

The Alltesta™ Autosampler

SIELC Technologies, Inc.
Wheeling, IL 60090 USA
P. 847-229-2629 F. 847-655-6079
mail@stelc.com www.stelc.com



the
smallest
universal
autosampler

High Pressure HPLC

Configuration:

Valve: 6x2
Syringe: 150 μ L

3) With the sample volume being held in the loop, the needle returns to the injection port.

4) The valve then switches to Position 1, and then syringe pump pushes liquid out of the pump and into the pressurized flow path towards the column.

The valve then switches back to Position 2, returning the entire system to the idle, standby state.

Specifications:

Instrument size: 6 x 6.5 x 7 inch
15 x 16 x 17 cm

Weight: 5 lb
2.3 kg

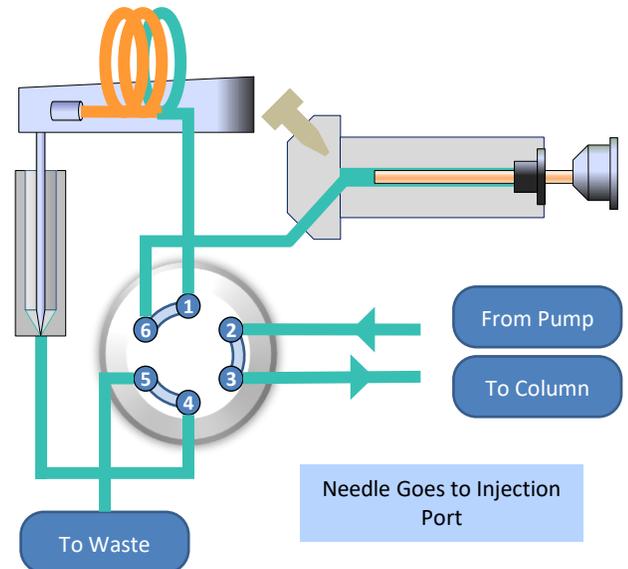
Pressure max: 5,000 psi
344 bar

Communication: USB-B (serial)

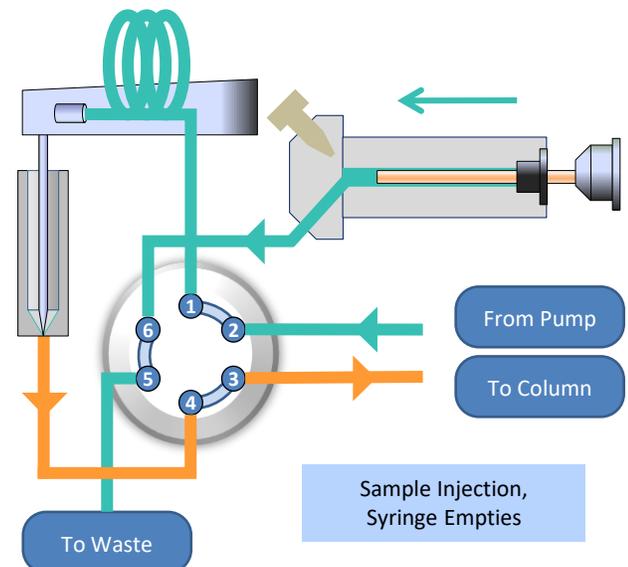
Contact with liquid : SS316, PEEK,
PTFE, Vespel

Schematics

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Fraction Collector

Configuration:

