



PRODUCT CATALOGUE

**Exporter and Manufacturer of :
Analytical, Pharma Lab & Biomedical Equipments**





SALIENT FEATURES

- Stable, direct readout of optical density
- Compact & easy to operate
- Rugged, Sturdy and Reliable
- Thumb Wheel selection of filters
- Pre-Focused light source
- Long Life Photodiode detector
- 1 ml sample size

STANDARD ACCESSORIES:

- A Set of 5 Matched Test Tubes
- Tube Stand
- Dust Cover
- Instruction Manual



DIGITAL PHOTO COLORIMETER

TECHNICAL SPECIFICATIONS

- Range 400 nm to 680 nm
- Optical Filters 8 Filters mounted on the Turret 400nm, 420nm, 480nm, 500nm, 520nm, 540nm, 620nm, 680nm
- Optical Density 0 to 1.99 O.D
- Resolution 0.01 O.D
- Display 2½ Digit Bright Red LED Display
- Light Source LED
- Minimum Volume 1 ml
- Sample System 10 mm path length matched glass test tubes
- Detector Silicon Photodiode/Photocell
- Power Source 230V $\pm$ 10% 50 Hz AC
- Dimensions 225x195x95 mm

DIGITAL AUTO COLORIMETER (LED DISPLAY)

TECHNICAL SPECIFICATIONS

- Range 400 nm to 680 nm
- Optical Filters 8 Filters mounted on the Turret 400nm, 420nm, 480nm, 500nm, 520nm, 540nm, 620nm, 680nm
- Optical Density 0 to 1.99 O.D
- Accuracy $\pm$ 0.02 O.D
- Resolution $\pm$ 0.01 O.D
- Display 3 Digit 7 Segment Bright Red LED Display
- Keyboard Single key, Soft Touch Membrane Type key
- Minimum Volume 1 ml
- Sample System 10 mm path length matched glass test tubes
- Light Source LED
- Detector Photodiode/Photocell
- Warm Up Time 5 minutes
- Power 230 $\pm$ 10%, 50 Hz A.C
- Dimensions 225x210x110 mm

SALIENT FEATURES

- Highly Accurate and Stable
- Direct Readout of Optical Density
- Auto Zero Facility
- Compact & easy to operate
- Soft Touch membrane keys
- 1 ml sample size



SALIENT FEATURES

- Highly Accurate and Stable
- %Transmission and Optical Density Mode
- Auto Zero Facility
- Compact & easy to operate
- Soft Touch membrane keys
- 1 ml

STANDARD ACCESSORIES:

- A Set of 5 Matched Test Tubes
- Tube Stand
- Dust Cover
- Instruction Manual

DIGITAL AUTO COLORIMETER (LCD DISPLAY)

TECHNICAL SPECIFICATIONS

- | | |
|-------------------|--|
| • Range | 400 nm to 680 nm |
| • Optical Filters | 8 Filters mounted on the Turret 400nm, 420nm, 480nm, 500nm, 520nm, 540nm, 620nm, 680nm |
| • Optical Density | 0 to 1.99 O.D |
| • Transmittance | 0-100% |
| • Accuracy | ± 0.02 O.D and $\pm 1\%$ T |
| • Resolution | ± 0.01 O.D, %T:1 |
| • Display | 16x2 lines Alpha Numeric LCD Display with Backlit |
| • Keyboard | Single key, Soft Touch Membrane Type key |
| • Light Source | LED |
| • Minimum Volume | 1 ml |
| • Sample System | 10 mm path length matched glass test tubes |
| • Detector | Photocell / Photo Diode |
| • Warm Up Time | 5 minutes |
| • Power | 230 $\pm$ 10%, 50 Hz A.C |
| • Dimensions | 225x210x110 mm |

DIGITAL AUTOMATIC COLORIMETER

SALIENT FEATURES

- Highly Accurate and Stable
- Auto Zero Facility
- Compact & easy to operate
- Soft Touch membrane keys
- 1 ml sample size
- Microprocessor Based Technology
- Set Wavelength with soft touch keys

TECHNICAL SPECIFICATIONS

- | | |
|----------------------|---|
| • Range | 400-680nm |
| • Filters | Built in 8 Digital Filters-30000 Hours life |
| • Filters Wavelength | 400nm, 420nm, 480nm, 500nm, 520nm, 540nm, 620nm, 680nm |
| • Optical Density | 0 to 1.9V O.D. |
| • Accuracy | ± 0.01 O.D. |
| • Stability | ± 0.02 O.D. Per Hour |
| • Display | Dual Digital Display |
| • Display Mode | Optical Density (O.D.) CWavelength |
| • Detector | Silicone Photo diode |
| • Zero Adjustment | Auto Zero by Soft Touch Membrane Key |
| • Light Source | Highly Accurate Laser Source Amplifier Microprocessor Based |
| • Sample Volume | 1 ml Minimum |
| • Dimension | 230x195x95 mm |
| • Weight | 1.5 Kgs. (Approx.) |
| • Power | 230V $\pm$ 10% AC, 50Hz |





Optional Battery if needed.

SALIENT FEATURES

- High Accuracy and Stable
- Auto Zero Facility
- Compact & easy to operate
- Soft Touch membrane keys
- 1 ml sample size
- Microprocessor Based Technology
- Set Wavelength with soft touch keys

STANDARD ACCESSORIES:

- ^ Set of 5 Matched Test Tubes
- Tube Stand
- Dust Cover
- Instruction Manual



MICRO PROCESSOR FULLY AUTOMATIC COLORIMETER

TECHNICAL SPECIFICATIONS

- | | |
|----------------------|--|
| • Range | 400-800nm |
| • Filters | Built in 8 Digital Filters-30000 Hours life |
| • Filters Wavelength | 400nm, 420nm, 480nm, 500nm, 520nm, 540nm, 620nm, 680nm |
| • Optical Density | 0 to 1.99 O.D. |
| • Accuracy | ±0.01 O.D. |
| • Stability | ±0.02 O.D. Per Hour |
| • Display | 16 x 2 Alphanumeric LCD |
| • Display Mode | Optical Density (O.D.) & Transmission |
| • Detector | Silicone Photo Diode |
| • Zero Adjustment | Auto Zero by Soft Touch Membrane Key |
| • Light Source | Highly Accurate Laser Source |
| • Amplifier | Microprocessor Based |
| • Sample Volume | 1 ml Minimum |
| • Dimension | 230x195x95 mm |
| • Weight | 1.5 Kgs. (Approx.) |
| • Power | 230V ± 10% AC, 50Hz |

DIGITAL NEPHELOMETER

TECHNICAL SPECIFICATIONS:

- | | | |
|--------------------|---|------------------------------------|
| • Range | : | 0 to 19.9 NTU F.S to 199.9 NTU F.S |
| • Accuracy | : | ±2 % F.S ± 1 Digit |
| • Resolution | : | 0.1 NTU |
| • Reproducibility | : | ±1 % |
| • Detector | : | Selenium Photo cell / Photodiode |
| • Calibration | : | With Formazine Solution |
| • Test Tube Holder | : | 30 mm Dia clear glass Test Tube |
| • Power | : | 230V ± 10 % A.C 50 Hz |
| • Dimensions | : | 275 L × 200 B × 105 H mm |

STANDARD ACCESSORIES:

- Test Tube 30mm Dia
- Instruction Manual
- Dust Cover



DIGITAL TURBIDITY METER

TECHNICAL SPECIFICATIONS:

- Range : 0 to 1000 NTU
- Accuracy : $\pm 3\%$ of full scale deflection in 0-1000NTU
- Test Tube System : 30mm clear glass test tube.
- Light Source : 6V.1 Amp. tungsten lamp
- Display : 3.5 digit bright red LED Display
- Detector : Photodiode
- Calibration : With formazine solution
- Power Supply : $230V \pm 10\%$, AC. 50Hz with built-in voltage Stabilizer
- Dimensions : 275L*195W*105Hmm.

STANDARD ACCESSORIES:

- Test Tube 30mm Dia
- Dust Cover
- Instruction Manual



STANDARD ACCESSORIES:

- Test Tube
- Temperature Probe
- Instruction Manual
- Dust Cover
- USB Cable

MICROPROCESSOR BASED TURBIDITY METER

TECHNICAL SPECIFICATIONS:

- Function : Turbidity & temp. simultaneously
- Display : 16 character x2 lines Alphanumeric BL LCD
- Power supply : $230V \pm 10\%$ 50Hz AC

Turbidity

- Range : 0-1000NTU in Two Range
- Resolution : 1 NTU in lowest Range
- Accuracy : $\pm 3\%$ FS ± 1 -Digit
- Range Selection : Automatic
- Detector : Photodiode/photocell
- Sample System : 30mm Clear Glass test Tube
- Calibration : Manual
- Light Source : 6V Tungsten Lamp
- a isplay format : Temp and parameter Simultaneousl y
- Real time Display : 24 hour Mode With Date & Time

Temperature

- Range : -20.0°C to 200°C
- Resolution : 0.1°C
- Accuracy : $\pm 0.1\%$ of range ± 1 digit
- Calibration : Two point manual
- Sensors : Pt 100 probe
- Data Entry : By six soft touch keys with audible sound
- Storage : 1000 samples
- Real time : 24 Hour modes with date
- Interface : RS-232, Centronics & Computer
- Print Format : All Data & Data Wise (Programmable)
- Digital output : Serial Rs-232 Parallel Centronics (Programmable)



STANDARD ACCESSORIES:

- Marking Pen
- Magnifying Lens
- Lens Holder
- Operation Manual
- Dust Cover

MICROPROCESSOR COLONY COUNTER

SALIENT FEATURES

- Readout from 0-999999 Counts
- Count Correction Facility
- 110 mm Dia. Magnifying Lens
- Result Count Storage
- Audible Confirmation of Each Count
- Uniform Glare Free Illumination
- Auto Marker Pen
- Wolffflue Gel Glass Grid with Focusing Facility
- LED Based Illumination

TECHNICAL SPECIFICATIONS:

- Counter 6 Digit Display (upto 999999)
- Correction Count Correction facility available to cancel unwanted counts
- Accuracy 99.9%
- Magnification x 1.7 Surface magnification with 110 mm diameter Magnifying Lens
- Material ABS Plastic Body
- Probe Auto Marker Per probe for marking and counting simultaneously
- Disc Diameter 110 millimeters
- Dimension 255x190X100 mm



DIGITAL COLONY COUNTER

SALIENT FEATURES

- 110 mm Dia. Magnifying Lens
- Audible Confirmation of Each Count
- Uniform Glare Free Illumination
- Readout from 0-9999 Counts (042-G)
- Auto Marker Pen
- Wolfffluegel Glass Grid with Focusing Facility
- LED Based Illumination

TECHNICAL SPECIFICATIONS:

- Display 4 Digit Seven Segment Bright Red LED Display
- Max Count 9999 Set Zero Auto Zero Facility by Soft Touch Membrane Key
- Magnification x 1.7 Surface magnification with 110 mm diameter Magnifying Lens
- Disc Diameter 110 millimeters
- Power 220V $\pm$ 10% AC, 50 Hz Dimension 250x190X110 mm



DIGITAL VISCOMETER

SALIENT FEATURES

- Stepping Motor means Accurate, reliable operation
- Direct readout of all measurement parameters
- Auto Range Showing
- Time Function for measurement
- Sound alarm at under 20% Torque
- Liner calibration
- Wide range power supply: 100V-240V

TECHNICAL SPECIFICATIONS:

· Measuring Range (mPa.s)	20-2,000,00 m.pas
· RPM	(Optional 100 & 200 RPM Model)
· No of standard spindles	#1, #2, #3, #4 is standard configuration, (#0 is for option)
· Measurement Accuracy	1.0% OF range
· Repeatability	± 0.5%
· Display	LCD
· Temp. RTD Monitoring Sensor Probe	Yes
· Output	RS 232 Interface
· Power Supply	AC 220V/50Hz
· Dimension LxWxH	400 x 350 x 360
· Weight	9Kg

TOUCH SCREEN VISCOMETER

SALIENT FEATURES

- Stepping Motor means Accurate, reliable operation
- Direct readout of all measurement parameters
- Auto Range Showing
- Time Function for measurement
- Sound alarm at under 20% Torque
- Liner calibration
- Wide range power supply: 100V-240V

TECHNICAL SPECIFICATIONS:

· Measuring Range (mPa.s)	20-20,00000 m.pas
· RPM	0.3, 0.6, 1.5, 3, 6, 12, 30, 60
· No of standard spindles	#1, #2, #3, #4 is standard configuration, (#0 is for option)
· Measurement Accuracy	1.0% OF range
· Repeatability	± 0.5%
· Display	LCD Touch Screen
· Temp. RTD Monitoring Sensor Probe	Yes
· Output	RS 232 Interface
· Power Supply	AC 220V/50Hz
· Dimension LxWxH	400 x 350 x 360
· Weight	9Kg

Optional Accessories: ~ Low Viscosity Adapter ~ Small Sample Adapter & Refrigerated Circulating Bath



DIGITAL AUTOMATIC POLARIMETER

SALIENT FEATURES

- Automatic Polarimeter instruments used to measure specific optional rotation of optically active substance.
- Measuring optical rotation and sugar degree.
- Storage of three times results
- Built in auto controlling system with servomechanism.
- Calculation of average values
- Automatic Measurements.
- Rs 232 Interface

TECHNICAL SPECIFICATIONS

- | | |
|----------------------------|--|
| • Test MoÇes | Optical rotaí ion, Sugar degree |
| • Light Source | LED |
| • Wavelength | 589.44mm |
| • Measurements | $\pm 45^\circ$ (Optional Rotation) $\pm 120^\circ Z$ (Sugar) |
| • Minimum Indicating Value | 0.001° (Optiç nal rotation) 0.0° I Z (Sugar) |
| • Accuracy | $\pm (0.01 + \text{measurement value} \times 0.05\%)^\circ$
(Optional Rotation) |
| • | $\pm (0.01 + \text{measurement value} \times 0.05\%)^\circ Z$ (Sugar) |
| • Repeatability | $< 0.002^\circ$ (Optical Rotation) |
| • Display | LCD |
| • Test Tube | 200mm, 100ã m |
| • Sample Transmittance | $> 1\%$ |
| • Interface | Rs232 |
| • Operation Voltage | 220V $\pm$ 22V, 50Hz |
| • Overall Dimension | 730mm x 480mm x 470mm |
| • Weight (Grass) | 36Kg |
| • Software | Yes |

STANDARD ACCESSORIES:

- Software Kit: Rs232 Cable, Software CD
- Main Lead
- Fuse
- Instruction Manual

OPTIONAL ACCESSORIES

- Samples tubes 100mm, 200mm



AUTOMATIC TOUCHSCREEN POLARIMETER

SALIENT FEATURES:

- Touch Screen colour display
- Temperature Display
- Need not prewarm when turning on
- Measuring specific rotation optical, rotation, sugar degree and concentration
- Automatic repetition-measurement for 6 times and calculation of average value and means square root.
- Measurement of dark-colored sample.
- USB & RS232.
- Response Time 3% sec.
- Faraday magnet - optical modular.
- Polarizer Polarizing Film.
- Digital Polarimeter based on optical null principle.
- No warm-up time is required when instrument is switched on.
- Insulated sample chamber to keep sample temp. constant.
- Photodiode Detector.
- Purity method-saccharic concentration

TECHNICAL SPECIFICATIONS

- | | |
|----------------------------|---|
| • 4 Test modes | : Optical rotation, specific rotation sugar degree and concentration |
| • Light Source | : LED |
| • Measurement Range | : $\pm 45^{\circ}\text{C}$ (Optical Rotation $\pm 120^{\circ}\text{Z}$ Sugar) |
| • Wavelength | : 589.3nm |
| • Minimum Indication Value | : 0.001° (Optical Rotation) |
| • Accuracy | : a) $\pm 0.01^{\circ}$ ($-15^{\circ} < \text{optical rotation} < +15^{\circ}$)
b) $\pm 0.02^{\circ}$ (optical Rotation $< +15^{\circ}$ or optical $> +15^{\circ}$) |
| • Repeatability | : 0.002° (optical Rotation) |
| • Display | : Color Touch Screen |
| • Test Tube | : 200mm, 100mm |
| • Sample Transmittance | : $> 1\%$ |
| • Interface | : USB & Rs 232 |
| • Operation Voltage | : $220\text{V} \pm 22\text{V}$, 50Hz |
| • Overall Dimensions | : 850mm x 500mm x 470mm |
| • Weight (Gross) | : 38kg |
| • Software | : Yes |

STANDARD ACCESSORIES:

- Software Kit: Rs232 Cable, Software CD
- Main Lead
- Fuse
- Instruction Manual

OPTIONAL ACCESSORIES

- Samples tubes 100mm, 200mm



STANDARD ACCESSORIES:

- Software Kit: Rs232 Cable, Software CD
- Main Lead
- Fuse
- Instruction Manual
- 200mm, 100mm (Regular Tubes), 100mm (Temp. Control Tube)

OPTIONAL ACCESSORIES

- 50mm, 200mm (Temp. Control Tube)

AUTOMATIC TOUCHSCREEN POLARIMETER WITH PELTIER

SALIENT FEATURES:

- Touch screen colour display
- Temperature display
- Faraday magneto-optical modulator
- Polarizer Polarizing film
- Digital Polarimeter based on Optical null principle
- No warm-up time is required when instrument is switched on
- Measuring multiple scales - specific rotation, optical rotation, Sugar degree and concentration
- Automatic repetition-measurement for 6 times, and calculation of average value.
- Measurement of dark-coloured sample
- Response time 3/sec.
- Insulated Sample chamber to keep sample temp. constant
- User can set retesting sample between 1 to 6
- Photodiode Detector
- Data display - date, time, measuring mode, length of tube, temp. test time, measured value (1 - 6 values), average value.
- Purity method - saccharic concentration

TECHNICAL SPECIFICATIONS

- Measurement Mode
- Frequently Used Methods
- Light Source
- Working Wavelength
- Measurement Range
- Minimum Reading
- Accuracy
- Repeatability
- Min. Transmission os samples
- Response Speed
- Measurement Time
- Sample Temperature
- Temperature Control Mode
- Temperature Control Range
- Temperature Control Accuracy
- Display
- Calibration Method
- Data Storage
- GMP Regulations
- Output communications interface
- Weight (Gross)
- Dimensions

Optical Rotation, Specific Rotation, Sugar Degree and Concentration (Custom)
30

Light emitting diode (LED) up to 10.000hours) + precision interference filters

589.4nm (Sodium D Spectrum)

$\pm 90^\circ$ (Optical Rotation) 259° Z Sugar)

0.001°

$\pm 0.004^\circ$

0.002°

0.1% able to be measured

8°/S

6Time/26S

Yes

Peltier (Built-in)

10-50°C

$\pm 0.2^\circ\text{C}$

8-inch color dot matrix touch LCD

Multi - point automatic calibration

10000 sets

No

USB / Printer / U disk

36kg

860mm x 510mm x 470mm



DIGITAL CLINICAL FLAME PHOTOMETER

SALIENT FEATURES:

- Dual 2½ Digit Seven Segment Bright LED display
- Narrow Band Interference Filters
- Dual Channel for Simultaneous Observations of Na & K with Single Aspiration
- Mixing Chamber designed for stable flame
- Stainless Steel Round Burner
- Concentric Non Corrosive Nebulizer
- Auto Ignition

TECHNICAL SPECIFICATIONS

	Serum	URINE
• Range	Na:0-200meq/l 1:100 dil. K:0-100 meq/l 1:100 dil. - Li:0-2meq/l 1:5 dil.	Na:0-250meq/l 1:100 dil. K:0-100 meq/l 1:100 dil. Ca:0-10meq/l 1:2 dil. -
• Sensitivity	Na:5ppm, K:5ppm, Ca:10ppm, Li:10ppm	
• Filters	Na & K supplied (Ca & Li are optional at extra cost) Narrow band interference glass filters	
• Readout	Dual 2 ½ Digit Bright Red LED Display	
• Accuracy	± 2% up to 100meq, 5% above 100meq	
• Repeatability	±2 Counts	
• Ignition System	In-built electronics Ignition by press of switch	
• Measurement	Simultaneous Measurement of 2 elements on dual LED Display	
• System	Silicon photodiode	
• Detector	Adjustable with knobs	
• Gas Control	Black Bakelite, Axial flow type	
• Nebulizer	LPG & dry oil free air	
• Flame System	230V ± 10% AC, 50Hz	
• Power	390 x 250 x 220mm (Approx)	
• Dimensions	8 kg (Approx)	
• Weight		

COMPRESSOR UNIT

• Air Supply	By oil free mini compressor unit with pressure Regulator
• Combustion Gas	LPG control by Precision Regulator
• Power	230V ± 10% AC, 50Hz
• Dimensions	265 x 225 x 110mm (L x B x H) (Approx)
• Weight	6kg (Approx)

ACCESSORIES

• Power Cord	1 Unit
• Air Pipe	1 Unit (Air Tubing with end clamps)
• Gas Pipe	1 Unit
• Waste Water Pipe	1 Unit
• Beaker Box	1 Unit (Contains 5 Beakers)
• Chinmay	1 Unit
• Instruction Manual	1 Unit
• Capillary Pipes	3 Unit



DIGITAL FLAME PHOTOMETER

SALIENT FEATURES:

- 2½ Digit Seven Segment Bright LED display
- Narrow Band Interference Filters
- Single Channel
- Mixing Chamber designed for stable flame
- Stainless Steel round burner
- Concentric Non Corrosive Nebulizer

TECHNICAL SPECIFICATIONS

- | | |
|-------------------|--|
| • Range | Na: 0-100ppm, K: 0-100 ppm, Ca: 15-100ppm, Li: 10-100ppm |
| • Sensitivity | Na: 5ppm, K: 5ppm, Ca: 10ppm, Li: 10ppm |
| • Filters | Na & K supplied (Ca & Li are optional at extra cost)
Narrow band interference glass filters |
| • Readout | 2 ½ Digit Bright Red LED Display |
| • Accuracy | ± 2% up to 100meq, 5% above 40ppm |
| • Repeatability | ± 2 Counts |
| • Ignition System | In-built electronics Ignition by press of switch |
| • Measurement | Measure 1 element at a time system |
| • Detector | Silicon photodiode |
| • Gas Control | Adjustable with knobs |
| • Nebulizer | Black Bakelite, Axial flow type |
| • Flame System | LPG & dry oil free air |
| • Power | 230V ± 10% AC, 50Hz |
| • Dimensions | 390 x 250 x 220mm (Approx) |
| • Weight | 8 kg. (Approx.) |

COMPRESSOR UNIT

- | | |
|------------------|--|
| • Air Supply | By oil free mini compressor unit with pressure Regulator |
| • Combustion Gas | LPG control by Precision Regulator |
| • Power | 230V ± 10% AC, 50Hz |
| • Dimensions | 265 x 225 x 110mm (L x B x H) (Approx) |
| • Weight | 6kg (Approx) |

ACCESSORIES

- | | |
|----------------------|-------------------------------------|
| • Power Cord | 1 Unit |
| • Air Pipe | 1 Unit (Air Tubing with end clamps) |
| • Gas Pipe | 1 Unit |
| • Waste Water Pipe | 1 Unit |
| • Beaker Box | 1 Unit (Contains 5 Beakers) |
| • Chinmay | 1 Unit |
| • Instruction Manual | 1 Unit |
| • Capillary Pipes | 3 Unit |





MICROPROCESSOR BASED FLAME PHOTOMETER

SALIENT FEATURES:

- Microprocessor Based with Printer Interface
- Auto Gas Cutoff Facility
- Auto Flame Failure Detection
- Five Measurements in Single Aspiration of the sample
- Calibration Curve Programmability Using Maximum of 25 Standard
- Data Processing Through Curve Fitting Techniques -Least Squares, Quadratic
- Multiple Calibration Curves Saving Facility
- Printer Attachment Facility
- Measurement can be done in ppm as well as in meq
- Setup Storage Facility (up to 10 setup files)
- Sample Data Storage Facility
- Direct Results in ppm and meq.
- Online Help key
- Useful for both Medical & Soil Testing Applications

ACCESSORIES

- Power Cord 1 Unit
- Air Pipe 1 Unit (Air Tubing with and clamps)
- Gas Pie 1 Unit
- Waste Water 1 Unit
- Beaker Box 1 Unit (Contains 5 Beakers)
- Chimney 1 Unit
- Instruction Manual 1 Unit
- Capillary Pipes 3 Unit

COMPRESSOR UNIT

- Air Supply By oil free mini compressor unit with pressure regulator
- Combustion Gas LPG controlled by precision regulator
- Power 230V 10%AC, 50Hz
- Dimensions 285x255x210mm(LxBxH)(Approx)
- Weight 7.5 Kg. (Approx)

TECHNICAL SPECIFICATIONS

Mode	General			
	ppm	meq/l	Serum(in meq/l)	Urine (inmeq/l)
• Range	Na: 0-100 K: 0-100 Ca: 0-100 Li: 0-100 Ba: 50-1000	Upto250meq/l, 1:100dil. Upto250meq/l, 1:100dil. Upto250meq/l, 1:100dil.	1:100dil.0-200 1:100 dil 0-200 1:100 dil - 0-21:5dil -	0-250 1:100 dil. 0-250 1:100 dil. 1-10 1:2dil -
• Sensitivity	General: Na: 0.5 ppm, K:0.5ppm, Li:0.5ppm, Ca:1.5ppm, Ba: 50ppm			
• Filters	Na & K supplied (Ca, Li and Ba are extra Cost) (Ba can be factory fitted only)			
• Resolution	0.1ppm/0.1meq			
• Reproducibility	< 1% coefficient of variation for 20 consecutive samples using 10 ppm Na set as maximum standard			
• Linearity	<2% error when 3ppm Na/K and 5ppm Li are set as maximum standard			
• Curve Fit Accuracy	<2% of FS			
• Display	128x64 Alphanumeric LCD with backlit			
• Average Time	In-built in software			
• Flame System	LPG and Dry Oil Free Air			
• Detector	Silicon Photodiode			
• Calibration	With up to 25 Standard of Use Choice with Curve Fitting Software (5 for Each Element) Multiple Calibration Curves can be stored in the memory			
• Gas Control	Adjustable with knobs			
• Flame Failure	Automatic			
• Ignition System	Auto Ignition			
• Atomizer	Axial flow type			
• Printer	Provision for attachment of Dot Matrix Printer or HP Laser Jet/inkjet (non-window) printers with USB interface			
• Power	230V 10%AC, 50Hz			
• Dimensions	285x255x210mm(LxBxH)(Approx)			
• Weight	7.5 Kg. (Approx)			



SALIENT FEATURES

- Auto Titration Control
- Separate Control & Titration Units
- Auto Zero Burette
- Adjustable Timer
- Visual & Audible Alarm

ACCESSORIES

Burette (Clear Glass) 10 ml * Reservoir Bottle 500 ml, Moisture trap with rubber bellow for air pumping, Titration Cell, Dual Platinum Electrode, Solenoid Valve Assembly, Magnetic Capsule, Set of 2 Clamps, Rubber Tubing, Nozzle, Instruction Manual



SALIENT FEATURES

- Motorized dispensing of KF Reagent (No Glass Burette)
- Digital display of KF consumed with readability of 0.01 ml
- Easy calibration of dispensing pump by front panel keys
- Memory for recording KF consumed
- Inbuilt magnetic stirrer with variable speed
- Programmable delay time and buzzer on time
- Motorized reagent washing from tubing after analysis
- Rs232 port for serial printer attachment
- KF Back Flush after Analysis
- Error Message
- Data Storage (KF Consumed)
- Printer Interface
- Standard Supply

AUTO KARL FISCHER TITRIMETER

TECHNICAL SPECIFICATIONS

Control Unit

Display	Array of 10 LEDs
Timer	Adjustable Timer
Buzzer	Yes
Sample Size	1 -50 mg of Water
K.F. Dispensing Resolution	0.05 ml
Measuring Electrode	Dual Platinum Electrode
Indications	RUN}, ADD } Display in Auto Mode END}
Detection	Current sensing by electronic control
Dimension	L340 X B250 X H125 mm. (Approx.)
Weight	2 KG.
Titration Unit	
Titration Cell	Air Tight 200 ml.
Stirrer	Variable speed magnetic stirrer with On/Off control
K.F. Flow	Automatic Sensitive Control Valve for KF Reagent
Burette	Pressure filling auto zero burette with 0.05 ml resolution
Power	230V AC $\pm$ 10% 50Hz, AC
Dimension	L325 X B180 X H98 mm. (Approx.)
Weight	3 KG.

