Lachat’s precision autodilutor, the PDS200, used with the QuikChem 8500® Series Instruments, shines with numerous advantages:

- **Uses a single, rather than dual piston system, decreasing the time per dilution.**
- **Improves accuracy—the PDS200 performs dilutions over the range of 1.6- to 4000-fold within 10% accuracy.**
- **Eliminates carryover issues.**
- **Easy to access tubing connections.**
- **Easy to clean and maintain.**

### MECHANICAL ADVANCES IMPROVE SPEED

The use of a single rather than dual piston system improves measurement speed. The PDS200 has a single piston that is used in single mode for dilutions up to 100-fold, and in serial mode for dilutions above 100-fold. Controlling the movement of only a single piston improves speed by 12% in single mode and 16% in serial mode, without sacrificing accuracy or precision.

### ACCURACY EXCEEDS EXPECTATIONS

Carryover issues can be resolved with the PDS200. This has allowed for precision of less than 2.5% RSD and accuracy of less than 10% residual at 4000-fold dilutions. The table below shows the accuracy of the PDS200 at several dilution levels.

<table>
<thead>
<tr>
<th>Range in Dilutions</th>
<th>Accuracy Achieved Covered (Absolute % Error) for the Range</th>
</tr>
</thead>
<tbody>
<tr>
<td>1.6 - 100</td>
<td>0 - 4.5%</td>
</tr>
<tr>
<td>100 - 800</td>
<td>0.3 - 5.9%</td>
</tr>
<tr>
<td>800 - 4000</td>
<td>0.5% - 7.9%</td>
</tr>
</tbody>
</table>

* % errors calculated for groups of 5–10 replicates of each dilution. Absolute errors across modes are combined in this table. Three dilutors were tested.
Specifications*

Range:
1.6 to 4000-fold dilutions

Accuracy:
< 10% error

Precision:
< 2.5% RSD

Sample Processing Times:
Approx. 2.4 x cycle period for 1.6 to 100-fold dilutions (single dilutions)
Approx. 4.6 x cycle period for >100-fold dilutions (serial dilutions)

Sample Need:
Minimum of 2 µL/dilution (for 4000-fold) to maximum of 5 mL/dilution (for 1.6-fold)

Dimensions (W x H x D):
9 x 21 x 20.5 cm (3.5 x 8.25 x 8")

Construction:
Corrosion-resistant, powder-coated, polyester-painted aluminum outer

Power Requirements:
100–230 V, 50/60 Hz, 24 Vdc (2.2 amp) output

Compliance:
ETL listed to UL and CSA safety standards for North America. TÜV-GS and CE certified indicating compliance to the European low voltage and EMC directives.

The performance specifications listed here were based on internal testing; results may vary based on individual lab conditions and techniques.

*Subject to change without notice.

How To Order

A89103  PDS200 Autodilutor, 115V
A89203  PDS200 Autodilutor, 220V
5015900  Serial Cable, PDS200 - Dilutor to Sampler
5011200  Power Supply, PDS200
20026  Power Cord, 125V 10A
31196  Power Cord, 250V 10A
89020  Tubing Kit, PDS200; includes dual sample probe
21936  Sample Line Assembly - ASX-500/Dilutor; Tubing, pump tube and fittings from port 6 of the instrument valve to port B of the solenoid valve.
29915  Dual Probe Assembly, with Tubing and Fittings - ASX-500 Sampler/Dilutor
29920  Diluent Line Filter Assembly; Port E on dilutor to diluent
29940  DI Water Line Tubing Assembly; Port A on solenoid valve to DI water

For Technical Assistance, Price Information and Ordering

In the U.S.A.
Call toll-free (800) 247-7613.

Outside the U.S.A.
Contact the LACHAT office or distributor serving you.

On the Worldwide Web
www.lachatinstruments.com

E-mail for Support
support@lachatinstruments.com

E-mail for Sales
sales@lachatinstruments.com