Valve: 6x2
Syringe: 4000 μL

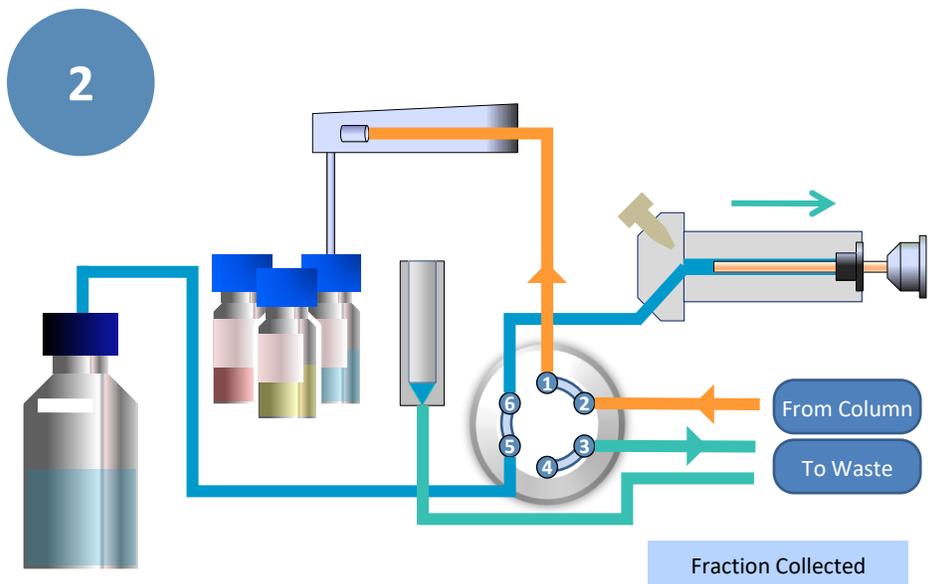
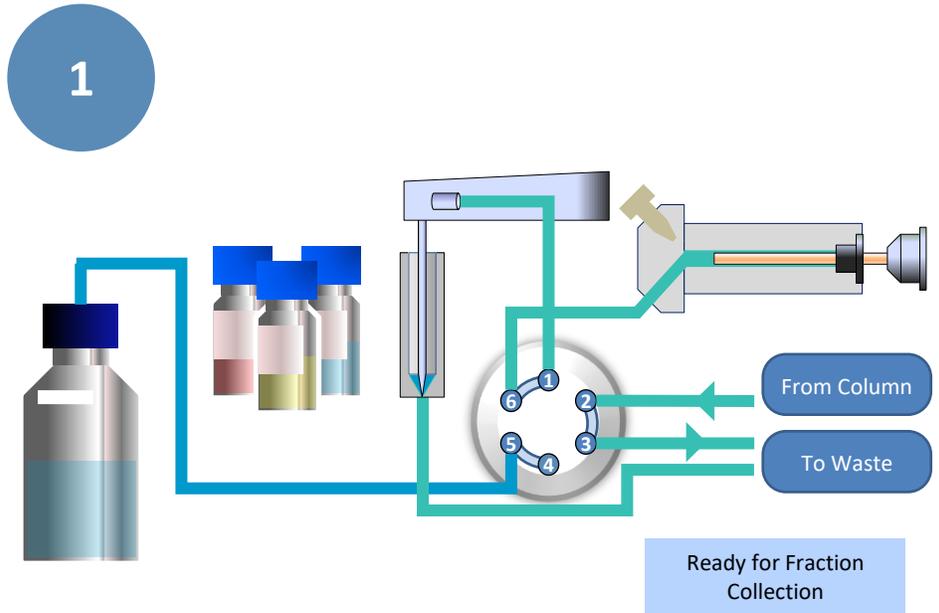
This autosampler application allows users to do fraction collection during column chromatography or any other process which produces liquid flow. Fractions can be determined by a set volume or time. Several tray options are available for different fraction amounts. Additional functions include fraction dilution or mixing with a reagent, needle cleaning, and flow diverting.

The Alltesta™ Analyzer is designed to utilize a 2-valve system in order to alternate between injection and fraction collection. Here, we will only focus on the fraction collection schema.

1) This application begins with the system in its idle state, with the needle in the injection port, the syringe in the 0 position, and the valve in Position 2.

2) When the fraction collection is initiated, the needle descends into the first vial for collection, and the valve first switches to Position 1. The output from the column then passes through the needle and into the vial. Meanwhile, the syringe pump draws in washing solution.

Schematics



Fraction Collector

Configuration:

Valve: 6x2
Syringe: 4000 μL

3) The needle briefly returns to the injection port while the valve switches back to Position 2. Meanwhile, the pump pushes the washing solution through the needle, which passes through the port and towards the waste bottle.

4) The needle then descends into the second vial for collection, and the valve switches back to Position 1. The output from the column again passes through the needle and into the vial. Meanwhile, the syringe pump refills with washing solution.

Steps 3 and 4 will repeat for each subsequent fraction that is collected. At the end of the fraction collection process, the needle will return to its idle state described in Step 1.

Specifications:

