



Enabling Static and Flow-based SPR analysis with P4PRO & AFFIPUMP



Introducing the most versatile 4-channel surface plasmon resonance (SPR) system :

With its advanced technology, this device offers unparalleled control and flexibility, allowing users to easily switch between static and flow analysis modes with the addition of the Affipump, a high accuracy dual-syringe pump that provides a wide range of flow rate and a stable baseline. Whether you need individual or multi-channel analysis, the P4PRO and Affipump delivers real-time, inline controls and unbeatable performance. Experience the future of static and flow analysis with our revolutionary product.

Contact Us

-  www.affiniteinstruments.com
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Features of P4PRO and Affipump

-  Multi-four channel capability
-  Direct, real-time, inline controls
-  Minimal sample processing data artifacts
-  Semi-automated sample delivery option
-  Minimal hands-on time
-  Runs both static and flow analyses

▶ Supported Assays



Affinity
characterization



Specificity
screening/ranking



Yes/no
binding



Live binding
data



Concentration
analysis



Kinetics
characterization

▶ Product Specifications

Specification	P4PRO and Affipump
Weight	4.4 kg and 2.5 kg
Dimensions	25 cm x 25 cm x 13.5 cm and 20 cm x 9.5 cm x 27 cm
Mode	Hybrid (Static and Flow)
Number of channels (Simultaneous reading)	Static: 4 Flow: 2 (Total of 4 channels)
Flow rate range	0.3 - 10,000 uL/min
Injection volume required	Static: 300 uL Flow: 5 - 100 uL
Detection rate	1 or 5 Hz
Sample introduction mode	Semi-automated
Run time per cycle	2 - 15 minutes
Operating temperature range	Ambient
Power requirement	24V and 12V

Performance

Detection limit	fM (assay dependent)
Association rate (kon) range	$10^3 - 10^7 \text{ M}^{-1} \text{ s}^{-1}$
Dissociation rate (koff) range	$10^5 - 10^{-1} \text{ s}^{-1}$
Affinity constant (KD) range	$\geq \text{pM}$

Applications

✓ Biosensing

Real-time monitoring and characterization of biomolecular interactions

✓ Drug Discovery

Leveraging molecular interactions to develop therapeutic compounds

✓ Biomanufacturing

Optimizing bioproduction processes for better outcomes

✓ Environmental Testing

Deciphering environmental health through chemical and molecular analysis

✓ Bioanalytical Testing and More

Exploring transdisciplinary fields of bioanalysis

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