

## PCM-3000 pH and Conductivity Monitor



*The PCM-3000 pH and Conductivity Monitor allows for accurate on-line pH and conductivity monitoring of HPLC applications. It is an upgrade for all UV-Vis detector variants of the UltiMate® 3000 LC system platform, including Diode Array, Multiple Wavelength, and Variable Wavelength Detectors. The combination of UV-Vis detector and PCM-3000 is ideal for pH gradient ion-exchange chromatography of compounds such as monoclonal antibodies and charge variants, conductivity monitoring in gradient separation of biomolecules, or any other application where conductivity or pH monitoring is of interest.*

The PCM-3000 is a high-performance, easy-to-use, and cost-effective solution for any pH and conductivity monitoring challenge. The main features are:

- Simultaneous pH and conductivity monitoring with wide dynamic ranges for highest application flexibility.
- Wide flow-rate range:
  - Optimized fluidics support even semipreparative flows of up to 100 mL/min.
  - Low-volume flow cells for short response times and good compatibility with low flow rates.

- Best accuracy through temperature compensation of conductivity and pH results.
- Full mechanical and software integration into the UltiMate 3000 platform.
- Easy access to all fluidic parts.
- Data control and handling with Chromeleon® software for best ease of use.
- Flexible and extensive calibration.
- Powerful Chromeleon reporting and charting functions.
- Cost-effective, plug-and-play

Now sold under the  
Thermo Scientific brand

**Thermo**  
SCIENTIFIC



Passion. Power. Productivity.

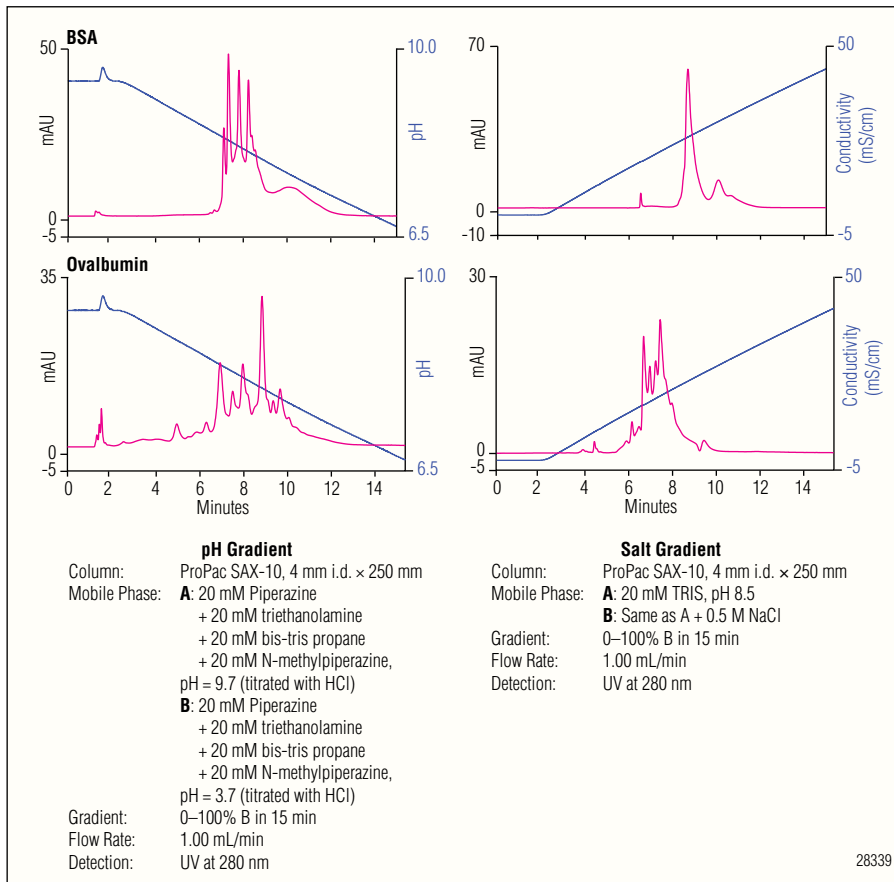


Figure 1. Comparison of pH gradient-based anion-exchange chromatography (AEC, left) and salt-gradient-based AEC (right).

