

Dissolution Test Apparatus



Microprocessor Dissolution Test Apparatus PLW make -1918 & 1916 Models is a solid state instrument designed for the determination of active drug ingredient in any pharmaceutical formulation, tablet or capsule as per IP and USP specifications. This apparatus evaluates adequate bio-availability and provides necessary information to formulate in the development of therapeutically optimum dosage forms. The instrument is designed and manufactured for pharmaceutical industries. It is used in quality control and R & D to determine compliance with the dissolution requirement of the Tablet and Capsule as per USP/IP standards.

Instrument uses the latest microprocessor technology and advanced engineering techniques so as to give enhanced accuracy and reproducibility. The system has user friendly prompts, which guide you throughout the measurement process.

System is equipped with 4 line alphanumeric LCD display with backlit and 19 soft touch membrane type keys that provides a convenient interface for entering the data. Independent stirrer and platform keys on the front panel allow the user to easily start/stop stirrer movement or displacement of platform in the required direction at any time.

The instrument has the storage facility for 200 samples. The samples being analyzed are automatically stored in the memory in different batch and sample numbers. The system has three programming modes i.e. Routine, Sustain and Control mode. It has the facility for setting up 20 different test methods using Routine and Sustain modes which are retained in the memory even when the power is switched OFF. Provision has also been made for attachment of any dot matrix printer with centronics interface so that any of the stored setups/results can be printed.

The unit is provided with dissolution vessel with cover, having necessary arrangement to hold temperature sensor and the same is placed in the sturdy, acrylic water bath. The large spread out stainless steel heater ensures perfectly uniform heating. The instrument has dual channel temperature system with sensors to monitor the test temperature of dissolution vessel as well as that of the water bath.

The motorized platform's (stirrer unit) up/down movement of the instrument improves the accessibility for sampling. Stirrer speed is accurately controlled and maintained at ± 1 rpm by microcontroller as per IP, USP specifications.

The elapsed time for the current ongoing test is retained in the instruments memory. In case of power failure during the run mode, when the instrument is switched On again, the user has the option to run the test from the point of the power failure.

Features

- 8 Station (Model - 1918)
- 6 Station (Model - 1916)
- Complies with USP, IP specifications
- Extremely Useful for Pharmaceutical Labs
- Highly Accurate and Easy to Operate
- Programmable Stirrer Speed Control i.e. (25 - 200 RPM)
- 20 x 4 Line Alphanumeric LCD with Backlit
- 19 Soft Touch Membrane Type Keys
- Three Programming Modes i.e. Routine, Sustain and Control
- 20 Independent Programmable Setups for Routine and Sustain Mode with Storage Facility
- 200 Samples Storage Facility
- Printer Attachment Facility
- Audio Visual Indicators for System Status
- Easy to Empty & Clean the Water bath with Bottom Drainage
- Continuation of Last Sample Run in case of Power Failure

GENERAL SPECIFICATIONS:-

| | |
|------------|---|
| Stations | 8 Stations in Model - 1918 6 Stations in Model - 1916 |
| Display | 20 x 4 Line Alphanumeric LCD display with Backlit |
| Keyboard | 19 soft touch membrane keys |
| LED | 6 LED's, 3 LED's for Test status like Run, Alarm, End and 2 LED's for Platform up/down status and one for heater ON/OFF status. |
| Prog. Mode | Routine, Sustain and Control mode. Facility for 20 different test setups available in Routine and Sustain mode. |
| Printer | Provision for the attachment of dot-matrix printer with centronics parallel port interface available. |

GENERAL SPECIFICATION

STIRRER

| | |
|------------|---------------------------|
| Speed | 25 - 200 RPM, ± 1 RPM |
| Resolution | 1 RPM |
| Accuracy | ± 1 RPM |

TEMPERATURE

| | |
|---------------|---|
| Range | 30 - 50 °C |
| Accuracy | ± 1 °C |
| Temp. Control | Microprocessor Based using PT100/Semiconductor Sensor |

