

PDS200 AUTODILUTOR



Precision Dilutor: Improved Accuracy, Better Speed



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.

Summary of Performance Obtained with the PDS200*

Range in Dilutions	Accuracy Achieved Covered (Absolute % Error) for the Range
1.6 - 100	0 - 4.5%
100 - 800	0.3 - 5.9%
800 - 4000	0.5% - 7.9%

*% 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. TUV-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.

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Outside the U.S.A.

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