MICROPROCESSOR SEMI AUTO KARL FISCHER

TECHNICAL SPECIFICATIONS

• Measuring Method	Karl Fischer titration method
• KF Dispensing	Highly sensitive motorized dispensing
• Display	2x16 character LCD
• Volume Display & Range	Digital 00.00ml to 99.99ml
• Minimum Volume Readability	0.01 ml
• End Point Detection	Automatic with dual platinum sensor
• End Point Indication	Display & Audible alarm
• Function Keys	Soft touch 6 keys
• Stirrer	Inbuilt magnetic stirrer with variable speed
• KF Back Flush after Analysis	Yes, Motorized
• Error Message	Yes for bad sample or reagent
• Data Storage (KF Consumed)	Yes with date & Time
• Printer Interface	Yes, Rs232 for serial printer attachment
• Standard Supply	Dual Platinum sensor, Reagent bottles with adapters, Titration bottle, Magnetic Rotor, Set of Dispensing tubes, Set of connecting tube



MICROPROCESSOR KARL FISCHER MOISTURE TITRATOR

TECHNICAL SPECIFICATIONS

- Measuring Range 10 ppm to 999999 ppm, 0% to 100% of moisture
- Measuring Method Karl Fischer Volumetric / Colorimeter Titration Method
- KF Dispensing System Highly sensitive motorized dispensing system
- Resolution of Titrant Volume 0.01 ml
- Indication of Titrant Volume 0.00 to 99.99 ml
- Auto Moisture Content Calculation 0.00% to 100% 10 to 999999 ppm 0.00 to 999.99 ppm
- Calibration Auto KF Titer/Factor Calculation
- End Point Indication Audio
- Utilization Environmental Temp. 5-40°C Humidity : $\pm 85\%$
- Wait Time for End Point Adjustable 1 to 99 seconds
- Keypad 20 Keys
- Display 128 x 64 Graphical LCD
- Data Storage 1000 Sample
- PC Connection Compatibility USB Hyper Terminal
- Clock In built clock with date & time display
- Stirrer In built magnetic stirrer with adjustable speed
- Reagent Bottles 250ml bottles for KF Reagent, methanol & calcium chloride
- Printer Interface Dot matrix printer interface
- Power Supply 12V/2A DC Supply

STANDARD ACCESSORIES

- Dual Platinum Electrode
- 250ml Bottle KF Reagent
- 250ml Bottle for Calcium Chloride
- 25ml Auto Pipette
- Adapter for KF Reagent Bottle
- Set of dispensing tubes & nozzles
- Power Supply adapter
- Instruction Manual
- Teflon coated magnetic stirring capsule
- 250ml Bottle for Methanol
- Reagent Outer
- Adapter of calcium chloride bottle
- Set of connecting tubes
- Titration Vessel
- Rubber Bellow
- Dust Cover



DIGITAL AUTO MELTING POINT APPARATUS (Sample Fill and Forget)

GENERAL INTRODUCTION

Digital auto melting point apparatus (microprocessor based) is an unique instruments for measuring Melting Point of the substance. The use of C-MOS LSI technology makes the instruments versatile and reliable. Digital display with automatic polarity indication and decimal positioning eliminates for measuring Melting allows measuring with accuracy and excellent resolution. The indication of temperature in °C

SAMPLE FILL AND FORGET MODEL

Special feature: All the selection of programing is fully protected from Power Failure including "HOLD" action of Melting temperatures till the "RE-SULT" is not operated. Once the start action will be initiated, it will reach to find out the melting point of sample, even multiple time power failure. Therefore, it is advised to operate the "RE-SULT" switch before going to start the experiment; otherwise the instruments will consider the power failure situation.

TECHNICAL SPECIFICATION

- | | |
|------------------------|---|
| • Number of samples | 1 samples at a time |
| • Temperature range | Ambient to 350°C |
| • Temperature accuracy | ±1° at 20°C |
| • Temperature | ±2.5°C at 300°C |
| • Temperature Sensor | Platinum resistance PT 100 |
| • Display | 4 Digit seven segment LED. |
| • Keyboard | Soft touch membrane keys. |
| • Status | LED's stop, ready to start, run hold and low-high and auto. |
| • Power | AC 230V±10%,50Hz |
| • Weight | 8.5kg(approx.) |
| • Accessories | Capillaries' tube, operation manual, cleaning rod. |

ADVANTAGE

- Easy to operate.
- 4 Digit seven segment Led Display.
- Programmable plateau temperature.
- Quick cooling with integrated fan.
- Audio- visual indicator for system status.



DIGITAL MELTING / BOILING POINT APPARATUS

SALIENT FEATURES

- Covered cylindrical Silicon Oil Bath for for Safety of operator.
- Built-in Magnetic Stirrer with electronic speed controller.
- Electronic Controller for adjusting the heating rate.
- Digital Display of Temperature with PT-100 Sensor.
- Glare-free back-ground LED light with adjustable light Intensity.
- Provision for holding the melting point display when sample melts.
- Built-in image magnifier for clear for clear vision of sample.

TECHNICAL SPECIFICATION

- | | |
|-------------------------|-------------------------|
| • Temperature Range | 2° above RT-300°C |
| • Readability | 1°C |
| • Display Type | 3 Digit LED |
| • Display Parameter | Temperature |
| • Inbuilt Stirrer | Yes |
| • Heating Rate Control | Electronic |
| • Stirrer Speed Control | Electronic |
| • Temperature Sensor | PT-100 |
| • Back-ground Light | Yes, Variable Intensity |
| • Hold Facility | Yes |

STANDARD ACCESSORIES

- Magnetic Capsule
- Oil Jar
- Heating Assembly
- Silicon Oil (250ml)
- Set of 100 Capillary
- Temperature Probe
- Instruction Manual
- Dust Cover



MICROPROCESSOR MELTING AND BOILING POINT APPARATUS WITH CAMERA

STANDARD ACCESSORIES

- Box of Capillaries
- Glass Tubes for Liquid Sample (6x75mm)-2Nos.
- Magnetic Capsule
- Bottle of Silicon Oil-250ml
- Glass Cylindrical Beaker with Teflon cover fitted with immersion heater
- Instruction Manual Dust Cover

TECHNICAL SPECIFICATIONS

- Display 128 x 64 Graphical LCD Display
- Temperature 0 to 300 Degree Celsius
- Temperature Resolution 0.1 degree Celsius
- Calibration Using Software
- Amount of sample Fine power properly dried at a temperature considerably below its melting point 4 to 6mm high
- Oil Bath Silicon Oil bath beaker 200ml capacity with Teflon cover fitted with Oil immersion heater and having three holes for holding the capillaries one for boiling point tube and one for temperature Sensor
- Power $230 \pm 10\%V$ AC, 50Hz
- Storage 1000 Samples result with date, samples number and batch number
- Data output Through USB Port
- Sample Display Facility to display stored sample results
- Batch Facility to enter batch number while storing the results
- Stirrer ON/OFF Using key
- Stirrer Speed Controllable Using Stirrer Keys
- Stirrer Indication Stirrer on icon appears on the screen when the stirrer is ON. When is off no icon comes
- Modes Three heating Modes-Slow Mode, Normal Mode and Rapid Mode
- Sample Type Selection for samples whose melting point is known
- Camera HD camera to view capillaries
- Display 7" HD Display



ACCESSORIES:

- Conductivity Cell (Dip Type)
- Operational Manual
- Dust Cover
- Conductivity Electrode Stand

DIGITAL CONDUCTIVITY METER

TECHNICAL SPECIFICATIONS:

- | | |
|----------------------------|--|
| · RANGE | Mhos 200 Micro Mhoms /cm to 1000 Mhoms/cm in 5 range |
| · ACCURACY | ±03% F.S. 200 Micro Mhoms to 200M Mliums/cm. ±1% F.S.in last |
| · Range | 1000 Mhoms/cm. |
| · RESOLUTION | 0.1Mhos Micro Mhoms/cm. |
| · MEASURING FREQUENCY | 1000 HZ. |
| · TEMPERATURE COMPENSATION | 0 to 50°C. |
| · CELL CONSTANT | 0.4 to 1.6 adjustable |
| · FUNCTION SELECTOR | CHECK/COND./CELL CONST. |
| · CAL | For full scale adj.(at backplane) Function selector at CHECK Position. |
| · DIGITAL DISPLAY | 3.5 digit LED display |
| · POWER SUPPLY | 220 ±10% V AC, 50 Hz |
| · DIMENSIONS | L275*B 175 * H 75 mm |
| · WEIGHT | 2 kg. |



DIGITAL TDS METER

TECHNICAL SPECIFICATIONS

- | | |
|---------------------|------------------------------------|
| · Range | 5 Ranges 0 to 1000 pt. |
| · Display | 3 1/2 digit LED Display |
| · Accuracy | ±2FS ±A Digit |
| · Resolution | 0.01 ppm |
| · Temp Compensation | 0°C to 50° C maunal |
| · Cell Constant | Adjustable on Display Platinum Dip |
| · Power | 230V±10%50Hz |
| · Dimensions | 275x175x75mm |
| · Weight | 2kg(zpprox) |

STANDARD ACCESSORIES:

- TDS Cell (Dip Type)
- Operational Manual
- Dust Cover
- TDS Cell Stand



DIGITAL pH METER

TECHNICAL SPECIFICATIONS

General

- Parameter pH and mV
- Display 3.5 Digit LED
- Power supply 230 $\pm$ 10%AC,,50Hz
- Setting By Precision Regulators
- Dimensions 76mm (H) x 275MM (w) X 175MM (D)
- Weight 2 kgms.(Approx.)
- Operating Temperature 10.00To +50.00°C

pH

- Range 0 to 14 pH
- Temp. Comp 0-100°C
- Resolution 0.01pH
- Accuracy ± 0.01 pH ± 1 digit

mV(ORP)

- Range 0 to ± 1999.9 mV
- Resolution 1mV
- Accuracy ± 0.1 mV ± 1 Digit
- Calibration MANUAL

STANDARD ACCESSORIES

- Combination pH Electrode
- Electrode Stand And Clamp
- Temperature Probe (In Atc Model)
- Buffer Tablets/Bottles (4pH/7pH)
- Dust Cover
- Instruction Manual.

DIGITAL POTENTIOMETER

TECHNICAL SPECIFICATIONS

- Range 0 to 199.9mV, 0 to 1999mV
- Resolution 0.1mV
- Repeatability 1mV
- Accuracy 1 mV ± 1 Digit
- Input Impedance >1010ohms
- Operating Temperature 10°C to 50°C
- Display 3.5 Digit Bright Seven Segment LED display with auto polarity indication
- Power 230 10% AC, 50Hz
- Dimensions 76*275*170mm(Approx.)
- Weight 2 kg.(Approx)

STANDARD ACCESSORIES:

- Glass Electrode 01 NO.
- Reference Electrode 01 NO.
- Silver Electrode (Optional) 01 NO.
- Platinum Electrode (Optional) 01 NO.
- Dust Cover 01 NO.
- Electrode Stand & Clamp 01 NO.
- Installation 01 NO.



DIGITAL PHOTO FLUOROMETER

SALIENT FEATURES

- 3 Digit LED Display
- Covers entire visible range
- Determines the concentration of Fluorophores & Quinine

TECHNICAL SPECIFICATIONS

- | | |
|----------------------|---|
| • Fluoro Sensitivity | Full scale deflection obtained with 1ppm quinine in 0.01 N Sulphate acid (primary wavelength 360nm) |
| • Display | 3 Digit Bright Red Seven Segment LED Display |
| • Excitation Range | 12V, 50W Tungsten Halogen Lamp |
| • Sensitivity Range | Adjustable in 4 ranges |
| • Primary Filters | Corning 5840 (360nm) and Corning 5113 (405nm) Cell mounted on holders |
| • Secondary Filters | Corning 4308 (465nm), Corning 3486 (650nm) |
| • Detector | Highly sensitive wide range photodiode /cell |
| • Sample Test Tube | 15mm (D) x 80mm (H) |
| • Minimum Sample | 4m |
| • Power | 230V $\pm$ 10%, 50Hz AC |
| • Weight | 5 kg. (Approx.) |
| • Test Tube | A set of 5 |

STANDARD ACCESSORIES

- Primary and Secondary Filters: A set of 5
- Test Tube : A set of 5



STANDARD ACCESSORIES:

- Power Cable
- User Manual
- Fuse Kit
- Dust Cover

DRY BATH INCUBATOR

SALIENT FEATURES

- Highly Stable & Accurate
- Overheat Protection
- Available with Buzzer Alarm

TECHNICAL SPECIFICATIONS

- Temperature Range Ambient ± 5 to 70 Degree Celsius
- Temperature Accuracy $\pm 1^{\circ}\text{C}$
- Timer Range 1 to 99 minutes
- Temp Sensor Pt100
- Temp Controller PID
- Display 16 x 2 Alphanumeric LCD Display
- Block Size 24 x 12 mm Test Tubes or Customizable
- Block Material Solid Aluminum Block
- Power 230V $\pm 10\%$, 50Hz AC



MICROPROCESSOR HEMOGLOBIN METER

TECHNICAL SPECIFICATIONS

- Memory In Built Memory to retain last "k" factor for concentration even after power loss
- Light Source 6.8V, 0.3AMP Tungsten lamp
- Amplifier Micro Controller Based
- Sample Volume 1 ml, Minimum
- Display 3 Digit Red LED Display / 16x2 Alphanumeric LCD Display
- Display Modes %T, O.D. and 3 Concentration Modes
- Stability ± 0.02 O.D, Per Hour
- Zero Setting Automatic
- Accuracy ± 0.02 O.D
- Power Supply 230V $\pm 10\%$ 50Hz AC

STANDARD ACCESSORIES

- Glass test tubes 05 No.
- Test Tube Stand 1 No.
- Dust Cover 1 No.
- Instruction Manual 1 No.



STANDARD ACCESSORIES:

- Thin Standard Film
- Software CD
- USB Cable
- User Manual
- Tool Kit
- Dust Cover

FT-IR SPECTROMETER

SALIENT FEATURES

- Highly Stable & Accurate
- Highly Sensitive IR Source
- Wide Sample Compartment
- Plug & Plug Operation
- Automatic Wavelength Setting & Scanning

TECHNICAL SPECIFICATIONS

- | | |
|-------------------------|--|
| • Spectral Range | 7800 to 350 cm^{-1} |
| • Resolution | Better than 0.85 cm^{-1}
Better than 0.85 cm^{-1} |
| • Wavelength Precision | $\pm 0.01 \text{ cm}$ |
| • Scanning Speed | 5-step adjustable for different applications |
| • Signal to noise ratio | Better than 15000:1 (RMS value, at 2100 cm^{-1} ,
Resolution: 4 cm^{-1} , Detector: DTG,
1 Minute data collection |
| • Beam Splitter | Ge-coated kbr |
| • Infrared Source | Air-cooled, High efficiency Reflex Sphere Module |
| • Detector | DTGS |
| • Data System | Compatible computer |
| • Software | FT-IR software contains all routine needed for basic
spectrometer operations, including libraries search,
quantization and spectrum export |
| • IR Library | 11 IR libraries included |
| • Dimensions | 54x52x26 cm |
| • Weight | 28 Kg |

OPTIONAL ACCESSORIES:

- Hydraulic Press
- Mortar & Pestle
- KBr Set for Pellets
- Pellet Holder
- ATR
- ATR Crystal
- Universal Liquid Cell Holder



MICROPROCESSOR BASED EC-TDS-SALINITY TEMP. METER

TECHNICAL SPECIFICATIONS GENERAL

• Parameters	EC (Cond.), TDS, Salinity and Temperature
• Display	16 x 2 lines Alphanumeric LCD display with backlit
• Key Board	8 soft touch membrane type keys
• Power supply	230V $\pm$ 10% AC, 50 Hz.
• Storage	Up to 1000 samples, storage in data memory
• Printer Attachment	Provision for attachment of Centronics dot matrix printer
• Display Format	Temp. & Cond./EC, Temp. & TDS, Temp & Sal. Simultaneously in Read Mode Setting By Soft Touch Keys
• Interface	Serial RS232 Port and Parallel Centronics Port
• Error Indication	Temperature Probe Error
• Print Format	All Data wise

STANDARD ACCESSORIES

• Conductivity/TDS/Salinity Cell with Cell Constant of approx. 1.0	1 No.
• Temperature Probe	1 No.
• Dust Cover	1 No.
• Instruction Manual	1 No.
• Conductivity Cell stand with clamp	1 No.

