

Potentiometric
Titrator

Agile

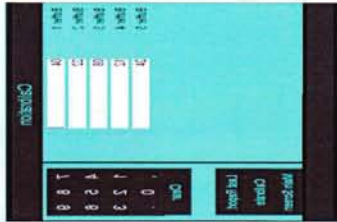


World class
solution to
titration
applications

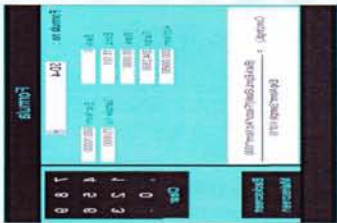
Potentiometric Titrator

Agile

pH Calibration Up to 5 point calibration for pH.



Digital Stirrer



Three formulae in Normality and seven formulae in sample mode. Facility to create & save user defined formulae

Result Units: Conc. %w/w, %w/v, ppm, g/L, mg/L, TAN /TBN (mg KOH/g). Universal user defined unit

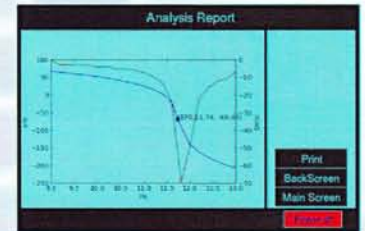
Aesthetically designed titration stand

Interchangeable burette module for quick change from one titration to another, with burette recognition and pre-entered data

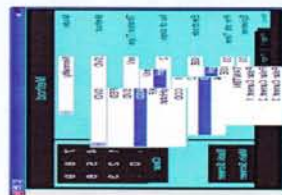
Corrosion resistant fiber body. Compact design

7 inch TFT touch screen

online graph on display



Titration Methods



Additional dosing units can be ordered upto 3



A mouse can also be used for control.



Pen Drive connectivity available.



Ethernet computer port

Model Agile can work as "Stand alone" or through PC



If PC is to be used only for data transfer CFR 21 Part 11 compliant software is available.

If instrument is to be operated through PC, software available, which is also CFR 21 part 11 compliant.



USB port for printer provided for direct printout without using PC. Most of the commonly available printers can be connected.

