

2465 ELECTROCHEMICAL DETECTOR

What are your experiences with Electrochemical detection?

- Difficulty developing rugged electrochemical methods?
- Wasted time in manual method development due to lack of data system control?
- Problems with performance consistency?
- Difficulty demonstrating compliance for electrochemical detection assays without documented instrument methods and reliable qualification methods?

Waters® 2465 Electrochemical Detector combines sensitivity, reliability and simplicity to deliver the best electrochemical detection performance on the market today. Supported and controlled by Waters award-winning Empower™ software, the 2465 is easy-to-use and fully 21 CFR Part 11 compliant-ready. Combined with our industry-leading Alliance® HPLC Separations Module and extensive chemistry products, the 2465 detector is part of a fully automated, reliable electrochemical system that provides detection sensitivity suitable for a wide variety of applications needs.



Waters 2465 Electrochemical Detector.

With the 2465 Electrochemical Detector, you will benefit from:

- Multiple detection modes—direct current, pulsed amperometric and scanning
- Rugged flow cell design ensuring maximum system uptime
- Wide range of working and reference electrodes for greater application flexibility
- Integral flow cell and column heater compartment ensures temperature stabilization for better accuracy

Unique, rugged detector design

The 2465 electrochemical detector is designed for ultra-trace analysis in standard and microbore applications, as well as some capillary-scale applications. The detector's uniquely rugged flow cell design permits unusually short stabilization times, which is aided by the integral Faraday shielded oven for both the flow cell and HPLC column.



The 2465 detector's front-mounted components make routine maintenance uncomplicated.

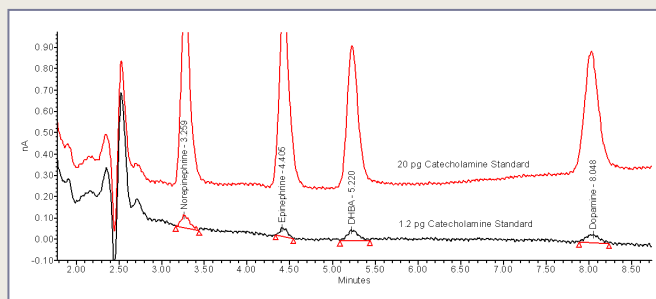
The design of the flow cell complements the operational simplicity of this detector. The cell fits together in matched halves, giving users the ability to mix-and-match working and reference electrodes as needed—lowering the total cost-of-ownership and enhancing overall system flexibility. Additionally, the flow cells are easy to install and, where required, easy to re-assemble after cleaning or maintenance.



Flexibility makes method development simple

The 2465 has multiple flow cell configurations with working electrode materials such as glassy carbon, platinum, silver, gold and copper. The cell also accommodates a variety of reference electrodes such as ISAAC (in-situ silver/silver chloride), traditional salt-bridge and the Hy-REF, which limits air bubble formation.

The ISAAC reference has been specifically designed to make traditional glassy carbon applications, such as neurotransmitter detection, simple, eliminating the need for a liquid reference. The Hy-REF is ideal for carbohydrate analysis, compatible with high pH mobile phases, and is entirely maintenance free.



The ISAAC reference electrode is an excellent choice for electrochemical applications as a result of its well-defined potential and ease-of-use.

Adding to its inherent flexibility, the 2465 detector offers three operation modes, fully supported by Empower software:

- Direct current amperometric mode
- Pulsed amperometric mode
- Scan mode

These features, in combination with the instrument's modern low-noise electronics, produce exceptional performance and minimal result variability.

System Performance

The 2465 Electrochemical detector—when part of an Alliance-based, Empower-controlled HPLC system—redefines what reliability, reproducibility and system-based performance can mean for today's laboratories. The system offers the user unprecedented applications selectivity with a rugged, stable and sensitive detection methodology, all with the convenience of our world-class Empower data system automation.