PARAMETERS EC (Conductivity)

• Range	0 20, 0 200 μ S 0-2, 0-20, 0-200mS
• Range Selection	Automatic
• Accuracy	$\pm$ 0.5% F.S. $\pm$ 1 digit
• Resolution	0.01 μ S
• Cell Constant	Adjustable (0.05-10.5)
• Temperature Coefficient	0-50° C (Auto/Manual)
• Temperature Compensation	Adjustable (0.1-4.0%)
• Reference Temperature	25° C

Salinity

• Range	0 20, 0 200 μ S 0-2, 0-20, 0-50ppt
• Range Selection	Automatic
• Accuracy	$\pm$ 1% F.S. $\pm$ 1 digit
• Resolution	0.01ppm
• Cell Constant	Adjustable (0.05-10.5)
• Temperature Coefficient	0-50° C (Auto/Manual)
• Temperature Compensation	Adjustable (0.1-4.0%)
• Reference Temperature	25° C
• Temperature	
• Range	0 to 100.0°C
• Resolution	0.1°C
• Accuracy	$\pm$ 0.1°C
• Sensor	Semi Conductor Type
• Calibration	Automatic



MICROPROCESSOR BASED EC-TDS-TEMP. METER

TECHNICAL SPECIFICATIONS

- Parameters EC (Cond.), TDS, Salinity and Temperature
- Display 16 x 2 lines Alphanumeric LCD display with backlit
- Key Board 8 soft touch membrane type keys
- Power supply 230V $\pm$ 10% AC, 50 Hz.
- Storage Up to 1000 samples, storage in data memory
- Printer Attachment Provision for attachment of Centronics dot matrix printer
- Display Format Temp. & Cond./EC, Temp. & TDS, Temp & Sal. Simultaneously in Read Mode Setting By Soft Touch Keys
- Interface Serial RS232 Port and Parallel Centronics Port
- Error Indication Temperature Probe Error
- Print Format All Data wise

PARAMETERS

- Range 0 20, 0 200 μ S 0-2, 0-20, 0-200mS
- Range Selection Automatic
- Accuracy $\pm$ 0.5% F.S. $\pm$ 1 digit
- Resolution 0.01 μ S
- Cell Constant Adjustable (0.05-10.5)
- Temperature Coefficient 0-50° C (Auto/Manual)
- Temperature Compensation Adjustable (0.1-4.0%)
- Reference Temperature 25° C

TDS

- Range 0 20, 0 200 μ S 0-2, 0-20, 0-200mS
- Range Selection Automatic
- Accuracy $\pm$ 0.5% F.S. $\pm$ 1 digit
- Resolution 0.01 μ S
- Cell Constant Adjustable (0.05-10.5)
- Temperature Coefficient 0-50° C (Auto/Manual)
- Temperature Compensation Adjustable (0.1-4.0%)
- Reference Temperature 25° C

TEMPERATURE

- Range 0 to 100.0° C
- Selection 0.1° C
- Accuracy $\pm$ 0.1° C
- Sensor Semi-Conductor Type

STANDARD ACCESSORIES

- Conductivity/TDS/Salinity Cell with Cell Constant of approx. 1.0 1 No.
- Temperature Probe 1 No.
- Dust Cover 1 No.
- Instruction Manual 1 No.
- Conductivity Cell stand with clamp 1 No.



MICROPROCESSOR pH-COND-TDS-TEMP. METER

TECHNICAL SPECIFICATIONS

- Parameters pH (Cond.), TDS and Temperature
- Display 16 x 2 lines Alphanumeric LCD display with backlit
- Key Board 8 soft touch membrane type keys
- Power supply 230V $\pm$ 10% AC, 50 Hz.
- Storage Up to 1000 samples, storage in data memory
- Printer Attachment Provision for attachment of Centronics dot matrix printer
- Display Format Temp. & Cond./EC, Temp. & TDS, Temp & Sal. Simultaneously in Read Mode Setting By Soft Touch Keys
- Interface Serial RS232 Port and Parallel Centronics Port
- Error Indication pH Error, Buffer, Temperature Probe Error
- Print Format All Data-wise

STANDARD ACCESSORIES

- Combination pH Electrode 1 No.
- Conductivity/TDS/Salinity Cell with Cell Constant of approx. 1.0 1 No.
- Temperature Probe 1 No.
- Dust Cover 1 No.
- Instruction Manual 1 No.
- Conductivity Cell stand with clamp 1 No.

PARAMETERS

- Range 0.14pH
- Accuracy 0.01pH $\pm$ 1 digit
- Resolution 0.01 pH
- Temperature Compensation 0-100°C (Auto/Manual)
- Auto Buffer Recognition 4.00, 700pH

TEMPERATURE

- Range 0 to 100.0°C
- Selection 0.1°C
- Accuracy $\pm$ 0.1°C
- Sensor Semi-Conductor Type
- Calibration Automatic

EC/CONDUCTIVITY

- Range 0 20, 0 200 μ S 0-2, 0-20, 0-200mS
- Range Selection Automatic
- Accuracy $\pm$ 0.5% F.S. $\pm$ 1 digit
- Resolution 0.01 μ S
- Cell Constant Adjustable (0.05-10.5)
- Temperature Coefficient Adjustable (0.1-4.0%)
- Temperature Compensation 0-50° C (Auto/Manual)
- Reference Temperature 25° C

TDS

- Range 0 20, 0 200 μ S 0-2, 0-20, 0-200mS
- Range Selection Automatic
- Accuracy $\pm$ 0.5% F.S. $\pm$ 1 digit
- Resolution 0.01 μ S
- Cell Constant Adjustable (0.05-10.5)
- Temperature Coefficient Adjustable (0.1-4.0%)
- Temperature Compensation 0-50° C (Auto/Manual)
- Reference Temperature 25° C



PORTABLE pH METER

TECHNICAL SPECIFICATIONS

- Display 3½ Digit LCD Display
 - Power supply 9V DC Battery operated
 - Setting By Precision Regulators
 - Weight 750 gms. (Approx.)
 - Impedance $>10^{12}$ ohms
 - Operating Temperature 10.00 to 50.00°C
- pH**
- Range 0 to 14pH
 - Resolution 0.01pH
 - Accuracy $\pm 0.01\text{pH} \pm 1$ digit
 - Slope Adjustment 80% to 120%, By Default 100%
 - Input Impedance >10 (power 13) ohms

STANDARD ACCESSORIES

- Combination pH Electrode 1 No.
- Instruction Manual 1 No
- Buffer Capsules (4.00, 7.00pH) 1 No.
- Battery 1 No.



MICROPROCESSOR pH-mV-TEMP. METER

TECHNICAL SPECIFICATIONS

- Parameters pH, mV and Temperature
- Display 16 x 2 lines Alphanumeric LCD display with backlit
- Key Board 6 soft touch membrane type keys
- Power supply 230V $\pm$ 10% AC, 50 Hz.
- Setting By Soft Touch Keys
- Interface Serial RS-232 Port

PARAMETERS

pH

- Range 0.00 to 14.00 pH
- Resolution 0.01 pH
- Relative Stability ± 0.002 pH/Hour
- Accuracy ± 0.02 pH ± 1 digit
- Temperature Compensation 0-100°C (Auto/Manual) Automatic with Temp Probe & Manual By Keys
- Auto Buffer Recognition 4.00, 7.00, 9.20 & 12.450 pH
- Acceptable Electrode Slope 70% to 130%
- Calibration Auto/Manual (2Point/3-Point)

mV (ORP)

- Range 0 to +1999.9mV
- Selection 0.1mV & 0.01mV
- Accuracy ± 0.1 mV ± 1 Digit
- Calibration Manual

TEMPERATURE

- Range 0 to 100.0°C
- Selection 0.1°C
- Accuracy ± 0.1 °C
- Sensor Semi-Conductor Type
- Calibration Automatic

STANDARD ACCESSORIES

- Combination pH Electrode 1 No.
- Temperature Probe 1 No.
- Dust Cover 1 No.
- Instruction Manual 1 No.
- Electrode Stand 1 No.
- Buffer Capsules 1 No.
(4.00, 7.00, 9.20pH)



MICROPROCESSOR BASED COND-TDS-SAL. TEMP. METER

TECHNICAL SPECIFICATION

Function	Cond & Temp, TDS & Temp, SAL & Temp. Simultaneously
Display	16 Character x 2 lines Alpha numeric LCD Display
Power supply	230V 10% 50Hz AC
Conductivity- TDS-SAL	
Range	Cond 0.00us/cm to 10000mS in 6-Auto ranges TDS 0.00ppm to 500 ppm in 5-Auto ranges
Resolution	Cond 0.01/0.1/1 us/cm or mS/cm as per range
Accuracy	0.5% of range 1 digit
TDS Factor	0.50 (By default) & adjustable manually
SAL Factor	0.75 (By default) & adjustable manually
Cell Const. Adjustment	Digital 0.05 to 2.000 By default 1.000
Temp. Compensation	0 to 70deg C Auto with temp. Probe/Manual with keys
Temp Coefficient	adj 0.00% to 4.00% adjustable By default, 2.00%
Calibration	Manual
Reference Temp.	20 Degree C & 25 Degree C (selection)
Measuring Frequency	100 Hz & 1KHz Auto Selection
Temperature	
Range	0 degree C to +100 degree C
Resolution	0.1 degree. C
Accuracy	0.1 % of range 1 digit
Calibration	Two point manual
Sensors	Pt 100 probe
Data entry	By six soft touch keys with audible sound
Storage	1000 samples
Real time display	24 Hours mode with Date
Interface	RS-232
Print format	All Data Date wise

STANDARD ACCESSORIES

- Conductivity/TDS/Salinity Cell with Cell Constant of approx. 1.0 1 No.
- Temperature Probe 1 No. 1 No.
- Dust Cover 1 No.
- Instruction Manual 1 No.
- Conductivity Cell stand with clamp 1 No.



MICROPROCESSOR DISSOLVED OXYGEN METER

TECHNICAL SPECIFICATIONS

GENERAL

Parameters	: Dissolved oxygen and Temperature
Display	: 16 x 2 lines Alphanumeric LCD Display with Backlit
Key Board	: 6 soft touch membrane type keys
Power supply	: 230V $\pm$ 10% AC, 50 Hz.
Storage	: Up to 999 samples, storage in data memory
Setting	: By Soft Touch Keys
Interface	: Serial RS-232 Port

PARAMETERS

- Dissolved Oxygen (D.O)
- Range : 0-20 ppm
- Range Selection : Automatic
- Accuracy : $\pm$ 0.2 ppm
- Resolution : 0.1 ppm
- Temperature Compensation : 0-50° C (Auto/Manual)
- Temperature Coefficient : Automatic
- Reference Temperature : 25° C

TEMPERATURE

- Range : 0 to 100.0°C
- Resolution : 0.1°C
- Accuracy : $\pm$ 0.1°C
- Sensor : PT100 Sensor
- Calibration : Automatic



STANDARD ACCESSORIES

- Dissolved Oxygen Probe 1 No.
- Dissolved Oxygen Membranes 1 No.
- Temperature Probe 1 No.
- Instruction Manual 1 No.
- Dust Cover 1 No.
- DO Probe stand with clamp 1 No.
- Main Lead 1 No.



FLUORESCENCE SPECTROPHOTOMETER

SALIENT FEATURES

- Two mode could be chosen Fluorescence intensity and luminous intensity Fluorescence scanning, Kinetic determination and quantity analysis could be done under fluorescence intensity mode.
- 365nm exciting wavelength Raman peak of water in 1cm quartz fluorescence cuvette S/N 150 High performance sensitivity simplifies the measurement the measurement of low detectable sample.
- High Stable and long life 150W xenon lamp and power source ensure high stable testing and wide range of spectrum.
- The normalized features for fluorescence value could make different fluorescence's result comparable.
- Optional accessories for different measurement, including single holder fluorescence sample.

SPECIFICATIONS

• Light Source	Hamamatsu 150W Xenon lamp
• Exciting optional filters	Interference optical filter
• Emission monochromator	C-T diffraction grating
• Emission wavelength	200 900nm
• Emission bandwidth	10nm
• Sensitivity	S/N>150(P-P)
• Linear	0.995
• Stability	better than 1.5%/10min
• Power	220V 22V 50Hz 1 Hz
• Response Time	(0.1-4)s 6 Stage adjustable
• Fluorescence display value	0.00-600.00
• Data transmission	USB2.0



FLUORESCENCE SPECTROPHOTOMETER

SPECIFICATIONS



- Excitation light source High brightness LED
- Excitation LED 250nm-600nm(600(LED)EX wavelength standard set:365nm,376nm,392nm,405nm
- Emission monochromator C-T configuration different gratin monochromator Emission wavelength range (EM):200nm-650nm. Bandwidth: 10nm Extended the monochromator to Em 200-900 is optional) Emission wavelength accuracy: 1nm
- S/N ratio S/N 90 (Using 1cm quartz sample cell, measurement the singal noise ratio of Rahman spectrum of water)
- Detector limit 1x10-10g ml quinine sulphate solution
- Linearity 0.995
- Repetitive peak intensity 1.5%
- Zero Drift 0.3(within 10min)Upper limit change of Indication value 1.5%(Within 10 minutes) display value 50)
- Power Type 220V 22V, 110V, 22V
- Dimensions 442X392X250(mm)
- Weight Net weight 10Kg Gross weight 12kg.



