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## smartCHEM-Ion



请使用翻译作用于这页底部以翻译页对汉语。

TPS Australia - Quality hand-made instruments since 1968.

### smartCHEM-Ion Laboratory Specific Ion - pH-mV-Temperature Analyser



[Full size image](#)

**Fully programmable for any Monovalent or Divalent Anion or Cation.**

**Simultaneous display of...**

- ◆ Specific Ion, pH or mV
- ◆ Temperature
- ◆ Date & Time

**Automatic Stability Function**

**PIN Code Access**

**Programmable "Calibration Due" Alarm**

**240 x 64 dot graphic display with large digits, full text messages and backlight.**

**2730 reading memory with Automatic Datalogging.**

**RS232 computer interface port.**

**Automatic calibration.**

**Readout of probe condition for instant troubleshooting.**

	<p><b>Fully waterproof design.</b></p>
<p>The <b>smartCHEM-Ion</b> is a research grade Specific Ion/pH/mV meter with all the features expected in today's modern laboratories.</p>	<p><b>PIN Code Access</b> The Access Code system is provided for those users who need to ensure the integrity of recorded data, calibration settings and so forth. The Access Code function will prevent anyone who does not know the code from entering the menu system. Keys that are available during normal measurement, (Store, Print, Autolog and F1 to F5 ) are still available without the Access Code. This means that others are still able to carry out day-to-day work.</p>
<p><b>Datalogging</b> The <b>smartCHEM-Ion</b> comes with a 2730 reading memory. Readings can be recorded manually, or automatically logged at preset intervals.</p>	
<p><b>RS232 Serial Port Interface</b> The capabilities of the <b>smartCHEM-Ion</b> have been expanded with the RS232 port, which is standard equipment (cable sold separately). All readings stored in memory can be downloaded to an RS232 printer or PC. The RS232 port also allows the <b>smartCHEM-Ion</b> to log directly to the printer or PC. <a href="#">WinTPS</a> Communication software for Windows 3.1 or 95, 98 &amp; ME is available.</p>	<p><b>Easy to use</b> The <b>smartCHEM-Ion</b> has a 240 x 64 dot graphic display. It features a user-friendly menu system, making the handbook virtually unnecessary. Full-text help and error messages are provided. All readings and messages are provided in large, bold characters.</p>
<p><b>Automatic Stability Function (ASF)</b> ASF adds an extra level of versatility to the <b>smartCHEM-Ion</b>. When ASF is activated, the <b>smartCHEM-Ion</b> monitors all parameters that are currently in use. When ALL parameters become stable, the readings are frozen on the display. ASF is automatically activated with extra fine settings during calibration, to ensure the most accurate possible results for the user.</p>	<p><b>Automatic Calibration</b> Where necessary, the user is able to define the standards to be used for calibration. For pH calibration, the <b>smartCHEM-Ion</b> is programmed to automatically recognise the most popular buffers, making calibration a breeze. Any non-standard buffer value can be entered during calibration.</p>
<p>ASF can also be used during Manual and Automatic Datalogging. When used during Automatic Datalogging, the <b>smartCHEM-Ion</b> will log until a stable end-point is reached for all parameters, then stop logging.</p>	<p><b>Karl Fischer Measurements</b> A polarisation output is provided for Karl Fischer moisture titrations.</p>
<p><b>Good Laboratory Practices</b> To comply with GLP guidelines, the date, time and results of the last</p>	<p><b>Reliability and Service</b> The <b>smartCHEM-Ion</b> is fully waterproof to IP65, so it is suitable for even the harshest laboratory or factory environments.</p> <p>TPS has been manufacturing top quality, reliable instruments and electrodes since 1968. The TPS Quality System has been</p>

Date, time and results of the last calibration are stored in memory, along with the instrument's serial number. This data can be displayed or sent to the RS232 port. All readings stored in memory are stamped with the date and time. Warning of failed calibration is provided.

A calibration alarm can be programmed to whichever parameters the user chooses. The alarm can be set for Daily, Weekly, 2 Weekly or 4 Weekly. The calibration alarm can also be switched off.

