

# PT - 3011

## Potentiometric Titrator



EPCC / PRODUCTS / APPLICATION / SOFTWARE / ACCESSORIES / CONSUMABLES / SERVICES

**Analytical Technologies Limited**

An ISO 9001 Certified Company

[www.analyticalgroup.net](http://www.analyticalgroup.net)

## ►► 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	:	± 3200.00 mV
Resolution	:	0.01 mV (0.001 pH)
Statistics	:	Mean value, SD, RSD & Linearity (online & offline calculation)
Input impedance	:	10 <sup>12</sup> Ω
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 ± 10%, 50 Hz
Environmental	:	Operation : Indoor, Temperature : ambient to 45°C, Humidity: 5 to 90% non-condensing
Dimensions	:	30 cm x 28cm x 17cm

## ►► **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  $\text{CaCO}_3$ , 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

## ►► **OOD & 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

pH Calibration Up to 5 point



Digital Stirrer



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

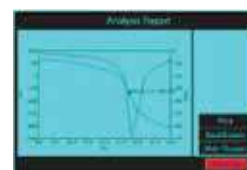
Result Units: Conc. %w/w, %w/v, ppm, g/L, mg/L, TAN /TBN (mg KOH/g). Universal user defined

Aesthetically designed titration

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



Additional dosing units can be



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

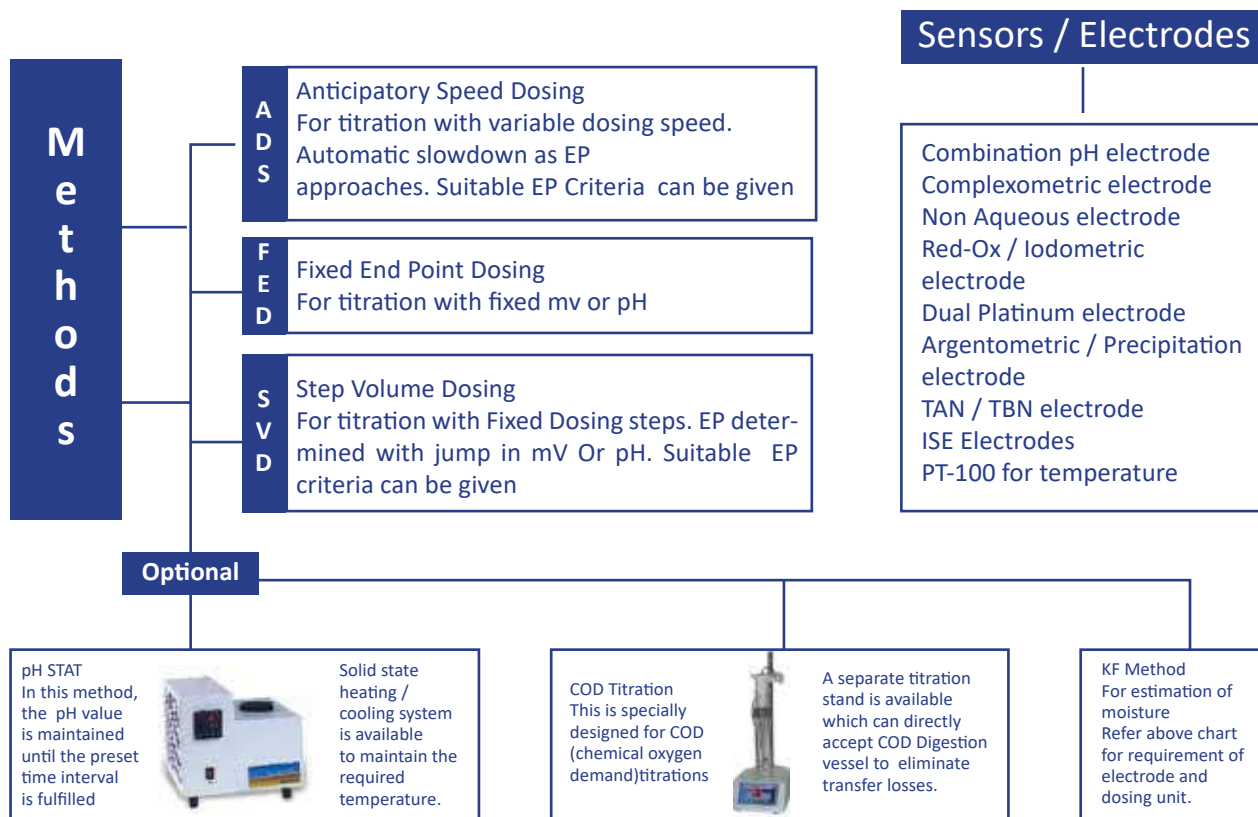
## ►► ORDERING INFORMATION

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
<b>CFR 21 Part II software</b>	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





## HPLC Servicing, Validation, Trainings and Preventive Maintenance :

**HPLC Servicing** :HPLC Servicing : We have team of service engineers who can attend to any make of HPLC promptly @the most affordable cost.

**Trainings** :We also take up preventive Maintenance to reduce downtime of HPLC's Trainings.

**AMC's/CMC** :AMC's/CMC :We offer user training both in-House and at customer sites on HPLC principles, operations, trouble-shooting.

**Validations** :Validations :We have protocols for carrying out periodic Validations as per GLP/GMP/USFDA norms.

**Instruments** :Instruments :We offer instruments/Renting Services Modules like pumps,detector etc. on Rent.