Instrument size: 6 x 6.5 x 7 inch
15 x 16 x 17 cm

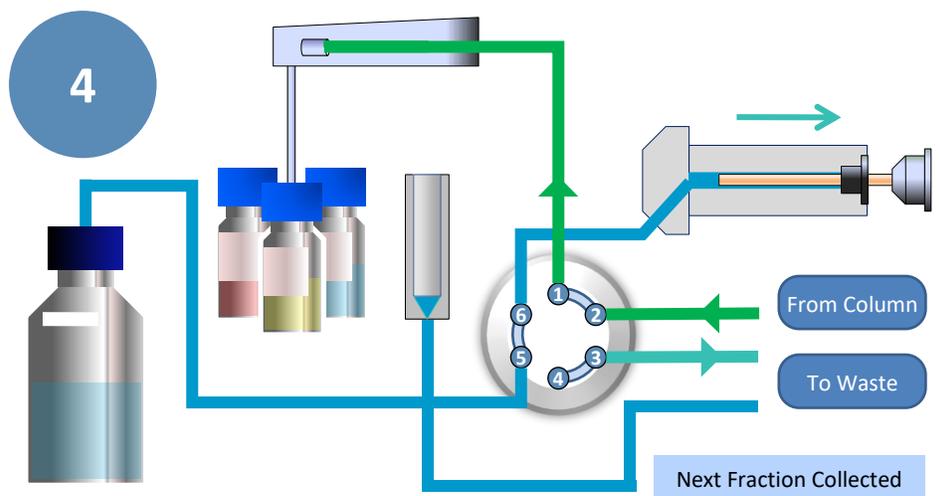
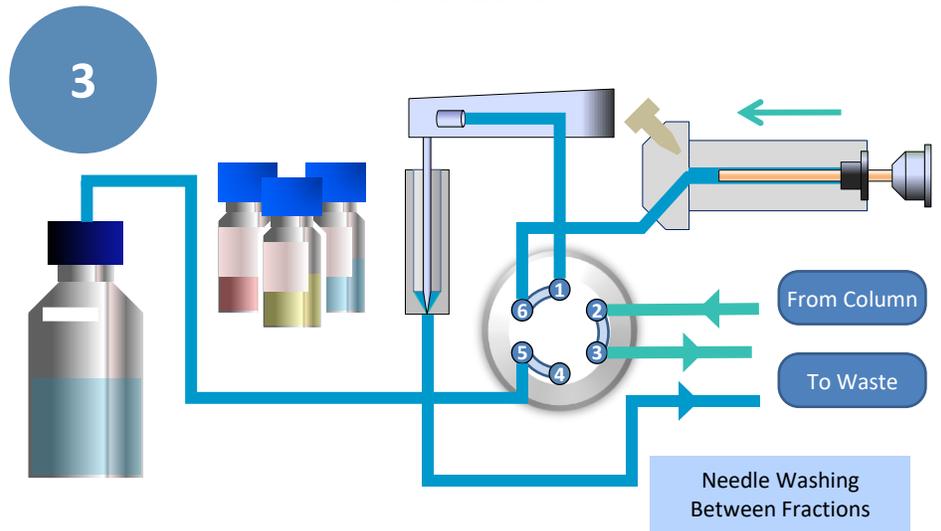
Weight: 5 lb
2.3 kg

Pressure max: 5,000 psi
344 bar

Communication: USB-B (serial)

Contact with liquid : SS316, PEEK,
PTFE, Vespel

Schematics



Small Volume Detector Cell

Configuration:

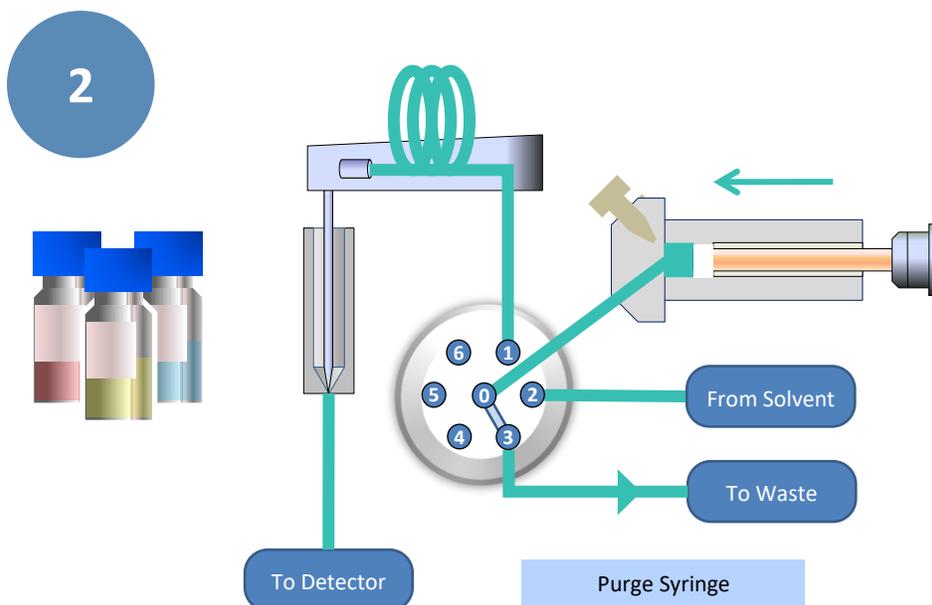
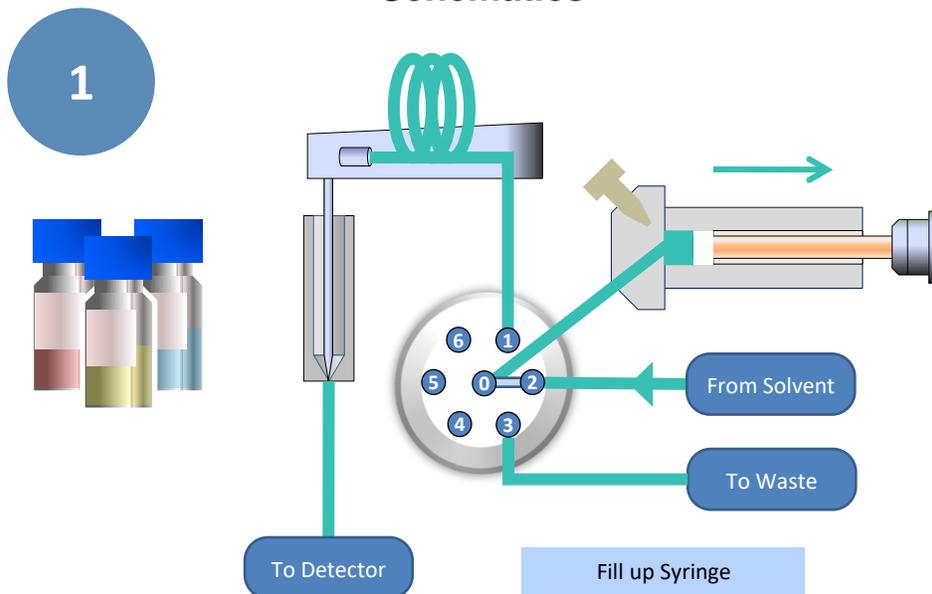
Valve: 7x6
Syringe: 4000 μL