## ORDERING INFORMATION

In the U.S., call (800) 346-6390 or contact the Dionex Regional Office nearest you. Outside the U.S., order through your local Dionex office or distributor. Refer to the following part numbers:

Description	Part Number
PCM-3000 for DAD/MWD-3000 Diode Array/ Multiple Wavelength Detector Series.....	6082.2000
PCM-3000 for VWD-3000 Variable Wavelength Detector Series.....	6082.2005
PCM-3000 modules are shipped with pH and conductivity flow cell and a pH electrode.	
Description	Part Number
Related UV-vis Detectors (all shipped without optical flow cell)	
DAD-3000 Diode Array Detector .....	5082.0010
DAD-3000RS Rapid Separation Diode Array Detector.....	5082.0020
MWD-3000 Multiple Wavelength Detector .....	5082.0030
MWD-3000RS Rapid Separation Multiple Wavelength Detector.....	5082.0040
VWD-3100 Variable Wavelength Detector .....	5074.0005
VWD-3400RS Rapid Separation Variable Wavelength Detector.....	5074.0010

## SPECIFICATIONS

### Conductivity

**Range:** 1  $\mu$ S/cm–1 S/cm

**Accuracy:**  $\pm$ 2% of full scale calibration range (1  $\mu$ S–100 mS/cm, 1-point calibration or 1  $\mu$ S–200 mS/cm, 2-point calibration) or  $\pm$ 10  $\mu$ S/cm, whichever is greater

### Flow Cell:

Cell Constant: 50 /cm ( $\pm$ 20 /cm)

Max Flow Rate: 100 mL/min

Max Pressure: 5 MPa (50 bar, 725 psi)

Volume: 21  $\mu$ L (fitting to fitting, active volume is 2  $\mu$ L)

Temp. Range: +4  $^{\circ}$ C to +50  $^{\circ}$ C (liquid)

Wetted Parts: PEEK™ and titanium

Temp. Compensation: Yes

### pH

**Range:** pH 0–14 (specifications valid between pH 2–12)

**Accuracy:** 20–30  $^{\circ}$ C:  $\pm$ 0.1 pH,  
30–40  $^{\circ}$ C:  $\pm$ 0.35 pH

**Drift:** max 0.1 pH units deviation/10 h

### Flow Cell:

Volume: 28  $\mu$ L (fitting to fitting)

Max Flow: 100 mL/min

Max Pressure: 0.7 MPa (7 bar, 102 psi)

Temp. Range: +4  $^{\circ}$ C to +50  $^{\circ}$ C (liquid)

Wetted Parts: PEEK, epoxy, glass, HDPE, EPDM

Temp. Compensation: Yes

### General Specifications

**Dimensions:** (h × w × d):

18 × 14 × 29 cm (separate unit)

18 × 11 × 22 cm (mounted to detector)

**Weight:** 1.5 kg

**Power requirements:** 5 V DC, max. 1.5 W (provided internally by DAD/MWD/VWD)

Chromleon, UltiMate and ProPac are trademarks of Dionex Corporation.  
PEEK is a trademark of Victrex PLC.

Passion. Power. Productivity.



#### Dionex Corporation

1228 Titan Way  
P.O. Box 3603  
Sunnyvale, CA  
94088-3603  
(408) 737-0700

#### North America

U.S./Canada (847) 295-7500

#### South America

Brazil (55) 11 3731 5140

#### Europe

Austria (43) 1 616 51 25 Benelux (31) 20 683 9768 (32) 3 353 4294  
Denmark (45) 36 36 90 90 France (33) 1 39 30 01 10 Germany (49) 6126 991 0  
Ireland (353) 1 644 0064 Italy (39) 02 51 62 1267 Sweden (46) 8 473 3380  
Switzerland (41) 62 205 9966 United Kingdom (44) 1276 691722

#### Asia Pacific

Australia (61) 2 9420 5233 China (852) 2428 3282 India (91) 22 2764 2735  
Japan (81) 6 6885 1213 Korea (82) 2 2653 2580 Singapore (65) 6289 1190  
Taiwan (886) 2 8751 6655

www.dionex.com

LPN 2810 PDF 4/11  
©2011 Dionex Corporation