SAMPLING

| | |
|-----------------|---|
| Reaction Vessel | 1000 ml jars with stirrer pedals and baskets |
| Heater | 1 KW |
| Power | 230 V $\pm 10\%$, 50 Hz. AC |
| Accessories | Main Unit with Acrylic Tank and Rectangular Cover Plate and Water Bath Temperature Sensor (T1) , External Temperature Sensor (T2) for Vessel, Reaction Vessel capacity 1000 ml ,(8 Nos. in Model - 1918 and (6 + 1) Nos. in Model - 1916) , Round Acrylic Cover Plate with Hole and a large slit, (8 Nos. in Model - 1918 & 6 Nos. in Model - 1916), S.S. Paddle, S.S Wire Mesh Basket , (8 Nos. in Model - 1918 & 6 Nos. in Model - 1916), Glass pipettes with rubber bellows, Mains Lead, Instruction Manual , Dust Cover |

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Instrument uses the latest microprocessor technology and advanced engineering techniques so as to give enhanced accuracy and reproducibility. The system has user friendly prompts, which guide you throughout the measurement process.

Microprocessor Dissolution Test Apparatus is equipped with 4 line alphanumeric LCD display with backlit for displaying various test parameters and 15 soft touch membrane type keys with full numeric keypad that provides a convenient interface for entering numeric values. The samples being analyzed are automatically stored in the memory in different batch and sample numbers.

The instrument has the storage facility for 200 samples. It also has the facility for setting up 20 different test methods using Routine and Sustain modes which are retained in the memory even when the power is switched OFF. Provision has also been made for attachment of any dot matrix printer with centronics interface so that any of the stored setups/results can be printed.

The unit is provided with 1 unbreakable dissolution vessel with cover, having necessary arrangement to hold temperature sensor and the same is placed in the sturdy, acrylic water bath. The large spread out stainless steel heater ensures perfectly uniform heating. The instrument has dual channel temperature system with sensors to monitor the test temperature of dissolution vessel as well as water bath temperature.

The Stirrer unit is attached by single column at the back of the instrument to improve the accessibility for sampling. Stirrer speed is accurately controlled and maintained at ± 1 rpm by microcontroller.

Features

- Complies with USP, IP specifications
- Extremely useful for pharmaceutical labs
- Highly Accurate and Easy to Operate
- Programmable Stirrer Control
- 20 x 4 Line Alphanumeric LCD with Backlit
- 20 Setups Storage Facility
- 200 Samples Storage Facility
- Printer Attachment Facility
- Audio Visual Indicators for System Status

General Specification:-

| GENERAL | |
|---------------------------|--|
| Display | 20 x 4 Line Alphanumeric LCD display with Backlit |
| Keyboard | 15 soft touch membrane keys |
| LED's | 4 LED's available for different status indications. 3 LED's for Test status like Run, Alarm, End and one LED for heater on/off status. |
| Setup Data | Facility for 20 different test setups available in Routine and Sustain mode. |
| Printer | Provision for the attachment of dot-matrix printer with centronics parallel port interface available. |
| STIRRER | |
| Speed | 25 - 160 RPM \pm 1 RPM |
| Resolution | 1 RPM |
| Accuracy | \pm 1 RPM |
| Depth Adjustment | 25 mm to 40 mm |
| TEMPERATURE | |
| Range | 20 - 40 $^{\circ}$ C |
| Accuracy | \pm 1 C |
| Temperature Control | Microprocessor Based using PT100/Semiconductor Sensor |
| SAMPLING | |
| Reaction Vessel | 1000 ml jar with stirrer pedal and basket |
| Heater | 1 KW |
| Power | 230 V \pm 10%, 50 Hz. AC |
| Dimensions (L x B x H) | 330 x 300 x 660 mm (Approx.) |
| Weight | 9 Kg. (Approx.) |
| Accessories | <ul style="list-style-type: none"> Main Unit with Acrylic Tank and Rectangular Cover Plate, Reaction Vessel - Capacity 1000 ml, Round Acrylic Cover Plate with Hole and a large slit, Stirrer Motor with Tightening Knob, S.S. Paddle, Stirrer Shaft and Clamp, S.S Wire Mesh Basket, S.S. Support Rod fitted with Acrylic Block, Mains Lead & Dust Cover, Instruction Manual |