SINGLE BEAM ATOMIC ABSORPTION SPECTROMETER

TECHNICAL SPECIFICATIONS

- Instrument Type Single Beam Reflection Achromatic Optical System
- Monochromator Aberration Corrected Czerny-Turner
- Dispersion elements Grating system 1200 line characterization area 40mm² Scintillation wavelength 250nm
- Bandwidth 0.1, 0.2, 0.4, 1 nm (4 step auto switching)
- WL. Range 190-900
- WL. Accuracy 0.2
- WL. Repeatability 0.1 nm max
- Resolution Min 3 lines (279.5 & 279.8 peak and Valley)
- HCL housing Standard 4 lamp turret 1 for measurement . 3 in warm up mode)

OPTIONAL ACCESSORIES:

Graphic Furnace
Auto-sampler for Graphite Furnace
Hydride Generator
Wide range of Hollow -Cathode lamps
(Single/Multi Element) available on request

- Gas control Automatic control & optimization (flow/pressure)
- Safety measurement Gas Leak check, prevention of gas release when flame dies out Prevention of flashback through pressure monitoring.
- Measurement Aberration- corrected Czerny - Turner mounting
- Photometric Range 0-125%, - 0. 1-3. 00A
- Static Baseline Drift (Cu)- 0.003A/30min
- Dynamic Baseline Drift (Cu) - 0.006A/30min
- Background Correction High speed self- reversal (BGC-SR) method: High speed D2 lamp method (BGC-D2)
- Characteristic (CU) 0.025 ug/ml max Concentration
- Detection limit (CU) 0.004 ug/ml max
- Precision RDS = 0.5%
- Burner Air cooled Titanium
- Nebulizer High efficient Nebulizer
- Spray chamber Anti corrosion material
- Safety chamber Flame fuel gas, power assisted gas abnormal pressure protection
- Test Manner Flame, flame emission
- Concentration standard curve, standard addition, interpolation
- Times of repetitive Measurement 1-30 times, average value of A & C
- Report Print parameters, date result
- Dimension & Weight (flame) 700X420X550MM: 103 kg (approx.)



DIGITAL ABBE REFRACTOMETER

SALIENT FEATURES

- Characteristics Measurement of the refractive index nD of transparent liquid and solid substances.
- Measurement of the Brix of sugar solution
- Visual aim and LCD Display
- Automatic correction the effect of temperature on the Brix
- Prism made of hard glass.
- RS.232

MEASUREMENT MODES

- Refractive Index
- Brix of sugar Solution
- Brix TC of sugar Solution
- Automatic detect temp shown in display

TECHNICAL SPECIFICATIONS

- Measurement range nD 1.30000-1.70000
- Measurement Accuracy Brix: 0.0001%
- Measurement Resolution 0.0001
- Temperature Range 0-50degC
- Weight(Gross) 12kg
- Overall Dimensions 370mmx240x470mm

STANDARD ACCESSORIES

- Calibration standard 1 NO.
- Hex key 1 NO.
- Lamps 6.3V, 0.25A 3 NO.
- Fuses 1A 3 NO.
- RS-232 Cable 1 NO.
- Software CD Manual 1 NO.
- Main Lead 1 NO.
- Operating Manual 1 NO.
- Dust Cover 1 NO.



ELISA MICRO PLATE READER

TECHNICAL SPECIFICATIONS



SALIENT FEATURES

- Window based operating system with 8 Colour touch Screen LCD
- 8 channel optical Fibre Photometer with automatic well centering & positioning
- Fastest in segment take < Sec to read absorbance for 96 well
- Single, Dual & Multi reading option
- Long Life Halogen lamp with Lamp Saver features
- Inbuilt shaking function with variable speed & time adjustment
- Test Data can export to export to Excel & PDF for further analysis

Plate Types: 96well plates

Mode: U,V and Flat bottom wells

Operating Modes:

Absorbance

Quantitative

Qualitative

Semi-Quantitative

Kinetic Mode

Measurement Modes:

Continuous /Step

Shaking Modes:

Adjustable Speed-Low, Medium and Fast

Adjustable Time Duration

Wavelength Selection

Monochromatic,

Bi-Chromatic

Multi-Charomatic

Calculation Subtraction

Cut-Off

Column Substraction

Linear Regression

Point To Point

Software

Cubic Spline

Linear Regression

Blank Optics

Single & Multiple Well

Row & Column Blank

Number of Standard:

Up to 10 standard/test

Test Programs:

300"open" Test Programs

Test Result Memory: 1,00,000

Photometer

Measuring system: 8-channel optical system

Lamp Source: Tungsten Halogen with Lamp

saver function

Wave Length Range: 400 to 800nm

Standard Filters

4 Filter Modes: 405, 450, 492 & 630nm

6 Filter Modes: 405, 450, 492, 578, 630 & 700

Measurement Range: 0.0-450 OD

Photometric accuracy: <1% at 2.5 OD at 450

Repeatability: 0.1%

Photometric Resolution: 0.0001A

Linearity $\pm 0.5\%$

Measurement Time:

03 5 Seconds Single wavelength

08 Seconds Dual wavelength

Display: 8" Colour Touch Screen LCD Display

Keyboard: On/Display & External

PC Communication: Serial RS232/USB

Printer: External Printer

Interfacing Software: Window Based Internal

Interfacing: 2 USB, IRS232, VGA, I LAN

Reports:

Customissable Report Format

Report Transfer to PDF & Excel format

Operating Temperature: 0 to 40°C

Storage temperature: 10 to 50°C

Humidity: Max. 80%RH, non- condensing

Power Supply

8V DC using external SMPS adapter

115/230V Ac10%, 50/60Hz

Dimension: 525x420x260mm

Weight: 9Kg.



ADVANCED NANO SPECTROPHOTOMETER

TECHNICAL SPECIFICATIONS

Wavelength Range	200-800nm
Sample Size	0.5-2.ul
Path Length	0.2mm (For high concentration measurement) 1.0mm (Ordinary concentration)
Light Source	Xenon flesh lamp
Detector Type	3865-element liner silicon CCD aaray
Wavelength Accuracy	1nm
Spectral Resolution	<3nm (FWHM at Hg 546nm)
Absorbance Precision	0.003Abs
Absorbance Accuracy	1%(7.332Abs at 260nm)
Absorbance Range	0.2-100A
Detection Range	10-5000ng/ul(dsDNA)
Measurement Time	<6s
Dimensions (WxDxH) mm	210x268x181
Data Output	USB, SD-RAM Card
Weight	2.8kg
Sample Pedestal Material	Aluminum alloy and Quartz fiber
Operating Voltage	24VDC
Operating Power Consumption	40W
Standby Power Consumption	5W
Software Compatibility	Android System OD 600nm Measurement:
Light Source	LED
Wavelength Range	6008nm
Absorbance Range	0-4A

STANDARD ACCESSORIES

Glass Cells	:4No.
Quartz Cell	: 2 Nos.
Instrument Cover	: 1 No.
Software Cover	: 1 No.
Software CD	; 1 No.
USB Cable	: 1 No.
Operational Manual	: 1 No.
Software Manual	: 1 No.
Software Key	: 1 No.

ACCESSORIES

Cuvette 10mm 2 pcs
Adaptor



ADVANCED NANO SPECTROPHOTOMETER

SALIENT FETURES

- 7 inch touch screen with simple interface.No computer required.
- Android operating system with free software update.
- Only require 0.5-2ul sample to perform accurate measurements
- Long life's Xenon flash lamp for up to 10 years
- Flexible data output.The data can be printed with built-in printer,and output via USB memory stick
- OD 600 measurement,ideal for bacterial concentration measurement.
- Direct micro-volume measurement with 0.5-ul of sample. Eliminates the need for expensive accessories
- Wide range of wavelength (200-800nm)
- Turn on and instantly measure without lamp warm up time: Full scan capability from 200-800nm with 6 sec.
- Switch off automatically when the machine is idle for more than 5 mins,and awake by touching the screen



TECHNICAL SPECIFICATIONS

Wavelength Range	200~800nm
Sample Size	0.5~2.0ul
Path Length	0.2mm (For high concentration measurement) 1.0mm (Ordinary concentration)
Light Source	Xenon flash lamp
Detector Type	3864-element linear silicon CCD array
Wavelength Accuracy	1nm
Spectral Resolution	≤3nm (FWHM at Hg 546nm)
Absorbance Precision	0.003Abs
Absorbance Accuracy	1% (7.332Abs at 260nm)
Absorbance Range	0.02 - 100A
Detection Range	10~5000ng/ul (dsDNA)
Measurement Time	<6s
Dimensions (W x D x H)mm	210 x 268 x 181
Data Output	USB, SD-RAM Card
Weight	2.8kg
Sample Pedestal Material	Aluminum alloy and Quartz fiber
Operating Voltage	24VDC
Operating Power Consumption	40W
Standby Power Consumption	5W
Software Compatibility	Android System
OD600nm Measurement:	
Light Source	LED
Wavelength Range	600±8nm
Abosorbance Range	0~4A

STANDARD ACCESSORIES

Cuvette 10mm 2 pcs
Adapter



MICROPROCESSOR UV-VIS DOUBLE BEAM SPECTROPHOTOMETER WITH BLUETOOTH

SALIENT FEATURES

- Double beam optical System
- Low noise and Low stray light
- High quality grating, detector and lamps
- Data and Curve can be stored in real-time
- Auto Setting WL, auto Blank
- Lamps can be turned on/off individually
- Easy to change Pre-aligned lamps
- Reinforced baseboard and bracket assure durability

FUNCTION

- Photometric: T%, Abs
- Quantitative: Standard Curve
- System Utility
- WL Scan (Spectrum Scan)
- Time Scan (Kinetics)
- DNA/Protein Test

TECHNICAL SPECIFICATIONS

- Model : GSI-2702
- Wavelength Range : 190-1100nm
- Spectral Bandwidth : 1nm
- Optical System : Double Beam, Blazed Holographic Grating : 01200lines/nm)
- Wavelength Accuracy : 0.5nm
- Wavelength Repeatability : <0.2nm
- Wavelength Setting : Auto, Resolution .1nm
- Photometric Range 0-200%T, -4-4A, 0-9999C
- Photometric Accuracy $\pm 0.002A(0-0.5A)$, $\pm 0.003A(0.5-1A)$, $\pm 0.3\%T(0-100\%T)$
- Repeatability $\pm 0.001A(0-0.5A)$, $\pm 0.003A(0.5-1A)$, $\pm 0.2\%T(0-100\%T)$
- Stray Light <0.5%T(220/360nm)
- Scan Speed High, Medium, Low. Ma. 2000nm/Minute
- Baseline Flatness $\pm 0.0015A$
- Stability $\pm 0.001A/h$ (500nm, 0A)
- Noise <0.2%T/3Min (250/500nm, 0%T); <0.5%T/3min (250/500nm, 100%T)
- Sample Compartment 10mm Pathlength Cuvette
- Detector Silicon Photodiode
- Lamps Tungsten Lamps & Deuterium Lamp(Pre-aligned)
- Output Port USB Port
- Printer Mini Serial Printer; PC Printer
- PC Software UV Analysis Scanning Software
- Power Requirement AC 90-250V, 50/60Hz
- Dimension 545x468x245mm
- Weight 18kg



STANDARD ACCESSORIES

- Glass Cells : 4Nos.
- Quartz Cell : 2 Nos.
- Instrument Cover : 1 No.
- Software Cover : 1 No.
- Software CD : 1 No.
- USB Cable : 1 No.
- Operational Manual : 1 No.
- Software Manual : 1 No.
- Software Key : 1 No.



MICROPROCESSOR UV-VIS DOUBLE BEAM SPECTROPHOTOMETER

SALIENT FEATURES

- Double beam optical System
- Low noise and Low stray light
- High quality grating, detector and lamps
- Data and Curve can be stored in real-time
- Auto Setting WL, auto Blank
- Lamps can be turned on/off individually
- Easy to change Pre-aligned lamps
- Reinforced baseboard and bracket assure durability

TECHNICAL SPECIFICATIONS

Model	: GSI-2704
Wavelength Range	: 190-1100nm
Spectral Bandwidth	: 1nm
Optical System	: Double Beam, Blazed Holographic Grating : 01200lines/nm)
Wavelength Accuracy	: 0.5nm
Wavelength Repeatability	: <0.2nm
Wavelength Setting	: Auto, Resolution . 1nm
Photometric Range	: 0-200%T, -4-4A, 0-9999C
Photometric Accuracy	: ±0.002A(0-0.5A), ±0.003A(0.5-1A), ±0.3%T(0-100%T)
Repeatability	: ±0.001A(0-0.5A), ±0.003A(0.5-1A), ±0.2%T(0-100%T)
Stray Light	: <0.5%T(220/360nm)
Scan Speed	: High, Medium, Low. Ma. 2000nm/Minute
Baseline Flatness	: ±0.0015A
Stability	: ±0.001A/h (500nm, 0A)
Noise	: <0.2%T/3Min (250/500nm, 0%T); <0.5%T/3min (250/500nm, 100%T)
Sample Compartment	: 10mm Pathlength Cuvette
Detector	: Silicon Photodiode
Lamps	: Tungsten Lamps & Deuterium Lamp(Pre-aligned)
Output Port	: USB Port
Printer	: Mini Serial Printer; PC Printer
PC Software	: UV Analysis Scanning Software
Power Requirement	: AC 90-250V, 50/60Hz
Dimension	: 545x468x245mm
Weight	: 18kg

FUNCTION

Photometric:T%,Abs
Quantitative:Standard Curve
System Utility
WL Scan (Spectrum Scan)
Time Scan(Kinetics)
DNA/Protein Test

STANDARD ACCESSORIES

Glass Cells	:4No.
Quartz Cell	: 2 Nos.
Instrument Cover	: 1 No.
Software Cover	: 1 No.
Software CD	:1 No.
USB Cable	:1 No.
Operational Manual	:1 No.
Software Manual	:1 No.
Software Key	:1 No.



MICROPROCESSOR UV-VIS DOUBLE BEAM XENON FLASH LAMP SPECTROPHOTOMETER

SALIENT FEATURES

- High Quantity flashing xenon Lamp which can start to test directly without preheating.
- Power full functions like Photometric measurement. Quantitative measurement, Kinetics Spectrum Scan, DNA/Protein test, Multi -wavelength test etc.
- In-house massive memory is capable of saving up to 1024M for Test data & working curves.
- Support USB Storage. The USB port can be used for data transfer, which is easily exported to excel for further processing analysis and storage.
- Large sample chamber can accommodate 5-100mm cuvettes of all kinds Provide at extra cost.
- Extensive accessories are optional, such as auto 8-cell holder, perrier/sipper system, 21 CRR complaint software software provide at extra cost. etc.
- Auto wavelength setting.
- On -screen standard kinetic curve display.
- Tungsten/Deuterium Lamp can be turned ON/OFF individual to extend lifetime.