## About Analytical Technologies

Analytical Technologies is synonymous for offering technologies for doing analysis and is the Fastest Growing Global Brand having presence in at least 96 countries across the global. Analytical Technologies Limited is an ISO:9001 Certified Company engaged in Designing, Manufacturing, Marketing & providing Services for the Analytical, Chromatography, Spectroscopy, Bio Technology, Bio Medical, Clinical Diagnostics, Material Science & General Laboratory Instrumentation. Analytical Technologies, India has across the Country operations with at least 4 Regional Offices, 6 Branch Offices & Service Centers. Distributors & Channel partners worldwide.

## Our Products & Technologies



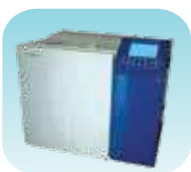
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Double Beam



Infra FTIR



Optima Gas  
Chromatograph  
3007



Optima Gas  
Chromatograph  
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Liquid Particle  
Counter



Optical Emission  
Spectrophotometer



DSC/TGA



Semi Auto Bio  
Chemistry Analyzer



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Analyzer



Micro Plate  
Reader/Washer



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Urine Analyzer



Total Organic  
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PCR/Gradient PCR/  
RTPCR



TOC  
Analyzer



Laser Particle  
Size Analyzer



Ion Chromatograph



Water purification  
system



## Regulatory compliances



## Corporate Social Responsibility

Analytical Foundation is a nonprofit organization (NGO) found for the purpose of:



**Analytical**  
**Foundation**

1. Research & Innovation Scientist's awards/QC Professional Award : Quality life is possible by innovation only and the innovation is possible by research only, hence ANALYTICAL FOUNDATION is committed to identify such personalities for their contributions across various field of Science and Technology and awarding them yearly. To participate for award, send us your details of research / testing / publication at [Info@analyticalfoundation.org](mailto:Info@analyticalfoundation.org)

2. Improving quality of life by offering YOGA Training courses, Work shops/Seminars etc.

3. ANALYTICAL FOUNDATION aims to DETOXYFY human minds,souls and body by means of yoga, Meditation, Ayurveda, Health Care, Awards, Media, Events, Camps etc.



**HPLC Solutions   MultipleLabs   Analytical Bio-Med   Analytical Distributors   Analytical Foundation (Trust)**

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