This autosampler application allows users to automate sample storage and delivery to a detector cell such as an optical spectrometer, colorimeter, pH meter, conductivity detector or similar. An accurate sample volume that can be varied by the user can be delivered to a line connected to the detector cell. Additional functions include sample mixing, needle cleaning with up to 4 solutions, and sample shaking. Sample storage capacity is 48 vials with 2 mL volume or a 96-well plate.

1) This application begins with the system in its idle state, with the needle in the injection port, the syringe in the 0 position, and the valve in Position 2. When the injection is initiated, the pump fills up the syringe with solvent.

2) The valve then changes to Position 3 and the pump pushes the solvent out of the syringe to purge and clean it, removing any trace impurities that may be left over from a previous injection.

Schematics



Small Volume Detector Cell

Configuration:

Valve: 7x6
Syringe: 4000 μ L

3) The needle then descends into the chosen sample while the valve switches to Position 1. Once the needle and valve are set, the syringe draws in the set volume of the sample, temporarily holding it in the loop behind the needle.

4) The needle then returns to the injection port. Once the needle settles, the pump pushes the sample through the port and onto the path towards the detector.

The valve then switches back to Position 2, returning the entire system to the idle, standby state.

Specifications:

Instrument size: 6 x 6.5 x 7 inch
15 x 16 x 17 cm

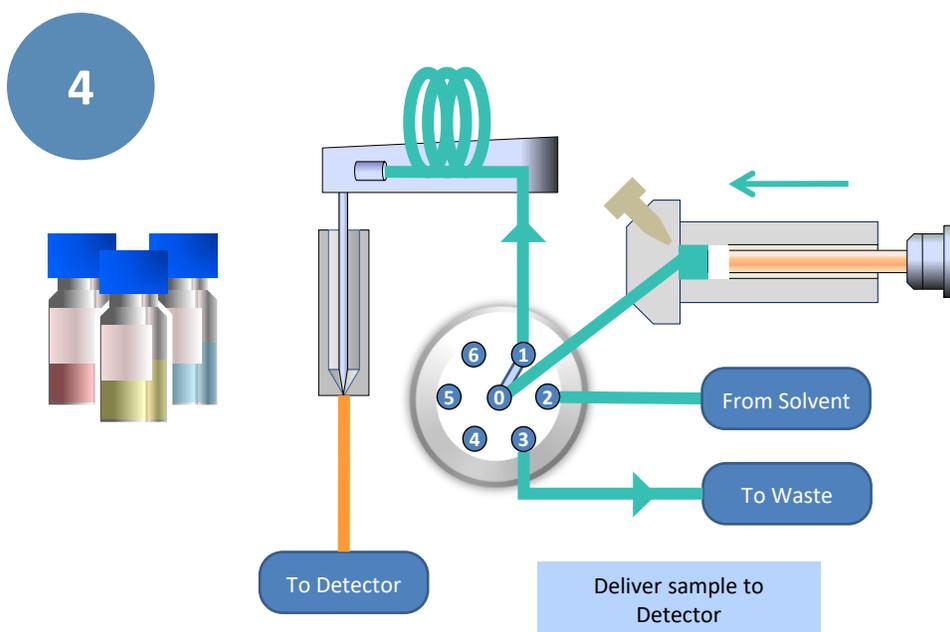
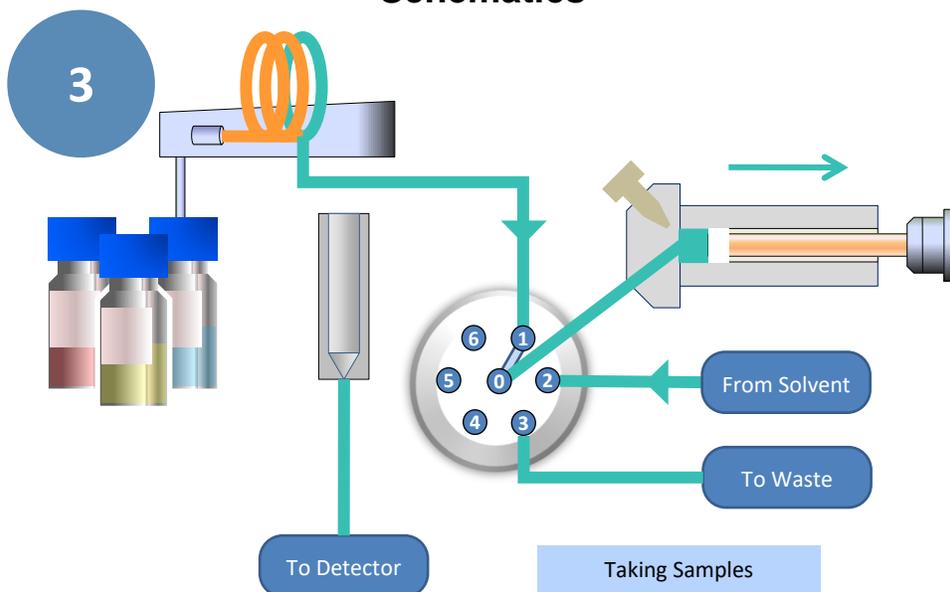
Weight: 5 lb
2.3 kg