TECHNICAL SPECIFICATIONS

Optical System	Double Beam, Grating 1200lines/mm
Wavelength Range	190nm-1100nm
Spectral Bandwidth	1nm
Wavelength Accuracy	$\pm 0.1\text{nm}@656.1\text{nm} \pm 0.3\text{nm}@all$
Wavelength Repeatability	$< 0.1\text{nm}$
Photometric Accuracy	$0.2\%T (0-100\%T) \pm 0.002A (0-0.5A) \pm 0.004A (0.5-1A)$
Photometric Repeatability	$< 0.15\%T, (0-100\%T) 0.001A (0-0.5A) 0.002A (0.5-1A)$
Photometric Range	$0-200\%T, 0.3-3A, 0-9999C (0-9999F)$
Stray Light	$< 0.03\%T@220\text{nm}, 360\text{nm}$
Stability	$\pm 0.0005A/h@500\text{nm}$
Baseline Flatness	$\pm 0.001A$
Noise	$0.0005A@500\text{nm}$
Work Mode	T%, Abs, Conc, Reflectance, E
Scanning Speed	HI, Med, Low (Max. 3000nm/min)
Wavelength Setting	Auto
Display	7" TFT Color Screen
Light Source	Imported Xenon Lamp
Detector	Imported Silicon Photodiode
Output	USB drive, USB host RS. 232
power	AC 220V/50Hz or AC 110V60Hz
Shipping Size	810x660x390mm
Gross Weight	27kg

STANDARD ACCESSORIES

Glass Cells	:	4No.
Quartz Cell	:	2 Nos.
Instrument Cover	:	1 No.
Software Cover	:	1 No.
Software CD	:	1 No.
USB Cable	:	1 No.
Operational Manual	:	1 No.
Software Manual	:	1 No.
Software Key	:	1 No.



TOUCH SCREEN DOUBLE EAM UV-VIS SPECTROPHOTOMETER

SALIENT FEATURES

- Double beam optical System
- 8-Inch colour touch-screen
- Automatic zero and full scale adjustment
- Equipped with USB COM Port
- UVWIN 8 Spectrum Data Processing Software optional
- Thermal plotter optional



TECHNICAL SPECIFICATIONS

Photometry	Double Beam
Monochromator Type	Czerny-Turner
Focal Length	160mm
Grating	1200lines/mm
Detector	Silicon Photocell
Spectrum Bandwidth	1nm
Wavelength Setting	8-inch color touch-screen
Wavelength Range	190-1100nm
Wavelength Accuracy	±0.5nm
Wavelength Repeatability	<0.2nm
Scanning Speed	Fast, Medium, Slow
Stray Light	<0.3%T (at 220nm NaI, 360nm Na No2
Photometric Range	0.0-2000% -0.301-4.000A 0.000-9999C
Photometric Accuracy	0.3%T 0.002Abs (0-0.5A) 0.004Abs (0.5-1A)
Photometric Repeatability	<0.15%T 0.001Abs (0-0.5A) 0.002Abs (0.5-1A)
Baseline	<±0.002A (200-1090nm)
Noise	100% (T) noise<0.15%, (T), 0% (T) noise 0.1% (T)
Drifting	<0.0009Abs/30min (250nm and 500nm after 2 h warm up)
Power	AC220V±22V 50Hz± 1Hz, 200W
Packing Size	740mm x 630mm x 450mm 0.21M ³ 35Kg

STANDARD ACCESSORIES

Operation Manual	1
Quartz Cuvette 1cm	2 pcs
Power Cable	1
Fuse	2 pcs

OPTIONAL ACCESSORIES

UVWIN 8 Spectrum data processing thermal plotter



SINGLE BEAM MICROPROCESSOR UV-VIS SPECTROPHOTOMETER WITH SOFTWARE

TECHNICAL SPECIFICATIONS

Model	GSI-285
Optical System	CT Grating monochromator
Wavelength Range	195nm-1020nm
Wavelength Accuracy	+/-2nm
Spectral bandwidth	2nm
Wavelength repeatability	1nm
Stray light	<=0.3% T @220nm
Photometric Accuracy	+/-0.5%T
Photometric Repeatability	0.2%T
Stability	+/-0.004A/h@500nm
Work Pattern	T, A, C
Display Area	0-200%T, 0.3-3A
Display Modes	4 LCD
Zero setting	automatic
Weight	12kg



STANDARD ACCESSORIES

Glass Cells	:4No.
Quartz Cell	:1 No.
Instrument Cover	:1 No.
Software Cover	:1 No.
Software CD	:1 No.
USB Cable	:1 No.
Operational Manual	:1 No.
Software Manual	:1 No.
Software Key	:1 No.

ADVANCED SINGLE BEAM MICROPROCESSOR UV-VIS SPECTROPHOTOMETER WITH SCANNING SOFTWARE

TECHNICAL SPECIFICATIONS

Optional System	Single-Beam Grating
Wavelength Range	190-10000nm
Bandwidth	2nm
Wavelength Accuracy	± 1nm
Wavelength Repeatability	0.5nm
Wavelength Accuracy	Auto
Photometric Accuracy	±0.5%T
Photometric Repeatability	0.3%T
Photometric Range	-0.3-3A, /h 0-200%T
Stray Light	<0.3%T
Stability	±0.0002A/h@500nm
Display	128*64 Dots LCD
Detector	Silicon Photodiode
Standard Cell Holder	4-position 10-100mm cell chaner
Light Source	Tungsten & Deuterium lamp
Output	USB Port & Parallel port (Printer)
Power Requirements	AC 85-250V
Dimension	420x280x180mm
Weight	20kg



SALIENT FETURES

- Large LCD Screen (128*64) Dots.
- Can Display and save 50 groups of data, 5 groups per screen.
- Data can be restored after a sudden power cut.
- Auto setting Wavelength.
- Tungsten lamp & deuterium lamp can be turned on/off individually to extend lifetime.
- Automatic WL. Calibration and dark current getting. With Scanning.



MICROPROCESSOR UV-VIS SINGLE BEAM UV-VIS SPECTROPHOTOMETER WITH SCANNING SOFTWARE

SALIENT FEATURES

1. Unique optical system, 1200 lines/mm grating and imported receiver to ensure its sound performance.
 2. The instrument has PC connectivity software expands the capabilities of the instrument includes Photometric analysis, Quantitative analysis, Spectral scanning, Kinetics, DNA/protein analysis, Multi-wavelength test, etc.
 3. Adopts 51 microcomputer system, and store 200 test data and 100 standard curves.
 4. Plug type deuterium lamp and tungsten lamp transfer light without optics debugging.
- Cell Holder: 50mm cell holder 4 position with Scanning Software

TECHNICAL SPECIFICATIONS

Optional System	Single-Beam Grating 1200 lines/mm
Wavelength Range	190-1000nm
Bandwidth	2nm
Wavelength Accuracy	1nm
Wavelength Repeatability	$\leq 0.2\text{nm}$
Photometric Accuracy	0.5%T
Photometric Repeatability	0.2%T
Photometric Range	0-200%, -0.3-3A
Stray Light	0.15%T
Stability	$\pm 0.0002\text{A/h@}500\text{nm}$
Baseline Flatness	$\pm 0.0002\text{A}$
Noise	$\pm 0.001\text{A}$
Wavelength Setting	Auto
Light Source	Imported Deuterium & Tungsten Lamp
Display	128*64 LCD
Detector	Important Silicon Photodiode
Output	USB Port & Parallel port (Printer)
Power	AC 250V/50Hz; AC 110V/60Hz
Dimension	590*460*220
Net Weight	16kg
Shipping Size	700*580*340mm
Weight	20kg



STANDARD ACCESSORIES

Glass Cells	: 4No.
Quartz Cell	: 2 Nos.
Instrument Cover	: 1 No.
Software Cover	: 1 No.
Software CD	: 1 No.
USB Cable	: 1 No.
Operational Manual	: 1 No.
Software Manual	: 1 No.
Software Key	: 1 No.



MICROPROCESSOR SINGLE BEAM VISIBLE SPECTROPHOTOMETER WITH SOFTWARE

TECHNICAL SPECIFICATIONS

· Optional System	CT-Single Beam Grating 1200lines/mm
· Wavelength Range	320-1020nm
· Spectral Bandwidth	2nm
· Wavelength Accuracy	1nm
· Wavelength Repeatability	±2nm
· Wavelength Accuracy	<1nm
· Photometric Accuracy	±1%T
· Photometric Repeatability	0.5%T
· Stray Light	0-1.999A, 0-199.9%T
· Stability	<0.3%T @340nm
· Display	4 LCD
· Photometric Mode	T.A.C
· Detector	Si Photodiode
· Light Source	Tungsten lamp
· Power Requirements	AC(20v/50Hz)
· Dimension	(WxDxH) 450x520x320mm
· Weight	10kg
· Output	RS-2



STANDARD ACCESSORIES

Main Instrument	:1 units
Operation Manual	:1 No.
Power cable	:1 No.
Glass Cell 10mm	:4 No.
Software CD	:1 No.
RS 232 Cable	:1 No.



DOUBLE BEAM SPECTROPHOTOMETER XENON FLASH LAMP

INTRODUCTION

- High quality flashing xenon lamp which can start to test directly without preheating.
- Powerful functions like Photometric measurement, Quantitative measurement, Kinetics, Spectrum Scan, DNA/Protein test, Test-wavelength
- In-House massive memory is capable of saving up to 1024M for test data & working curves.
- Supports USB storage, The USB port can be used for data transfer, which is easily exported to excel for further processing, analysis and etc.
- Large Sample chamber can accommodate 5-100mm cuvette of all kinds. Provide at Extra Cost.
- Extensive accessories are optional, such as peltier/transfer system 2CRR compliant software, Provide at Extra Cost.
- Auto Wavelength Setting
- On-Screen Standard Kinetic Curve Display
- Tungsten/Deuterium Lamp can be Turned ON/OFF Individually to Extend Lifetime.

TECHNICAL SPECIFICATIONS

Optical System	Double Beam, Grating 1200lines/mm
Wavelength Range	190nm-1100nm
Spectral Bandwidth	1nm
Wavelength Accuracy	$\pm 0.1\text{nm}@656.1\text{nm} \pm 0.3\text{nm}@all$
Wavelength Repeatability	$< 0.1\text{nm}$
Photometric Accuracy	$0.2\%T (0-100\%T) \pm 0.002A (0-0.5A) \pm 0.004A (0.5-1A)$
Photometric Repeatability	$< 0.15\%T, (0-100\%T) 0.001A (0-0.5A) 0.002A (0.5-1A)$
Photometric Range	$0-200\%T, 0.3-3A, 0-9999C (0-9999F)$
Stray Light	$< 0.03\%T @ 220\text{nm}, 360\text{nm}$
Stability	$\pm 0.0003A/h @ 500\text{nm}$
Baseline Flatness	$\pm 0.001A$
Noise	$0.0005A @ 500\text{nm}$
Work Mode	T%, Abs, Conc, Reflectance, E
Scanning Speed	HI, Med, Low (Max. 3000nm/min)
Wavelength Setting	Auto
Display	10.1" TFT Colored Capacity Touch Screen
Light Source	Imported Xenon Lamp
Detector	Imported Silicon Photodiode
Cuvette Holder	10mm drive, USB host, RS 232
Output	USB drive, USB host RS. 232
power	AC 220V/50Hz or AC 110V/60Hz
Shipping Size	810*660*390mm
Gross Weight	27kg

STANDARD ACCESSORIES

Glass Cells	: 4No.
Quartz Cell	: 2Nos.
Instrument Cover	: 1 No.
Software Cover	: 1 No.
Software CD	: 1 No.
USB Cable	: 1 No.
Operational Manual	: 1 No.
Software Manual	: 1 No.
Software Key	: 1 No.



PELTIER/SIPPER SYSTEM

TECHNICAL SPECIFICATIONS

- The valid temperature range is from 15°C to 65°C
- The valid sampling time range is from 30s to 10min
- The valid peristaltic pump speed range is from 1 to 12
- The sampling speed is about 50ml/min.
- Power supply is 220±22V@50±1Hz or 110±11V@60±1Hz.

STANDARD ACCESSORIES

- Control Unit.
- Cell holder with Peltier System. (Its already pre-loaded into the compartment of the spectrophotometer)
- Control Cable (to connect the Control Unit with the Cell holder with Peltier System).
- Peristaltic pump pipe. (It already Pre-loaded into the pump value of the Control Unit)
- Power Cord.





AAS PLUS TOMIC ABSORPTION SPECTROPHOTOMETER



TECHNICAL SPECIFICATIONS



MICROPROCESSOR UV-VIS DOUBLE BEAM SPECTROPHOTOMETER EXCLUSIVE MODEL (VARIABLE BANDWIDTH)



SILENT FEATURES

- Double beam ensure low drift, low stray light high speed MCU, high precision , AD Large
- storage capacity Large LCD Display (320*240Dots)
- 1.0nm or variable Bandwidth meet Pharmacopeia.
- Data and Curve can be stored in real-time
- Online software upgrade capacity
- Lamps Can be turned on/off individually.
- Easy to change Pri-aligned lamps

TECHNICAL SPECIFICATIONS

- Wavelength Range : 190-1100nm
- Spectral Bandwidth : 0.5/1/1.5/4/5nm Variable
- Optical System : Double Beam, Blazed Holographic Grating : 01200lines/nm)
- Wavelength Accuracy : 0.5nm
- Wavelength Repeatability : <0.2nm
- Wavelength Setting : Auto, Resolution .1nm
- Photometric Range : 0-200%T, -4-4A, 0-9999C
- Photometric Accuracy : $\pm 0.002A(0-0.5A)$, $\pm 0.003A(0.5-1A)$, $\pm 0.3\%T(0-100\%T)$
- Photometric Repeatability : $\pm 0.001A(0-0.5A)$, $\pm 0.003A(0.5-1A)$, $\pm 0.2\%T(0-100\%T)$
- Stray Light : $<0.5\%T(220/360nm)$
- Scan Speed : High, Medium, Low. Ma. 2000nm/Minute
- Baseline Flatness : $\pm 0.0015A$
- Stability : $\pm 0.001A/h(500nm, 0A)$
- Noise : $<0.2\%T/3Min(250/500nm, 0\%T)$; $<0.5\%T/3min(250/500nm, 100\%T)$
- Sample Compartment : 10mm Pathlength Cuvette
- Detector : Silicon Photodiode
- Lamps : Tungsten Lamps & Deuterium Lamp(Pre-aligned)
- Display : Graphic LCD (320*240Dots)
- Keyboard : 30-Key Alphanumeric Membrane Keypad
- Output Port : USB Port
- Printer : Mini Serial Printer; PC Printer
- PC Software : PC Scanning Software
- Power Requirement : AC 90-250V, 50/60Hz
- Dimension : 635x515x255
- Weight : 26kg

FUNCTION

- Photometric
- Quantitative (Standard Curve)
- WL Scan (Kinetics)
- Time Scan (Kinetics)
- DNA/Protein Test
- Multi-WL Test
- System Utility

- Glass Cells : 4No.
- Quartz Cell : 2 Nos.
- Instrument Cover : 1 No.
- Software Cover : 1 No.
- Software CD : 1 No.
- USB Cable : 1 No.
- Operational Manual : 1 No.
- Software Manual : 1 No.
- Software Key : 1 No.

