



**POSTNOVA**  
Leading in FFF

# PN5300 Series

Autosampler for FFF



# PN5300 Autosampler

The PN5300 sample injector includes the latest state-of-the-art autosampler technology, such as 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 temp 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.

## Available Options:

- 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-5300-009 Option for Test Tubes
- S-SAM-5300-010 Option for Deepwell-Plates
- S-SAM-5300-011 Particle Re-Suspension 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-013 1.5 mL Tubes See Z-VIA-CAP-013 for 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
- Dimensions: 300 x 575 x 360 mm
- Weight: 21 kg
- Power Requirements: 95-240 V, 50-60 Hz
- 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 program mable, 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.

## Contact

- Postnova Analytics GmbH  
Max-Planck-Str. 14  
86899 Landsberg, GER  
T: +49 8191 985 688 0  
F: +49 8191 985 688 99
- Postnova Analytics Inc.  
230 S, 500 E, Suite 120  
84102 Salt Lake City, USA  
T: +1 801 521 2004  
F: +1 801 521 2884

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