

PN8050 FRC

FFF Fraction Collector Module



PN8050 Fraction Collector

Features

The Postnova PN8050 FFF Fraction Collector employs the latest state-of-the-art robotic sample and fluid transfer technology such as a double needle, special wash routines for minimal carry over and direct fractionation into closed vials. It can be operated with different microwell plates, Eppendorf caps as well as chromatography and preparative vials. It is available as biocompatible and metal-free version and thus is the ideal fraction collector for use in Field-Flow Fractionation and off-line coupling to spectroscopy detection such as AAS, ICP-OES and ICP-MS.

Offering space for two stainless steel racks or two well-plates, the PN8050 is ideally suited to be integrated with a wide range of different Postnova Field-Flow Fractionation systems and for various applications with small, normal or large volume fractions. The precise and reliable designed Peltier cooling/heating keeps sample fractions stable in a closed environment which is hermetically sealed for maximum reproducibility and minimal artefact generation. The temperature range from 5°C up to 40°C prevents sample degradation, solvent evaporation or precipitation and aggregation of collected fractions during storage and processing with any Postnova FFF system.

The PN8050 fraction system allows the flexible use of 96-well or 384-well plates, deep or shallow, sealed or open. Also conventional vial systems such as standard chromatography vials 1.5 mL sealed or open and with or without micro-insert can be used. The system can also handle special vial formats such as small Eppendorf tubes and preparative vials with 10 mL volume. For absolute metal-free operation Postnova offers special PFA and pure Quartz glass vials which can be closed with caps and septa.

The proven and reliable sample fractionation concept with a hermetically sealed flow path assures unrivalled fractionation precision and accuracy for a broad range of delicate samples and avoids any contamination problem from the beginning. No possibility for introduction of dust particles and no drops in between vials are the result of this new fraction collector concept. Both, the special design of the needle wash station and the rapid wash solvent delivery, ensures a very efficient removal of contaminants within a short time. Additionally the possibility to select an extra wash solvent helps to get rid of even the stickiest analyte.

Special Features of the PN8050 Fraction Collector System

- Unique hermetically sealed flow path with direct fractionation into sealed vials under temperature controlled conditions avoiding any contamination and sample degradation.
- State-of-the-art robotic fraction collector system, fully compatible with the complete line of Postnova FFF hard- and software products.
- Complete integration of the modular fraction collector system with FFF, MALS, DLS and ICP-MS systems for fully automated measurements.
- Free front accessible fluid lines, valves, needle, rinse port and sample trays for easy maintenance and cleaning procedures.
- Special NovaFFF software controlled operation allows to define exact fractionation times, various volumes and different methods for maximum flexibility.

Ordering Information

S-FRA-8050-001	PN8050 Fraction Collector
S-FRA-8050-002	Preparative Option for PN8050
S-FRA-8050-003	Metal-Free Option for PN8050
S-FRA-8050-006	Heating/Cooling Option for PN8050
S-FRA-8050-007	Heating/Cooling Upgrade for PN8050
S-FRA-8050-008	Analytical Option for PN8050



Vials

Z-VIA-11090500	1.5 mL Standard Vials
Z-VIA-18091306	10 mL Preparative Vials
Z-VIA-VIA-011	Eppendorf Caps
Z-VIA-VIA-014	0.5 mL PFA Vials
Z-VIA-VIA-015	7 mL PFA Vials

Z-VIA-VIA-016	1.5 mL Quarzglas Vials
Z-VIA-VIA-017	10 mL Quarzglas Vials

See Z-VIA-09151669 for caps
See Z-VIA-18031309 for caps

See Z-VIA-08151449 for caps
See Z-VIA-24080403 and
Z-VIA-22020409 for caps/septa
See Z-VIA-09151669 for caps
See Z-VIA-24080403 and
Z-VIA-22020409 for caps/septa

Specifications

- Environmental Conditions:
Temperature Range: 10 - 40°C
Relative Humidity: 20 - 80%
- Viscosity Range:
0.1 - 5 cP
- Communication:
TCP/IP
- Hermetically Sealed Fractionation Process:
Sample collection via needle directly through septum into vial
- Minimum Fraction Volume:
50 µL at 0.5ml/min flow rate
10 µL at 0.1ml/min flow rate
- Collection Capacity:
2 microwell plates according to SBS standards; 96-well high/low and 384-well-low formats, 48-vial or 12-vial trays; standard 1.5 mL vials, 10 mL prep vials and small Eppendorf tubes can be used. Maximum vial/plate height is 47 mm overall. Automatic missing vial or well plate detection via internal sensor
- Sample Collection:
Fully software controlled by time table
- Wash Option:
Reduction of potential carry-over
- Sampling Valve:
Electrical switching time < 100 ms
- Piercing Precision Needle:
+/- 0.6 mm
- Wash Solvent:
Integrated wash solvent bottle.
- Wetted Parts:
SS316, PTFE, Tefzel, Vespel, Glass, Teflon, Peek; depends on options (e.g. metal-free, etc.)
- Sample Tray Cooling/Heating:
Built-in Peltier cooling/heating 5° - 40°C
- Dimensions:
300 x 575 x 360 mm
- Weight:
21 kg
- Power Requirements:
95 - 240 V, 50 - 60 Hz

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