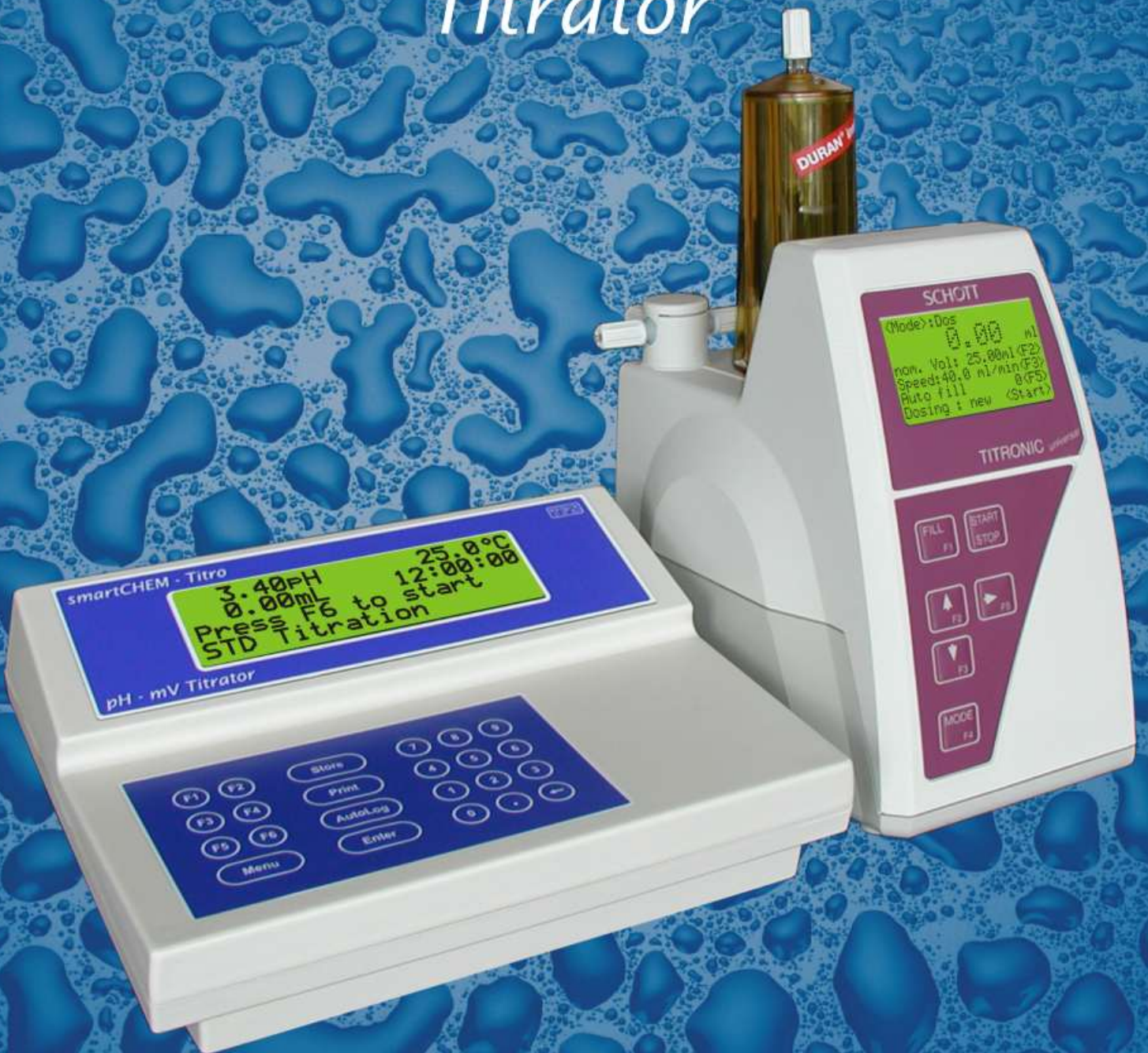




Quality. Service. Value.

smartCHEM - Titro Automatic pH / mV Titrator



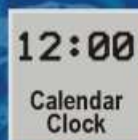
www.tps.com.cn



Waterproof



User Friendly



12:00
Calendar Clock



GLP



Notepad Function



Automatic Logging



RS232 Port

This brochure is a supplement to the complete smartCHEM Series brochure

smartCHEM - Titro

- **Automatic pH and mV Titrator.**
- **Fully programmable titration function can be fine tuned for speed and reproducibility.**
- **Interfaces with Schott Titronic Universal piston burette**
- **2730 Reading Memory**

