

# PN5300 ASP

FFF Autosampler Module



# PN5300 Autosampler

## Features

The PN5300 sample injector includes the latest state-of-the-art autosampler technology such as particle mixing option, a double needle with positive headspace pressure, extensive wash routines for minimal carry over and three injection modes including micro liter pick-up mode for zero sample loss, huge injection range and full biocompatibility.

Offering space for two deep well, shallow well or vial rack adapter plates, the PN5300 is ideally suited to be integrated with a wide range of different FFF systems. The newly designed Peltier cooling/heating keeps samples stable in a closed environment for maximum reproducibility. The temperature range from 4°C up to 40°C prevents degradation, evaporation or precipitation of sample during storage and processing with any FFF system.

The system allows the flexible use of 96- or 384-wells, deep or shallow, sealed or open. Of course „conventional“ vial systems such as standard chromatography vials 1.5 mL, sealed or open and with or without micro insert, can be used as well. The system is also open to 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 pressure assisted sample aspiration concept assures unrivalled injection precision and accuracy for a broad range of injection volumes and a large variety of samples.

No dilution, but removal of contaminants is the clear concept of the PN5300 when it comes to rinse/wash procedures to avoid any possible carry-over! 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 PN5300 Autosampler System

- State-of-the-art autosampler system, fully compatible with the completely line of Postnova FFF hard- and software products.
- Complete integration of the autosampler system with FFF-Light Scattering systems (MALS / DLS) for fully automated measurements of up to 384 samples (well plates).
- Free front accessible injection valve, needle, rinse port and sample trays for easy maintenance and cleaning procedures.

## Ordering Information

S-SAM-5300-001	PN5300 Autosampler
S-SAM-5300-002	Prep Option
S-SAM-5300-003	Metal Free Option
S-SAM-5300-004	Bio-Prep Option; prep kit
S-SAM-5300-006	Heating/Cooling Option
S-SAM-5300-007	Heating/Cooling Upgrade
S-SAM-5300-008	Analytical Option
S-SAM-5300-010	Option for Deepwell-Plates
S-SAM-5300-011	Particle Re-Suspension Mix Option
S-SAM-KIT-003	Maintenance Kit 3 PN5300, aqueous
S-SAM-KIT-004	Maintenance Kit 4 PN5300, organic

## Vials

Z-VIA-11090500	1.5 mL Standard Vials	See Z-VIA-09151669 for caps
Z-VIA-18091306	10 mL Preparative Vials	See Z-VIA-18031309 for caps
Z-VIA-VIA-011	Eppendorf Caps	
Z-VIA-VIA-014	0.5 mL PFA Vials	See Z-VIA-08151449 for caps
Z-VIA-VIA-015	7 mL PFA Vials	See Z-VIA-24080403 and Z-VIA-22020409 for caps/septa
Z-VIA-VIA-016	1.5 mL Quarzglas Vials	See Z-VIA-09151669 for caps
Z-VIA-VIA-017	10 mL Quarzglas Vials	See Z-VIA-24080403 and Z-VIA-22020409 for caps/septa



## Specifications

- Environmental Temperature: 10-40°C
- Humidity: 20-80% rel. Humidity
- Viscosity Range: 0.1 - 5 cP
- Communication: RS232C; option TCP/IP
- Inputs/Outputs: 2 TTL in; 1 relay out
- Sample Capacity: 2 Micro Titer plates according to SBS standards; 96-well high/low and 384-well low formats, 48-vial or 12-vial trays; any combination of plates is allowed, except for 384 low left and 96 high right side; standard 1.5 mL chromatography vials with/without inserts, 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
- Loop Volume: 1-5000 µL programmable 10 mL loop optional
- Dispenser Syringe: 500 µL standard syringe 2500 µL for prep option
- Injection 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; can vary with model metall-free etc.
- Injection Cycle Time: < 60 sec in all injection modes with injection volume < 100 µL including 300 µL wash
- Injection Modes: Full loop, partial loopfill and µL pickup mode, pressure-assisted sample aspiration
- Reproducibility: RSD < 0.3 % for full loop injections (at 1.0 cP) RSD < 0.5 % for partial loopfill injection (10 µL Vol.) RSD < 1.0 % for µL pick-up injections (10 µL Vol.)
- Sample Tray Cooling: Built-in Peltier Range 4°C up to ambient -3°C
- Sample Tray Cooling/Heating: Built-in Peltier cooling/heating 4°-40°C
- Prep Kit: 2.5 mL syringe; prep. valve; 10 mL sample loop; LSV needle; 24 pcs of 10 mL vials 2 prep sample trays, injection volume 1 µL up to 19.999 µL in 1 µL increments
- Dimensions: 300 x 575 x 360 mm
- Weight: 21 kg
- Power Requirements: 95-240 V, 50-60 Hz

## Contact

- Postnova Analytics GmbH  
86899 Landsberg, GERMANY  
T: +49 8191 985 688 0
- Postnova Analytics UK Ltd.  
Malvern, Worcestershire, WR14 3SZ, UK  
T: +44 1684 585167
- Postnova Analytics Inc.  
Salt Lake City, UT 84102, USA  
T: +1 801 521 2004

[info@postnova.com](mailto:info@postnova.com)  
[www.postnova.com](http://www.postnova.com)