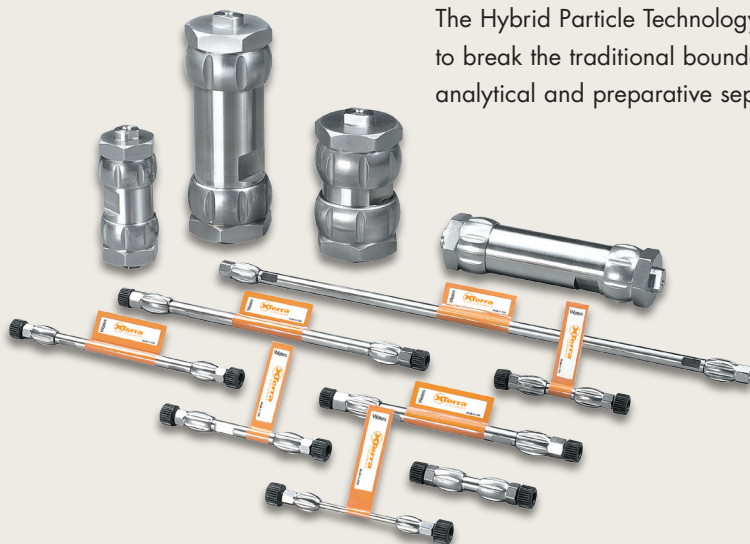
The detector is fully automated, compliant-ready, and supported by Waters documentation and methodologies. Waters provides the performance qualification sample, electrochemically-clean column and prepared, pre-packaged mobile phase to make qualification simple.



Coupled with Waters Alliance 2695 Separations Module and industry-leading chemistries, like our XTerra® columns, users can achieve a truly worry-free, total system solution.

XTerra Columns—The most successful column in over 30 years of stationary phase technology.

The Hybrid Particle Technology of XTerra® columns allow chromatographers to break the traditional boundaries and realize the full potential of their analytical and preparative separations.



Worldwide services and support

Waters provides the solutions you need to maintain maximum uptime with your Waters systems.

- Analytical Instrumentation and Software Services include Total Assurance Plans that extend and enhance the original warranty you receive when you buy a Waters product. These plans minimize the level of insurance investment and deliver the value you need to avoid costly and time-consuming system downtime.
- Waters Compliance Services provide you with timely and cost-efficient solutions to your regulatory compliance challenges. You can use our compliance Service to effectively train and certify personnel in equipment and regulatory requirements for cGMP/GLP compliance, significantly reducing operating costs.
- Customer Education Services provide extensive HPLC and LC/MS training and education at your site, at our corporate headquarters or at our local offices around the world.
- Representatives of our global Customer Assurance Organization—trained and certified in all our products and current in HPLC and LC/MS applications—are available in person, on the phone, via FAX or at www.waters.com to answer questions and provide you with around-the-clock support and information services.

Ordering Information

2465 Pulsed Electrochemical Detector without flow cell	186002465
Flow cell, 2 mm Glassy Carbon WE, Salt Bridge Reference	205004115
Flow cell, 2 mm Glassy Carbon WE, ISAAC Reference	205004215
Flow cell, 2 mm Platinum WE, ISAAC Reference	205004220
Flow cell, 2 mm Silver WE, Hy-REF Reference	205004330
Flow cell, 3 mm Gold WE, Salt Bridge Reference	205004125
Flow cell, 3 mm Gold WE, ISAAC Reference	205004225
Flow cell, 3 mm Gold WE, Hy-REF Reference	205004325
Flow cell, 3 mm Copper WE, Hy-REF Reference	205004335
Flow cell, 3 mm Glassy Carbon WE, Hy-REF Reference	205004340
Micro flow cell, 0.7 mm Glassy Carbon WE, Salt Bridge Reference	205004100

Sales Offices:

Austria	43 1 877 18 07
Australia	61 2 9933 1777
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Canada	800 252 4752 X2205
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People's Republic of China	86 10 8451 8918
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