The smartCHEM-Ion system has been certified in accordance with the AS/NZS ISO 9001 standard. Our service is also of the highest standard. Spares and accessories are always held in stock, and our modern service facilities ensure a rapid turn-around for maintenance and repair work.

## Specifications

### **Specific Ions**

Ranges : Auto-ranging in units of ppM, ppK, % and Exponential Notation  
 Resolution : User selectable for 3 significant digits, 2 significant digits or Auto-rounding  
 Accuracy : +/-Least significant digit

### **pH**

Ranges : 0.000 to 14.000 pH  
 0.00 to 14.00 pH  
 Resolution : 0.001 pH  
 0.01 pH  
 Accuracy : +/-0.002 pH  
 +/-0.01 pH

### **Millivolts & Relative Millivolts**

Range : 0 to +/-400.0 and 0 to +/-1500 mV (auto-ranging)  
 Resolution : 0.1 mV  
 1 mV  
 Accuracy : +/-0.15 mV  
 +/-1 mV

### **Temperature**

Range : -10.0 to 120.0 °C  
 Resolution : 0.1 °C  
 Accuracy : +/-0.2 °C

### **Temperature Compensation**

0 to 100 °C, automatic or manual.

### **Recorder Output (optional)**

Max 0 to 2000mV output for any one parameter at one time.  
 Output impedance approx 1000 Ohms.  
 Resolution approx 2 mV.

### **Clock**

24 Hour Calendar clock.  
 Displays date, month, year, hours, minutes, seconds.

### **Good Laboratory Practices**

Date, time and value of last successful calibration for each parameter are stored. This information can be recalled or sent to the RS232 port at any time.

### **Calibration Alarm**

Calibration Alarm can be activated for parameter of user's choice. Calibration Alarm can be set to Daily, Weekly, 2 Weekly or 4 Weekly.

### **Display**

240 x 64 dot graphic LCD with large, bold digits, user-friendly menu system and full-text help and error messages.

### **Enclosure**

Tough, high impact ABS. Splash resistant one-piece lid.

### **Dimensions**

240 x 180 x 105 mm

**Calibration**

Automatic calibration for all parameters.  
User can define standards where applicable.

**Memory**

2730 readings including date and time.

**Automatic Datalogging**

User-set for one reading every 2 to 90 seconds, minutes or hours.

**RS232 Serial Port Output**

1200, 9600, 19200 and 38400 Baud.  
8 Bits, No Parity, 1 Stop Bit,  
XON/XOFF Protocol

**Mass**

Instrument only : Approx 0.8 kg  
Full Kit : Approx 3.0 kg

**Environment**

Temperature : 5 to 45 °C  
Humidity : 0 to 90% R.H.

**Power**

12V DC via AC/DC adaptor.  
AC/DC adaptor to suit specified country is supplied.

**Ordering Information**

smartCHEM-Ion Ion/pH/mV-Temp....121163 **Part No**

**Kit Includes**

(Ion sensors sold separately.)  
Temperature/ATC Sensor.....121248  
AC/DC Power Adaptor.....130037  
Manual.....130050

**Please click the following links for further details on the TPS range of sensors...**

[Specific Ion and Reference sensors](#)

[pH Sensors](#)

[Redox \(ORP\) Sensors](#)

**Options and Accessories** **Part No**

**Computer Interface:**

Serial cable for computer.....130041  
Serial to USB adaptor cable.....130087  
**WinTPS** Software for Windows.....130086

**Computer Interface:**

Recorder Output & cable.....130028

**Sensor Holder:**

Flexible Sensor Holder.....130088



[Download this Specification Sheet in PDF format.](#)



[Download the full colour smartCHEM Series Brochure \(1.76 MB PDF\).](#)



[Download the handbook for this instrument.](#)

**Hint :** Right click on a link, then select "Save Target As..." or "Save Link As..." to save the file to your own computer.

## smartCHEM-Ion

If you do not have Adobe Acrobat in your computer, a free Acrobat Reader can be downloaded by clicking on the following link.



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*Version 1.0*

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WP-90

smartCHEM-Ion

smartCHEM-Ion3

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A.B.N. 30 009 773 371

Last modified: January 23, 2009