Ordering Information

smartCHEM - Titro. . 121106

Kit Includes

pH Sensor with Porous Teflon	121207
Double Junction Reference	
Temperature/ATC Sensor	121248
Burette Connection Cable	130122
pH6.88 Buffer, 200mL	121306
pH4.00 Buffer, 200mL	121381
AC/DC Power Adaptor.	130037
smartCHEM-Titro Handbook.	130050

Options

Schott Titronic Universal	130350
Piston Burette, 50mL	
Flexible Arm Electrode Holder	130088
RS232 Serial Interface Cable	130041
Serial to USB Adaptor	130087
(must also use 130041 Serial Cable)	
Analogue Recorder Port	130028
(includes cable)	
WinTPS Communication	130086
Software for Windows 95 and later	

Optional Sensors

Intermediate Junction pH.	121234
ORP Sensor with Porous Teflon.	121262
Double Junction Reference	
Intermediate Junction ORP	121263
Double Platinum Sensor	122209
for Karl Fischer Titrations	

Automatic Titrator

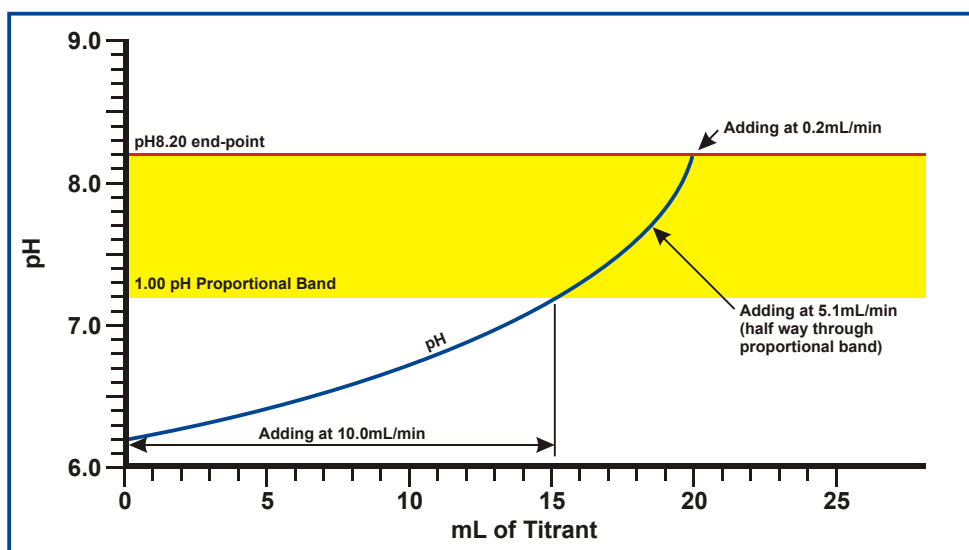
The **smartCHEM - Titro** has all the features of the **smartCHEM - pH** but with an Automatic Titration function. The meter has a second serial port that is used to interface with the Schott Titronic Universal piston burette. TPS has chosen this burette, as Schott is widely recognised as one of the World's leading manufactures of precision glassware and laboratory equipment. Once connected, **smartCHEM - Titro** controls all burette operations, making operation quick and easy for the user. The volume of titrant added is displayed on the **smartCHEM - Titro** and included with logged data.

Fine Tune Titration Process

The Automatic Titration process can be fine tuned by the user to suit individual requirements. Changing the settings can, for example, speed up the titration process for higher daily throughput. The following settings are user adjustable ...

- Titrate from Acid → Base or Base → Acid.
- Titrate from Low mV → High mV or High mV → Low mV.
- Proportional dosing band width.
- Maximum and minimum dosing rates as reading approaches end point.
- Delay time when end point has been reached.

The diagram below shows a typical titration curve using the default titration settings. It is an Acid → Base titration with a pH8.20 end point.



Enhanced Datalogging

The standard Automatic Datalogging has been updated for the **smartCHEM - Titro**. The unit can be programmed to commence logging at the beginning of a titration and stop when the titration is complete. The user can then export the logged data to a computer (requires optional serial cable), and plot the titration curve, like the chart above.