbance detector providing dual wavelength detection

- Dual, variable wavelengths
- Range: 190–700 nm
- Spectral bandwidth: 9 nm
- Setting accuracy: ± 2 nm
- Setting precision: ± 0.2 nm

Flow Cell

- Preparative 0.2 mm pathlength, 0.7 μ L
- Preparative 0.05 mm pathlength, 0.16 μ L
- High pressure preparative 0.5 mm pathlength, 2.0 μ L

Pumping System

- **25SC Pump Head**
 - Flow: 1–25 mL/min*
 - Pressure: 4060 psi (280 bar)
- **50SC Pump Head**
 - Flow: 1–50 mL/min*
 - Pressure: 2030 psi (140 bar)
- **100SC Pump Head**
 - Flow: 1–100 mL/min*
 - Pressure: 1015 psi (70 bar)

Flow Rate Accuracy:

$\pm 1\%$ of requested composition

Minimum Flow Rate Adjustment:

0.01% of pump head size

Mixing Volume: 2.87 mL

Composition Accuracy: $\pm 2\%$

Gradient Linearity: 1–99% using Pump B

Solvent Selection

- Up to 4 solvents selectable on Pump B
- 20 μ m inlet solvent filter

Injection

Electronically-actuated manual injection valve (0.030" bore)

Loop Sizes

20 μ L–5 mL (or larger)

Injection Syringe

1 mL or 10 mL syringe
(20 gauge disposable or reusable needles)

Fraction Collection Valve

Valve Volumes: 126.5 μ L internal volume;
<5 μ L dead volume from common port to normally closed port

Flow Rate: 200 mL/min

Valve Switching Speed: <20 msec

Liquid Contact Material: PTFE and 316 Stainless Steel

Fraction Capacity (3 Racks)

- 13 x 100 mm (240) test tubes
- 15 x 45 mm (144) test tubes
- 16 x 100 mm (132) test tubes
- 16 x 150 mm (132) test tubes
- 18 x 150 mm (132) test tubes
- 20 and 40 mL (42) Scintillation vials
- Custom racks available

System Controller

- Chemical resistant 10" WSVGA TFT Touch Panel PC
- 5-wire resistive touchscreen
- 1.6 GHz Intel Atom processor
- 2 GB of RAM
- 160 GB internal hard drive

Connections

- Contacts: 2 input and 2 output
- 24V Output
- USB ports for keyboard, mouse and/or printer connection
- Ethernet

Dimensions (w x d x h)

42.5 x 57.5 x 75 cm
17 x 23 x 30 in.

Environmental Conditions

Altitude: up to 2000m

Temperature Range: 5°–40°C

Humidity: Maximum relative humidity 80% for temperatures up to 31°C, decreasing linearly to 50% relative humidity at 40°C

* 1 mL/min flow rates are for analytical scout runs and will show delays in gradient response time.



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