heating up
cooling



GRADIENT THERMAL CYLER PCR Touch Screen

SILENT FEATURES

- Excellent amplification due to high quality Semiconductor
- Industrial grade operation system, can work 7x24hs
- 30°C gradient range, ideal for protocol optimization
- 5-inch touch screen, easy to edit, operate, save programs
- Data saved to USB flash memory
- Impact design, small size
- Extremely quiet
- High precise temperature with good uniformity, quick heating up and cooling down benefit from advanced thermoelectric cooling and PID technologies

TECHNICAL SPECIFICATIONS

Temp. Control Ways	Block or Tube
Block Temperature Range	4~99.9°C
Block Temperature Accuracy	±0.2° C
Block Temperature Uniformity	±0.25° C
Heating Up Rate(average)	3°C
Cooling Down Rate(average)	2.5° C
Max. Heating Rate	4.5° C/S
Max. Cooling Rate	4.0° C/S
Gradient	Max. 30°C
Gradient Temp. Accuracy	±0.3°C
Block Temp. Accuracy	0.1°C
Heating Lid Temp. Range	RT+30°C~105°C
Automatically Heating Lid	Shut off automatically When The Sample is Lower Than 30°C is Program Over
Timer	1s~99min 59 Sec/Infinite
Timer Increasing Decreasing	599~599 S for Long PCR
Timer Increasing/ Decreasing	-9.9~9.9°C For Touchdown PCR
Programs Stored	>100
Max. Cycles	99
Max. Steps	30
Program Pause Function	Yes
16°C Temp. Holding Function	Infinite
Real-Time Operation	Image-Text displayed
Capacity	96x0.2ml(PCR Plate without /semi Skirt), 12x18x0.2ml Strips 8x12x0.2ml Strips, 0.2ml Tubes (Height 20 23mm)
Interface Port	USB 2.0
Dimension (WxDxH) in mm	200x300x170
Weight	4.5kg
Voltage	AC 100 240V, 50/60HZ





HIGH PERFORMANCE LIQUID CHROMATOGRAPHY

TECHNICAL SPECIFICATIONS OF PUMP

- Flow Range 0.001-0.999ml/min
- Delivery method Double piston (Main & Auxiliary)
- Pump Head 10ml SST/Peak analytical
- Accuracy $\pm 1\%$ or $\pm 2\mu\text{l}/\text{min}$, whichever is greater $\pm 1\%$ or $\pm 1\mu\text{l}/\text{min}$, whichever is greater
- Flow rate setting 0-0.10ml/min.0.01inc. 0-0.0.90ml/min.0.10inc. 1.0 ml/min+0.10inc.
- Precision 0.1% RSD
- Pmax 9999psi
- System Connections 1/16" Capillaries
- Dimensions 130mmx260mmx420mm
- Weight 11 kg
- Power Input 85 to 264VAC, 47 to 63 Hz, 60Watts
- Display 300mm



TECHNICAL SPECIFICATIONS OF UV DETECTOR

- Wavelength 190-700nm
- Spectral bandwidth 6nm
- Wavelength Accuracy $< \pm 1\text{nm}$
- Wavelength Reproducibility $< \pm 0.5\text{nm}$
- Flow pool volume 8ul
- Optical path 10nm
- Dynamic Noise $< \pm 0.75 \times 10^{-5} \text{AU}$ (Methanol, 1ml/min 254nm, 20°C)
- Static Noise $< \pm 0.5 \times 10^{-5} \text{AU}$ (Empty pool, Responsetime 1s, 20°C)
- Dynamic Drifting $< \pm 1 \times 10^{-4} \text{AU}$ (Methanol, 1ml/min 254nm 20°C)
- Static Noise $< \pm 0.5 \times 10^{-4} \text{AU}$ (Empty pool, Responsetime 1s, 20°C)
- Qualitative Repeatability RSD<0.1%
- Qualitative Repeatability RSD<0.5%
- Diensions 130Hx260Wx420D.(D)
- Weight 11 kg

STANDARD ACCESSORIES

- Liquid Constant Flow Pump 2 Set
- UV-VIS Spectrophotometric Detector 1 Set
- System Controller 1 Set
- Mixer 1 Set
- Injector 1 Set
- Chromatography data system 1 Set
- Chromatography column 1 Set



Rheodyne Injector 7725i (USA)
Available at Extra Cost



HPLC SYSTEM

SILENT FEATURES

- Self-priming pump head requires no manual Priming
- Patented "Floating Pump Seal" designed for extended seal wear.
- Available with Micro, analytical, semi prep, and prep pump heads.
- Programmable solvent compressibility compensation
- Easy maintenance and service for all wetted parts.
- Integral prime/purge assemble for quick solvent changes

TECHNICAL SPECIFICATIONS OF PUMP

- Flow Range 0.001-0.999ml/min
- Delivery method Double piston (Main & Auxiliary)
- Pump Head 10ml I SST/Peak analytical
- Accuracy $\pm 1\%$ or $\pm 2\mu\text{l}/\text{min}$, whichever is greater $\pm 1\%$ or $\pm 1\mu\text{l}/\text{min}$, whichever is greater
- Flow rate setting 0-0.10ml/min. 0.01 inc. 0-0.90ml/min. 0.10 inc. 1.0 ml/min + 0.10 inc
- Precision 0.25% from 0.1ml/min to 10ml/min at 20degC, 0.25% from 0.1ml/min to 10ml/min at 20degC (Micro)
- Pmax 6000psi
- System Connections 1/16" Capillaries
- Dimensions 410mm x 180mm x 270mm
- Weight 7.3 kgs
- Power Input 85 to 264VAC, 47 to 63 Hz, 60Watts
- Display 320mm
- Control Stand alone mode using front panel

TECHNICAL SPECIFICATIONS OF UV DETECTOR

- Wavelength 190-700nm
- Spectral bandwidth 6nm
- Wavelength Accuracy $\leq \pm 1\text{nm}$
- Flow pool volume 10ul
- Wavelength Reproducibility $\leq \pm 0.5\text{nm}$
- Optical path 10nm
- Dynamic Noise $\leq \pm 2.5 \times 10^{-5}\text{AU}$ (Method, 1ml/min 254nm. 20°C)
- Static Noise $\leq \pm 1 \times 10^{-5}\text{AU}$ (Empty pool, Response time 1s, 20°C)
- Dynamic Drifting $\leq \pm 2.5 \times 10^{-4}\text{AU}$ (Method, 1ml/min 254nm 20°C)
- Static Noise $\leq \pm 1 \times 10^{-4}\text{AU}$ (Empty pool, Response time 1s, 20°C)
- Qualitative Repeatability RSD < 0.1%
- Qualitative Repeatability RSD < 0.5%
- Dimensions 160H x 260W x 350D. (D)
- Weight 6 kg
- Operating Temperature 4-40°C
- Minimum detection Concentration $< 1 \times 10^{-8}\text{g/ml}$ (Naphthalene/methanol solution)
- Linear range $> 10^4$



STANDARD ACCESSORIES

- Injector'
- Micro Syringe
- Column C-18
- Software CD
- Filter



Rheodyne Injector 7725i (USA)
Available at Extra Cost



PCR THERMAL CYCLER

PRODUCT FEATURES:

- Adjustable Pressure hot lid, to prevent volatilizing and dewing.
- Hot lid with pressure alarm device, to prevent damaging test tube by too much pressure.
- Convenient and flexible module replacement mode.
- Innovative module wire socket design achieves module replacement without wire.
- The unique left- right design for amplification area and operating area makes operator more convenient and safer.



TECHNICAL SPECIFICATIONS

- | | |
|--------------------------------|----------------------------------|
| • Capacity | 64x0.2ml(A), 36x0.5ml(B) |
| • Temp Range | 4° C-99.9°C |
| • Max Heating Ramp Rate | 2.5°C/s |
| • Max Cooling Ramp Rate | 2.5°C/s |
| • Temp Display Accuracy | 0.1°C |
| • Accuracy | <±0.2.5°C |
| • Temp Fluctuation | <±0.1°C |
| • Uniformity | <±0.3°C (20-72°), <±0.5°C (95°C) |
| • Max program Unit | 9 |
| • Max Cycle No. | 9 |
| • Max No. of Cycle | 99 |
| • Max Content Temperature Time | 59m 59s |
| • Max Content Temperature | preservation time 99h59m |
| • Stored Program No. | 100 |
| • Size (WxDxH) | 370mm(W)x260mm(W)x290mm(W) |
| • Display | 4.3' LCD |
| • Weight | 5Kg |



ELECTROMAGNETIC SIEVE SHAKER

SALIENT FEATURES

- Intermittent & Continuous Shifting Motion
- 20×4 Alphanumeric LCD with Backlit Display
- 2 Tier Password Protection
- Fully Alphanumeric Keyboard
- Very Low Noise Operation
- Up to 8 Sieves (Test sieve Dia 200mm x 50mm h)



TECHNICAL SPECIFICATIONS

- | | |
|---------------------|---|
| • Operation mode | Intermittent and Continuous Shifting Motion Intermittent operation At Intervals (0.5 sec) |
| • Capacity | Up to 8 Sieves (Test Sieve Dia form 200mm x 50mm h) |
| • Shake time | Programmable Shake Time from 1 min to 99min |
| • Display | 20 x 4 Alphanumeric LCD with Backlit Display |
| • Keypad | Fully Alphanumeric Keypad |
| • Power level | Programmable (from 1 to 20) |
| • Noise | Very Low Noise Operation |
| • Security | 2 Tier Password Protection Facility (Admin & User) |
| • Printer | RS 232 Port for Serial Printer using 80 Column Dot Matrix or Thermal Printer |
| • Dry sieving | Standard (Wet Sieve Optional) |
| • Power | 220VAC, 50 Hz |
| • Dimension (LxBxH) | 310mm x 390mm x 260mm (approx.) |
| • Weight | 49 kgs approx. (without Sieves) |



FLOCCULATOR/JAR TEST APPARATUS

SALIENT FETURES

- Accepts two, four & six samples
- Digital indication of speed and time
- Two pre-set programs
- Built in illumination for easy viewing of samples

TECHNICAL SPECIFICATIONS

Model	A	B	C
• No. of Jar	2	4	6
• Speed range	25 to 200 RPM		
• Pre-set programs	2		
• Timer	0 to 99 minutes		
• Controls Keypad	Touch sensitive		
• Digital Display	LED		
• Power	230V, 50Hz, 100W		





NIR ANALYSIS FOR GRAIN, FOOD AND FEED

SALIENT FEATURES:

Parameters:

- Moisture, Protein, Fat/Oil, Ash, Fiber, Starch, Amino Acid, Sugar,
- Dry Matter and more

High Performance

- Wavelength repeatability <0.01 nm
- Wavelength accuracy <0.1 nm
- Background noise <50 μ A
- Analysis time <10s

Easy operation with user-friendly software

- Versatile results display with warning and action displays for outlier and product limits.
- Easy and reliable software operation ensures
- Versatile results display with warning and action displays for outlier and product limits.
- stable analysis results. User can develop their own calibrations with total autonomy under the
- guidance of engineer. Online data analysis and multiple statistics functions.



TECHNICAL SPECIFICATIONS

- Wavelength range 1000-1800 nm, NIR 4272, 1000-2500 nm, NIR 4275
- Light Source Tungsten halogen lamp with expected lifespan more than 5000 hours, User changeable via specific disassemble tool
- Measurement mode Diffuse reflectance
- Detector High Performance ultra-cooled InGaAs (Indium Gallium Arsenide) detector to -25°C, dual stage temperature stabilized
- Optical Bandwidth 10.95 $\pm$ 0.3 nm @ 1395.5 nm
- Background noise Less than 50 A
- Sample volume Flexible 50-150 ml, 3 types of sample cup
- Analysis time 6-10 sec. (30 scans/sample=6s, scan speed= 5 times/sec.)
- Wavelength accuracy <0.1 nm to traceable standard reference material
- Ambient temperature 5-35 °C
- Ambient humidity <90% RH, < 85% RH recommended
- Power Supply 198-242V, frequency 50 Hz, 0.5A
- Dimensions (L $\times$ W $\times$ H) 403 $\times$ 391 $\times$ 374 mm
- Weight 18kg, 40 lbs.; 40kg, 88 lbs. with veneer package



REFRIGERATED CIRCULATING BATH

SALIENT FETURES

- PT100 temperature sensor Both sides folding handle for easy movement.
- Overheat protection and liquid alarm function.
- Stainless steel inner tank, Wavelength alarm.
- Fast cooling, low noise, low vibration, stable and reliable performance.
- LCD, Microprocessor, High Precision, PID temperature control system.
- Pump flow rate 6L/min & Programable temperature controller
- Application: It can be attached temperature maintenance in

• Fermentation tank	Spectrophotometer	Rotary Evaporator
• Polarimeter	Refractrometer	Viscometer
• Electrohoresis System	Chromatorgraphic Column	



TECHNICAL SPECIFICATIONS

	GSI-RCB-620	GSI-RCB-1220
• Model	GSI-RCB-620	GSI-RCB-1220
• Temperature Range	-20°C to 100°C	
• Temperature Display res	± 0.01°C	
• Temperature Fluctuation	±0.05°C	
• Temperature Control	Microprocessor PID	
• Display	LCD	
• Refrigeration	Air Cooled refrigeration through compressor	
• Refrigerant	R-134a	
• Pump circulation	Internal & External	
• Temperature Sensor	Pt100	
• Pump flow rate	6L/min	
• Power Requirement	220VAC/50Hz	
• Bath Tank capacity	6L	12L
• Tank Size (LxWxD)	180x290x150mm	240x250x200mm
• Bath Opening	180x140mm	235x160mm
• Bath Depth	150mm	200mm
• Dimensions LxWxH	530x450x800mm	530x450x900mm
• Weight	44kg	50kg



REFRIGERATED MICRO CENTRIFUGE, DIGITAL-16000 R.P.M.(MICROPROCESSOR BASED)

INTRODUCTION

- Bench Top Refrigerated Micro Centrifuge Machine
- Heavy duty C.R.C. construction finished with powder coating
- Stainless Steel centrifugal bowl for extra protection and easy cleaning.
- Fitted with well balanced universal motor with having carbon brushes.
- 2 lines, 20 characters. LCD Display for set time, run time set and run rpm, rcf.
- Digital Timer 0-59 minutes
- Programmable Speed Regulator from 2000 to 16000 rpm in Variation of 100 rpm.
- Safety lid lock.
- P.I.D. Electronic digital temperature controller cum indicator is fitted to control the temperature of centrifuge bowl from room temp. upto -20°C and shuts off the cooling compressor within accuracy of $+1^{\circ}\text{C}$ in stand by mode. Means only the centrifuge bowl is cooling and centrifuge motor is in stand by mode.
- Temp. Accuracy when motor is also running is $\pm 2^{\circ}\text{C}$

TECHNICAL SPECIFICATIONS

- Max. Speed 16000 r.p.m.
- Max. RCF 16800xg
- Timer 0-59 min.
- Motor Universal Motor (with carbon brushes)
- Temp. Range from room temperature to Minus -20°C
- Power AC 220V 50 Hz 20A
- Weight 55 kg. approx.
- Dimension L-25" x W-20" x H-14" approx.