Pressure max: 5,000 psi
344 bar

Communication: USB-B (serial)

Contact with liquid : SS316, PEEK,
PTFE, Vespel

Schematics



Low Pressure, High Syringe Volume

Configuration:

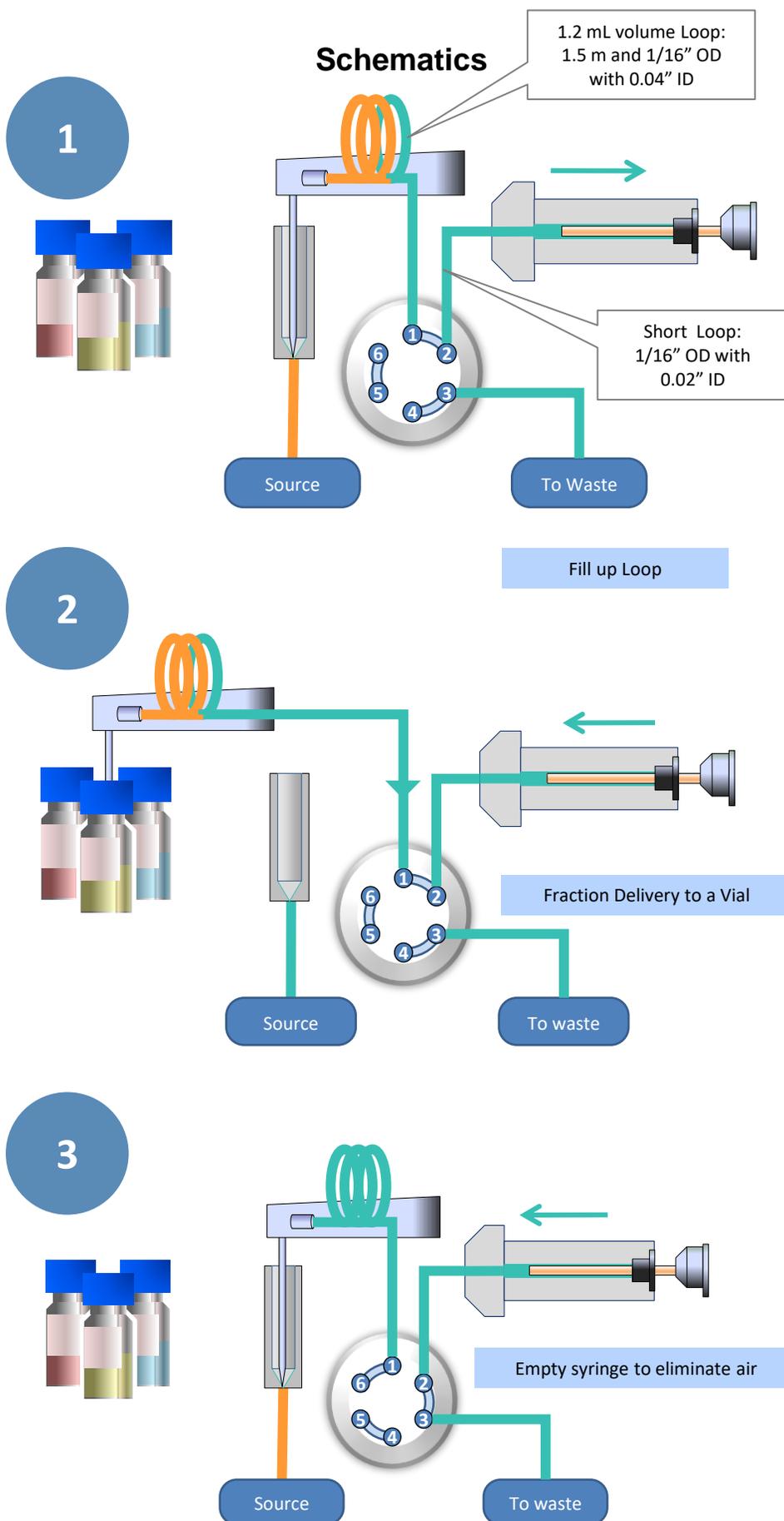
Valve: 2x6
Syringe: 4000 μL

This autosampler application allows users to automate sample retraction and storage for further analysis or as a representative record. An accurate sample volume that can be varied by the user can be drawn from a source connected to the injection port via tubing. Additional functions includes sample mixing with some stabilization solutions or reagent, needle cleaning with up to 4 solutions, and sample shaking. Sample storage capacity is 48 vials with 2 mL volume or a 96-well plate. The loop and connection tubing can be customized to different lengths, IDs, and volumes.