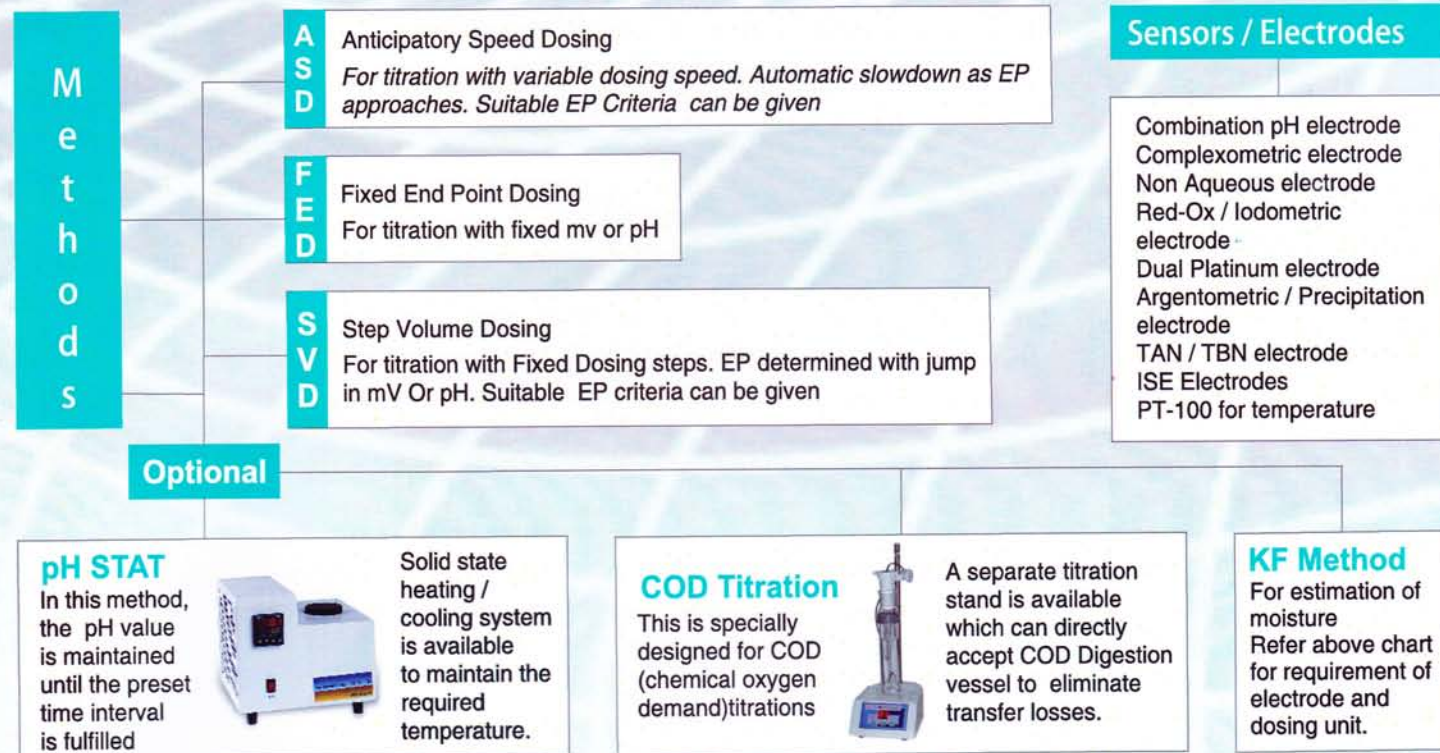
Ordering Information

| Modular Design : Choose the configuration of your choice | Agile non PC operated | Agile PC operated |
|--|--|---|
| Description | Electronics unit + software for Potentiometric titrator + Built in dosing unit + Vessel stand & stirrer assembly + electrode of your choice | Electronics unit + software for Potentiometric titrator & PC through operation. + Built in dosing unit + Vessel stand & stirrer assembly + electrode of your choice |
| CFR 21 Part II software | Order if required | Included |
| Additional Interchangeable Burette Assemblies (with auto burette recognition facility) consisting of : Syringe & piston assembly, Fill / Eject selection valve & associated tubing, position sensors for auto detection. |  Order the quantities as per your requirement | Order the quantities as per your requirement |
| Additional dosing units consisting of : Interchangeable burette assembly, stepper motor burette, valve & driver card |  Order the quantities as per your requirement (Max. 3 units) | Order the quantities as per your requirement (Max. 3 units) |
| KF attachment consisting of : Interchangeable Burette, Dual Platinum Electrode, 50 µl syringe, Magnetic Stirrer, KF Vessel (150 ml), KF Software | Order if required | Order if required |

Model Agile can also be expanded to applications for (Necessary software, electrode & accessories to be ordered.)



Enzymatic Titrations (pH Stat)
COD Titrations
Titration with ION selective electrodes



Specifications

| | |
|---------------------------|--|
| Principle | : Volume determination by equivalence point, end point |
| Control | : Advanced ARM-11 based SOC |
| End Point Detection | : Potentiometric / Voltametric |
| Results Units | : Conc. %w/w, %w/v, ppm, g/L, mg/L, TAN /TBN (mg KOH/g). Universal user defined unit |
| Calculations by | : Selected EP, Largest EP, last EP, EP within specified ml / mV window |
| Report Format | : Single report with graph & signature |
| Report Storage | : 100 document reports can be stored. |
| Cut-off criteria | : (1) Volume (2) End Point (3) mV/pH |
| Mode of Titrations | : Blank, Normality, Sample |
| Methods | : FED, SVD, ASD |
| Method Storage | : 100 user methods can be stored with more than 20 parameters per method. |
| Stirrer System | : High speed vortex stirrer with digital display |
| Stir time | : Selectable for any desired time |
| Sensors | : Electrodes of various types |
| Calibration | : 5 point for pH, 5 point for ISE, 2 point for ORP |
| Burette Resolution | : 1/20000, 1/10000, 1/5000 of burette volume (or 0.001ml for all burettes) |
| Filling time | : < 20 sec. |
| mV range | : ± 2500.00 mV |
| Resolution | : 0.01 mV (0.001 pH) |
| Statistics | : Mean value, SD, RSD & Linearity (online & offline calculation) |
| Input impedance | : $10^{12} \Omega$ |
| Polarizing current | : 2,5,10 micro amps |
| Keys & Display | : 7" TFT |
| Mouse Connectivity | : Optional |
| Peripheral Interface | : USB (3), Rs232, Balance Interface, Parallel Printer, PC connectivity through Ethernet. |
| Power | : 230 V AC $\pm 10\%$, 50 Hz |
| Environmental requirement | : Operation : Indoor, Temperature : ambient to 45°C, Humidity: 5 to 90% non-condensing |
| Dimensions | : 30 cm x 28cm x 17cm |
| Weight | : 9 Kg (Aprox) |

Standards & Compliances

| | |
|-------------------------|-------------------------------|
| CE Marking | CFR Compliance |
| GLP Compliance | IEC, ASTM, APHA, Pharmacopeia |
| Calibration Tracability | Documentation DQ, IQ, OQ & PQ |

Typical Applications

The titrator can be used in many fields for several applications. some of them are mentioned here

Pharmaceuticals And Bio-Chemistry
Enzyme Reactivity, Ketoconazole, Zinc Sulphate Titration

Environment and Water Pollution
P & M Alkalinity, Chloride Content, Ca & Mg Hardness. COD Titration
Alkalinity as CaCO₃, Acid and Base capacity of water
Permanganate Index
Lime content, Chloride content in Soil

Chemical Industries
Evaluation of Gold Number.
Amine value of Silicon oil
Sodium Chloride, Soda Lye, Sulphuric Acid Titrations
Nitrogen content of Nitro cellulose
Cationic surfactant Titrations
Soaps and Anionic surfactant in washing powder
Soap content in Soap Noodles

Dyes And Paints
Sulphate Analysis, Acidity of Dye

Petrochemical Industries
Total & Free Chlorine in Furnace Oil
Saponification value of oil
TAN/TBN as per ASTM.
Mercaptan Sulfur
Bromine Index And Bromine Number
Iodine Value Titration
Hydroxyl number (HN) as per ASTM E 1899-08 and DIN 53240-2

Food & Beverages
Mono Sodium Glutamate Titrations
Vitamin C Titration
Salt content in Food and Fortified products
Ferric Pyrophosphate Titration
Acidity of Jam & Jelly
Iodine content in salt.

Dairy Industries
Acidity of Milk, Chakka, Curd, Cheese & Shrikhand
Free Fatty Acid

Distilleries
Acidity of Rectified Spirit, Alcohol Purity

Cosmetics
Chloride Content in Shampoo, pH

Iron & Steel Industries
Acidity of sand used in castings
Mix Acid analysis (Sulphuric Acid & Nitric Acid)

(Due to continuous R & D, the specification & Dimensions subject to modification.)
(Accessories shown may not be part of standard equipment)