Rotor Type	Rotor Capacity	Speed on Rotor (r.p.m.)	R.C.F. on Rotor
Angle Rotor	12 x 1.5/2.2 ml.	20000	16800xg
Adapters to accept 1.5ml Eppendorf micro-centrifuge tubes.			

SALIENT FEATURES

- Low Sound
- Fitted with vacuum leg for better griping ntable.
- Turbidity Test Tubes 4) Temperature Probe



MODEL	GSI-1021	GSI-1022	GSI-1023	GSI-1024	GSI-1570	GSI-1580
Product	Digital Water and Soil Analysis Kit	Digital Water and Soil Analysis Kit	Digital Water and Soil Analysis Kit	Deluxe Water and Soil Analysis Kit	Microprocessor Water and Soil Analysis Kit	Microprocessor Water and Soil Analysis Kit
Display	3 ½ digit LCD Display	3 ½ digit LCD Display	3 ½ digit LCD Display	3 ½ digit LCD Display	16 characters X 2 lines alpha Numeric LCD	16 characters X 2 lines alpha Numeric LCD
Power Supply	230V +10 % 50 Hz & 1.5Vx6 Dry Cells	230V +10 % 50 Hz & 1.5Vx6 Dry Cells	230V +10 % 50 Hz & 12V Rechargeable Battery	230V +10 % 50 Hz & 1.5Vx6 Dry Cells	230V +10 % 50 Hz & Inbuilt 12V rechargeable battery	230V +10 % 50 Hz & Inbuilt 12V rechargeable battery
Data Interface					RS232 & Parallel output available for interfacing to computer/printer	
pH						
Range	0 to 14 pH	0 to 14 pH	0 to 14 pH	0 to 14 pH	0 to 14 pH	0 to 14 pH
Resolution	0.01pH	0.01pH	0.01pH	0.01pH	0.01pH	0.01pH
Accuracy	0.01pH ± 1 digit	0.01pH ± 1 digit	0.01pH ± 1 digit	0.01pH ± 1 digit	0.01pH ± 1 digit	0.01pH ± 1 digit
Temp. Comp	0-100°C (Manual)	0-100°C (Manual)	0-100°C (Manual)	0-100°C (Manual)	Automatic with Pt100 Sensor & Manual by keys	Automatic with Pt100 Sensor & Manual by keys
Conductivity						
Range	0-200 µS 0-2 ms, 0-20 ms, 0-200 ms	0-200 µS 0-2 ms, 0-20 ms, 0-200 ms	0-200 µS 0-2 ms, 0-20 ms, 0-200 ms	0-200 µS 0-2 ms, 0-20 ms, 0-200 ms	0-200 µS 0-2 ms, 0-20 ms, 0-200 ms, 0-1000 ms	0-200 µS 0-2 ms, 0-20 ms, 0-200 ms, 0-1000 ms
Resolution	0.1 µS	0.1 µS	0.1 µS	0.1 µS	0.01/ 0.1/ 1 uS/cm or mS/cm as per range	0.01/ 0.1/ 1 uS/cm or mS/cm as per range
Accuracy	±0.5% FS ± 1 digit	±0.5% FS ± 1 digit	±0.5% FS ± 1 digit	±0.5% FS ± 1 digit	±0.5% FS ± 1 digit	±0.5% FS ± 1 digit
Range Selection	Manual	Manual	Manual	Manual	Automatic	Automatic
Cell Constant	0.4-1.5	0.4-1.5	0.4-1.5	0.4-1.5	0.05 to 2.0 adjustable	0.05 to 2.0 adjustable
Temp. Coeff.	2%	2%	2%	2%	0-4% adjustable	0-4% adjustable
Temp. Comp	0-100°C (Manual)	0-100°C (Manual)	0-100°C (Manual)	0-100°C (Manual)	Automatic with Pt100 Sensor	Automatic with Pt100 Sensor
Sensor	Platinum DIP Type Cell	Platinum DIP Type Cell	Platinum DIP Type Cell	Platinum DIP Type Cell	Platinum DIP Type Cell	Platinum DIP Type Cell
TDS						
Range	0-200 ppm 0-2 ppt, 0-20 ppt, 0-200 ppt	0-200 ppm 0-2 ppt, 0-20 ppt, 0-200 ppt	0-200 ppm 0-2 ppt, 0-20 ppt, 0-200 ppt	0-200 ppm 0-2 ppt, 0-20 ppt, 0-200 ppt	0-200 ppm 0-2 ppt, 0-20 ppt, 0-200 ppt	0-200 ppm 0-2 ppt, 0-20 ppt, 0-200 ppt
Cell Constant	Pre-Adjustable	Pre-Adjustable	Pre-Adjustable	Pre-Adjustable	0.5 by default (adjustable)	0.5 by default (adjustable)
Resolution	0.1ppm	0.1ppm	0.1ppm	0.1ppm	0.01/ 0.1/ 1 ppm/ppt as per range	0.01/ 0.1/ 1 ppm/ppt as per range
Accuracy	±5% FS ± 1 digit	±5% FS ± 1 digit	±5% FS ± 1 digit	±5% FS ± 1 digit	±0.5% FS ± 1 digit	±0.5% FS ± 1 digit
Sensor	Platinum DIP Type Cell	Platinum DIP Type Cell	Platinum DIP Type Cell	Platinum DIP Type Cell	Platinum DIP Type Cell	Platinum DIP Type Cell
Temperature						
Range	0-100°C	0-100°C	0-100°C	0-100°C	0-105°C	0-105°C
Resolution	0.1°C	0.1°C	0.1°C	0.1°C	0.1°C	0.1°C
Accuracy	±0.1°C ± 1 digit	±0.1°C ± 1 digit	±0.1°C ± 1 digit	±0.1°C ± 1 digit	+ 0.2% + 1 digit	+ 0.2% + 1 digit
Sensor	Semiconductor Type	Semiconductor Type	Semiconductor Type	Semiconductor Type	Semiconductor Type	Semiconductor Type
mV (ORP)						
Range	- 1999 to +1999 mV	- 1999 to +1999 mV	- 1999 to +1999 mV	- 1999 to +1999 mV	- 1999 to +1999 mV	- 1999 to +1999 mV
Resolution	1 mV	1 mV	1 mV	1 mV	1 mV	1 mV
Accuracy	± 0.1% ± 1 digit	± 0.1% ± 1 digit	± 0.1% ± 1 digit	± 0.1% ± 1 digit	± 0.1% ± 1 digit	± 0.1% ± 1 digit
Dissolved Oxygen						
Range		0-20ppm	0-20ppm	0-20ppm	0-20ppm	0-20ppm
Resolution		0.1ppm	0.1ppm	0.1ppm	0.1ppm	0.1ppm
Range		0-20ppm	0-20ppm	0-20ppm	0-20ppm	0-20ppm
Resolution		0.1ppm	0.1ppm	0.1ppm	0.1ppm	0.1ppm
Accuracy		±0.01C ± 1 digit	±0.01C ± 1 digit	±0.01C ± 1 digit	± 0.2 ppm ± 1 digit	± 0.2 ppm ± 1 digit
Temp. Comp		05°C-50°C (Manual)	05°C-50°C (Manual)	05°C-50°C (Manual)	Automatic /Manual	Automatic /Manual
Pressure comp.					0-999 mm of Hg (Manual)	0-999 mm of Hg (Manual)
Salinity Correction					0-20 mg/l	0-20 mg/l
DO Sensor		Gold & Silver Amphoteric probe	Gold & Silver Amphoteric probe	Gold & Silver Amphoteric probe	Gold & Silver Amphoteric probe	Gold & Silver Amphoteric probe



Salinity						
Range	-	-	0-50 ppt	0-50 ppt	0-50 ppt	0-50 ppt
Resolution	-	-	0.1 ppt	0.1 ppt	0.1 ppt	0.1 ppt
Temp. comp.	-	-	Automatic	Automatic	Automatic	Automatic
Accuracy	-	-	± 0.5%	± 0.5%	± 0.5%	± 0.5%
Salinity factor	-	-	0.75 by default (Adjustable)	0.75 by default (Adjustable)	0.75 by default (Adjustable)	0.75 by default (Adjustable)
Turbidity						
Range	-	-		0-1000 NTU	-	0-1000 NTU
Resolution	-	-		0.1NTU in lowest Range	-	0.1NTU in lowest Range
Accuracy	-	-		±3% FS ±1 digit	-	±3% FS ±1 digit
Sample System	-	-		30 mm Clear Glass Test Tube	-	30 mm Clear Glass Test Tube
Accessories	pH Electrode, Cond./TDS/SAL Cell, Temperature Probe, Do Probe, Dry Cell Battery Container, Main Lead, Operation Manual, Buffer Set , RS232 Cable (for Microprocessor Models)			er Tablets with Bottles of 4 pH and 7 pH, Turbidity Test Tube		



GSI-1021 same for GSI-1022& 1023



GSI-1580



GSI 1570



GSI-1024

MODEL	GSI-1021	GSI-1022	GSI-1023	GSI-1024	GS-1570	GSI-1580
pH	•	•	•	•	•	•
Conductivity	•	•	•	•	•	•
TDS	•	•	•	•	•	•
Temperature	•	•	•	•	•	•
mV (ORP)	•	•	•	•	•	•
Dissolved Oxygen		•	•	•	•	•
Salinity			•	•	•	•
Turbidity				•		•



ELISA MICRO PLATE WASHER

INTRODUCTION

- Automatic Elisa Plate Washer suitable for U.V & Flat Bottom
- Standard aerosol protection cover
- 8 to 12 head manifold with lowest residual volume of 0.7ul/Well
- Program up to 100 different wash protocol
- Programmable washing for full plate or select strips
- Programmable shaking, soaking & shaking plus soaking time
- Waste liquid level sensor avoid overflow from waste bottle

SALIENT FEATURES

- Detachable microplate holder for easy, clean & disinfect.
- Automatic rinse by distilled water during turn on or turn off ensure avoid crystallizing in the pipes.
- Direct key in the panel to stop or pause working wash protocol.
- Adjustable dispense time, dispense volume & probe head position in wells.
- Multi-plate can be selected by default settings or manual operation.
- Two alternative buffer solutions bottle (A and B) Can be selected from wash protocol.
- Wash bottle filter separate sediment in the solution pipes.
- Bottom holder is slope, in order to drain out all waste water, which can prevent microplates from contaminating.

TECHNICAL SPECIFICATIONS

- **Plate models:** 96/48 well plate or strip (Flat, U & V - bottom)
- **Wash Head:** 8 or 12 Head Manifold
- **Wash Mode:** Plate & Row
- **Wash rows:** 1-12 Or 1-8 rows
- **User Interface:** 5" LCD display
- **Wash Programs:** 100 user entered wash protocols
- **Strip Washing:** 1 to 12 Strips programmable
- **Washing Cycle:** Up to 99 cycles
- **Dispensing Volume:** 50~950µL for 8-12 way manifold
- **Dispensing Precision:** < 1.5 % at 350 µl
- **Aspiration Time:** 0.1 - 9.9 Second
- **Prime volume:** 50 - 1000 µl
- **Aspiration pressure:** Adjustable pump Pressure
- **Soak Time:** 0~999 seconds or minutes
- **Shaking Time:** 0~999 seconds or minutes
- **Residual Volume:** ≤ 0.7 ~ 1 µl/well
- **Rinse Pipeline Time:** 1~ 240 Sec adjustable, bottom washing & two point aspirating function.
- **Auto DW Wash:** 0-20 Plate Auto Distilled Water wash
- **Number of Bottles:** 2 Wash buffer, 1 Rinse/DI & 1 Waste bottle with sensor (2L each)

OPERATING ENVIRONMENT

- **Power supply:** AC 110/220V, 50-60HZ / 50 VA
- **Operating Temperature:** 10 C- 30 C
- **Storage Temperature:** 10 C- 40 C
- **Relative humidity:** Up to 90% relative humidity without condensation
- **Atmospheric pressure:** 86 Kpa ~ 106 Kpa
- **Dimensions:** 446 mm X 368 mm X 164 mm
- **Weight:** 09 kg



VISUAL COLORIMETER

TECHNICAL SPECIFICATIONS

Measuring Principal	Visual, Terms of international colour scale units
Modes	Transmittance, reflectance
Measurement range	0.1-79.9Red 0.1-79.9Red 0.1-49.9Red 0.1-3.9Red
Minimum Reading	0.1
Resolution	0.1 colour scale unit
Viewing System	Fully adjustable
Light Source	Incandescent Lamp
Illuminant	Approximates to daylight
Path Length	Up to 180mm
The Diffuse Reflect Activity of white plate	> 80%
The Amplification Of the Magnifiers	1.9x
The Dimension of Colorimetric Untensil	10x20x40mm, 25.4x20x40mm, 133.4x20x40mm
Power Supply & Power Watts	AC 220 V/ 50Hz & 50 W
Weight (Gross)	13kg
Overall dimensions	620mm x 440mm x 300mm





BLOOD ROLLER MIXER

SALIENT FEATURES

- Rocking and Rolling action for complete Mixing
- Four Roller Design with small footprint
- Designed for continuous quiet operation
- Ambient temperature range +4°C to + 60°

TECHNICAL SPECIFICATIONS

ROLLER SIZE	230mm
CONTROLLERS	Analog
NO OF ROLLERS	4
SPEED	33RPM
MAXIMUM LOAD	5 test tubes
TIMER	No
POWER SUPPLY	230V 10% AC 50Hz



DIGITAL BULK DENSITY APPARATUS

SALIENT FEATURES

- Extremely useful for Pharmaceutical Lab
- Highly Accurate and Easy to Operate
- Microcontroller Based Digital Display
- Soft Touch Membrane Keys
- 3LED's status Indication
- Audible Alarm Sound
- Last Count Retention on Power Failure

TECHNICAL SPECIFICATIONS

Maximum Counts	9999
Display	4 Digit 7-Segment Red LED
Keyboard	6 Soft Touch Membrane Keys
Cylinders	2 Nos., 50/100ml Cylinders
Drop	25mm (Approx.)
Power	230V 10% AC, 50Hz.
Dimensions	600 x 450 x 200 mm (Approx.)
Weight	12 kg (approx.)
Accessories	50ml Cylinders — 2 Nos., Instruction Manual & Dust Cover





DIGITAL BOMB CALORIMETER

TECHNICAL SPECIFICATION

Display	3 digit LED
Temperature accuracy	0.1°C
Temperature Resolution	0.1°C
Temperature Detector	RTD
Temp. Range	RT. to 99.9°C
Calculate	Manual
Power Supply	230V 10%/ 50Hz



SALIENT FEATURES

Manual Measurement & Calculation

Initial Temperature rise & fall