1) This application begins with the system in its idle state, with the needle in the injection port, the syringe in the 0 position, and the valve in Position 2. When the collection is initiated, the pump fills the loop with a set volume of sample from the source.

2) The needle into the designated sample vial, and then the pump pushes the sample out of the needle and into the vial.

3) The needle returns to the injection port. The valve then switches to Position 1, while the pump purges any remaining air down the waste line.



Loading Fluidic Devices

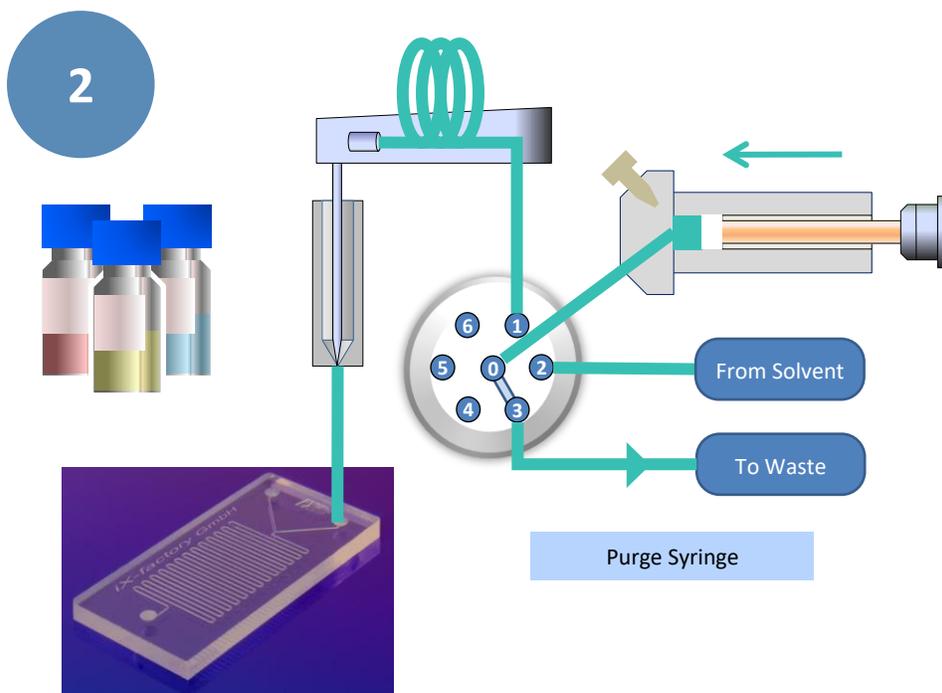
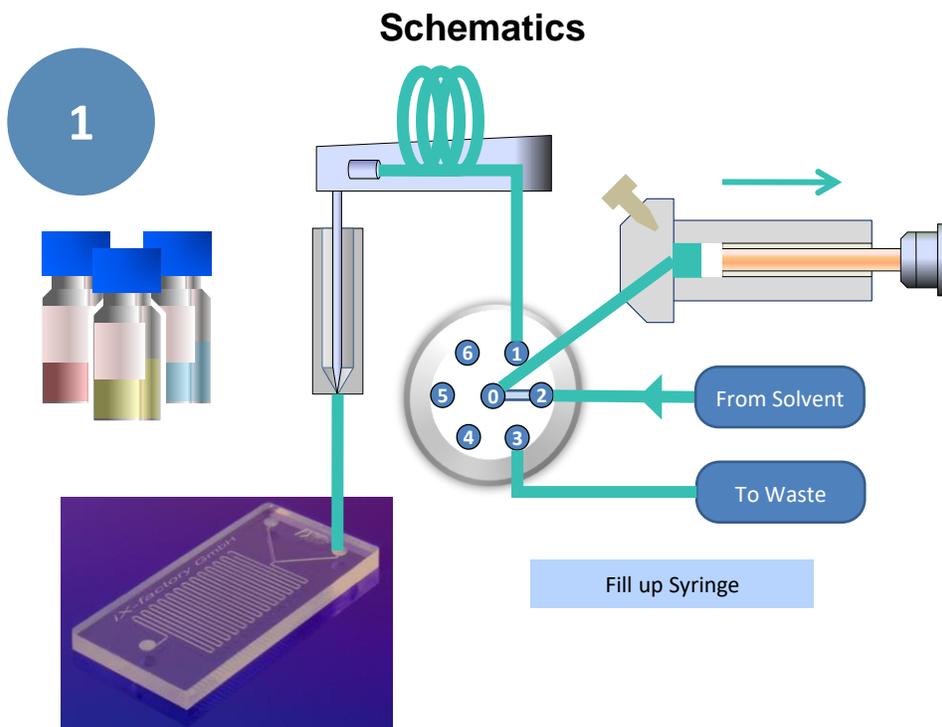
Configuration:

Valve: 7x6
Syringe: 150 or 4000 μL

This autosampler application allows users to automate sample storage and delivery to a microfluidic device (chip). An accurate sample volume that can be varied by the user can be delivered to a line connected to the chip. Additional functions include sample mixing, needle cleaning with up to 4 solutions, and sample shaking. Sample storage capacity is 48 vials with 2 mL volume or a 96- or 384-well plate.

1) This application begins with the system in its idle state, with the needle in the injection port, the syringe in the 0 position, and the valve in Position 2. When the injection is initiated, the pump fills up the syringe with solvent.

2) The valve then changes to Position 3 and the pump pushes the solvent out of the syringe to purge and clean it, removing any trace impurities that may be left over from a previous injection.



Loading Fluidic Devices

Configuration:

Valve: 7x6
Syringe: 150 or 4000 μL

3) The needle then descends into the chosen sample while the valve switches to Position 1. Once the needle and valve are set, the syringe draws in the set volume of the sample, temporarily holding it in the loop behind the needle.

4) The needle then returns to the injection port. Once the needle settles, the pump pushes the sample through the port and onto the path towards the chip.

The valve then switches back to Position 2, returning the entire system to the idle, standby state.

Specifications:

Instrument size: 6 x 6.5 x 7 inch
15 x 16 x 17 cm

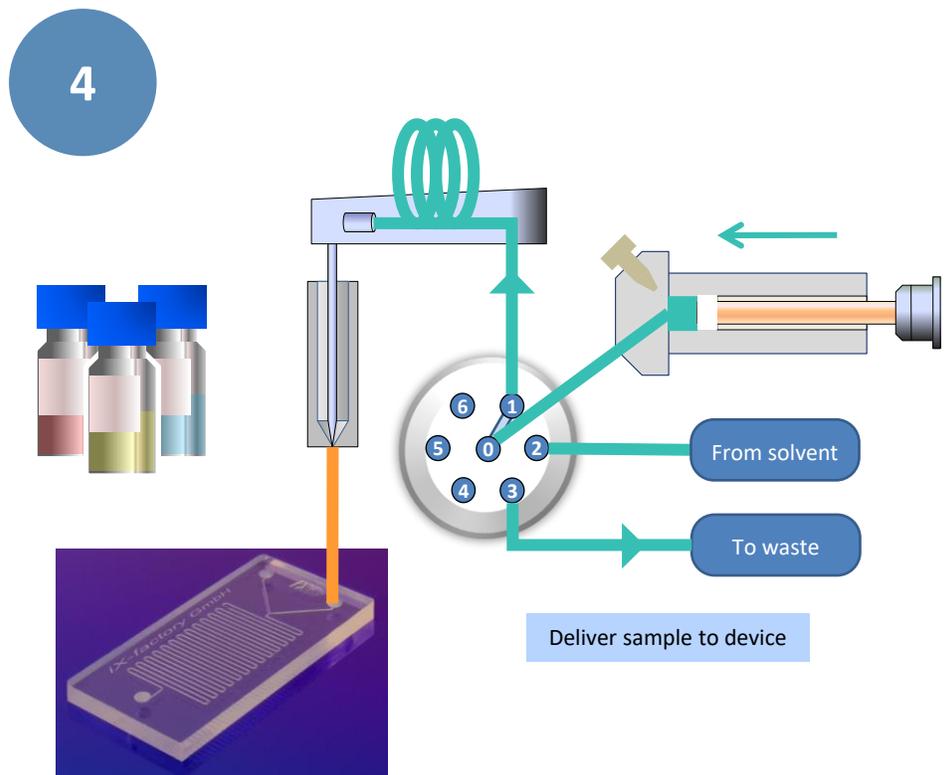
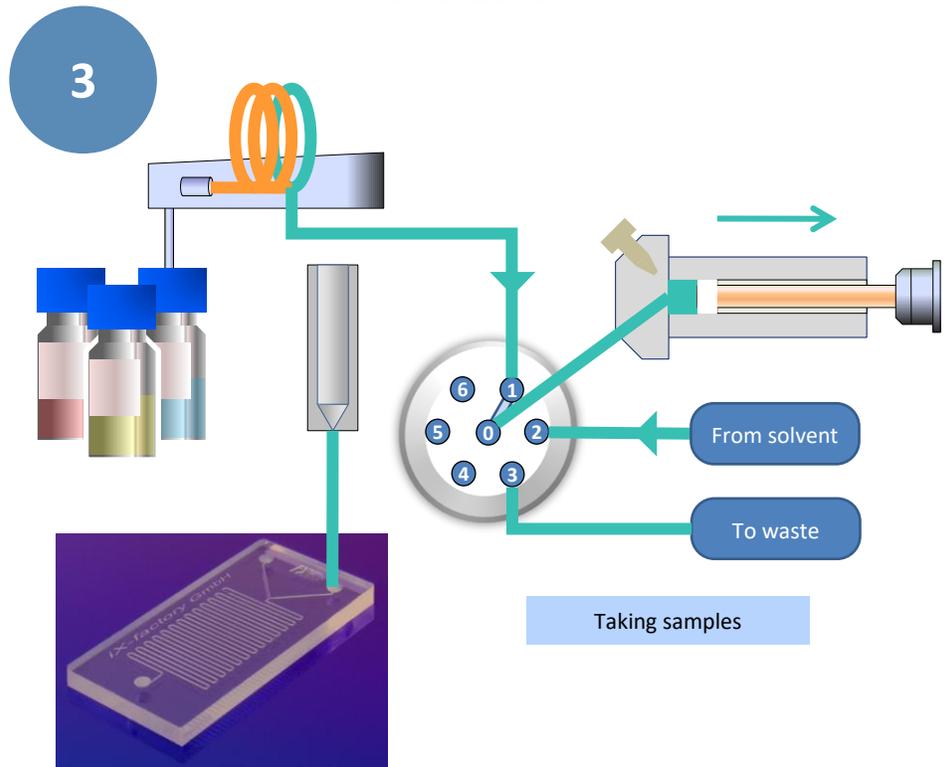
Weight: 5 lb
2.3 kg

Pressure max: 5,000 psi
344 bar

Communication: USB-B (serial)

Contact with liquid : SS316, PEEK,
PTFE, Vespel

Schematics



Software

Options:

1) Serial communication allows customers to achieve maximum customization by giving them complete control over automated programs.

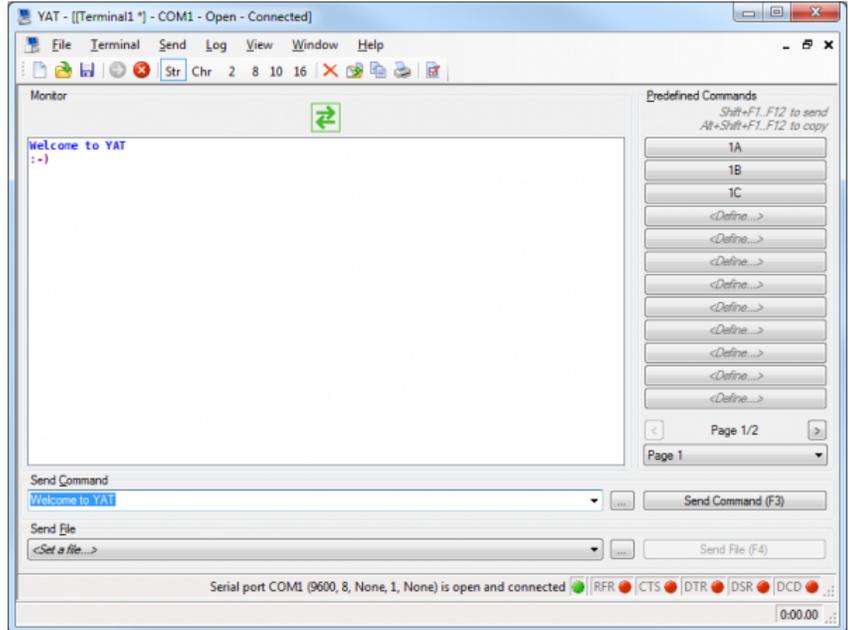
All Autosampler purchases will come with a copy of the Command Protocols so you can start building up your Automated Program as soon as possible.

Serial communication also has the added benefit that it is compatible with any operating system as long as you have a Serial terminal installed, have downloaded the correct drivers, and the Autosampler is connected to your computer via the included USB A – USB B cable.

2) OEM software gives users simple manual control over each component within the Autosampler, ideal for simple tests that do not require automation.

The software can be downloaded directly from our website and is compatible with both Windows 7 and Windows 10. Once it is installed and your device is connected, you can begin controlling it immediately!

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