DT Online System

Semi-automatic dissolution testing with integrated UV-Vis analysis

ERWEKA

The highlights of the new **DT Online System**

The ERWEKA Dissolution Online Systems are the perfect, semi-automatic solution for dissolution testing with integrated UV-Vis online analysis.

The DT 720 with integrated, automatic Sampling station ASS-8 transports freshly taken samples directly to the UV-Vis analysis. The samples are analyzed directly and the data is evaluated and saved using our advanced Disso.NET software.

With the help of the Thermo Scientific™ Evolution 350™ Double-Beam Spectrophotometer that we recommend and which is fully integrated into the system, 5-minute cycles in the 200 nm to 350 nm range, which is important for dissolution tests, can be tested and evaluated with high efficiency. In connection with the maintenance-free pump PVP 820, the customer can trust on highest reliabilityin dissolution testing.

- 100% USP/EP compliant dissolution testing
- USP Method 1, 2, 5 and 6
- Thermo Scientific™ Evolution 350™ Spectrophotometer for 5-min. cycles
- Completely software controlled by Disso.NET

Dissolution Tester DT 728

The ERWEKA DT 728 is the perfect dissolution tester for the ERWEKA DT online system. The DT 728 ensures absolutely reliable test results that the user can rely on. 100% USP/EP compliant, in the usual robust ERWEKA quality and with integrated automatic sampling station ASS-8 and automatic tablet drop.

High-precision pumping with the PVP 820

With the maintenance-free PVP 820 piston pump, the samples are transported precisely from the dissolution tester to the Thermo Scientific Evolution 350 Photometer.

Complete control with Disso.NET

The Windows software Disso.NET completely controls the entire dissolution system, manages methods with tests and generates the associated reports. The software tracks all changes that are made using the integrated 21 CFR part 11 compliant audit trail. Thanks to the full integration of the Thermo Scientific Evolution 350, the UV-Vis evaluation takes place directly in the Disso.NET - so the user has all the data of the dissolution test in one place.

Thermo Scientific™ Evolution 350™

The Evolution 350™ is a double-beam photometer with xenon flash from Thermo Scientific. It is completely USP/EP compliant, offers selectable ban width (0.5 - 4.0 nm) and enables 5-minute cycles with spectra between 200 nm and 350 nm. It is completely integrated in the Disso.NET from hardware conrol up to data evaluation.

100% USP/EP-compliant

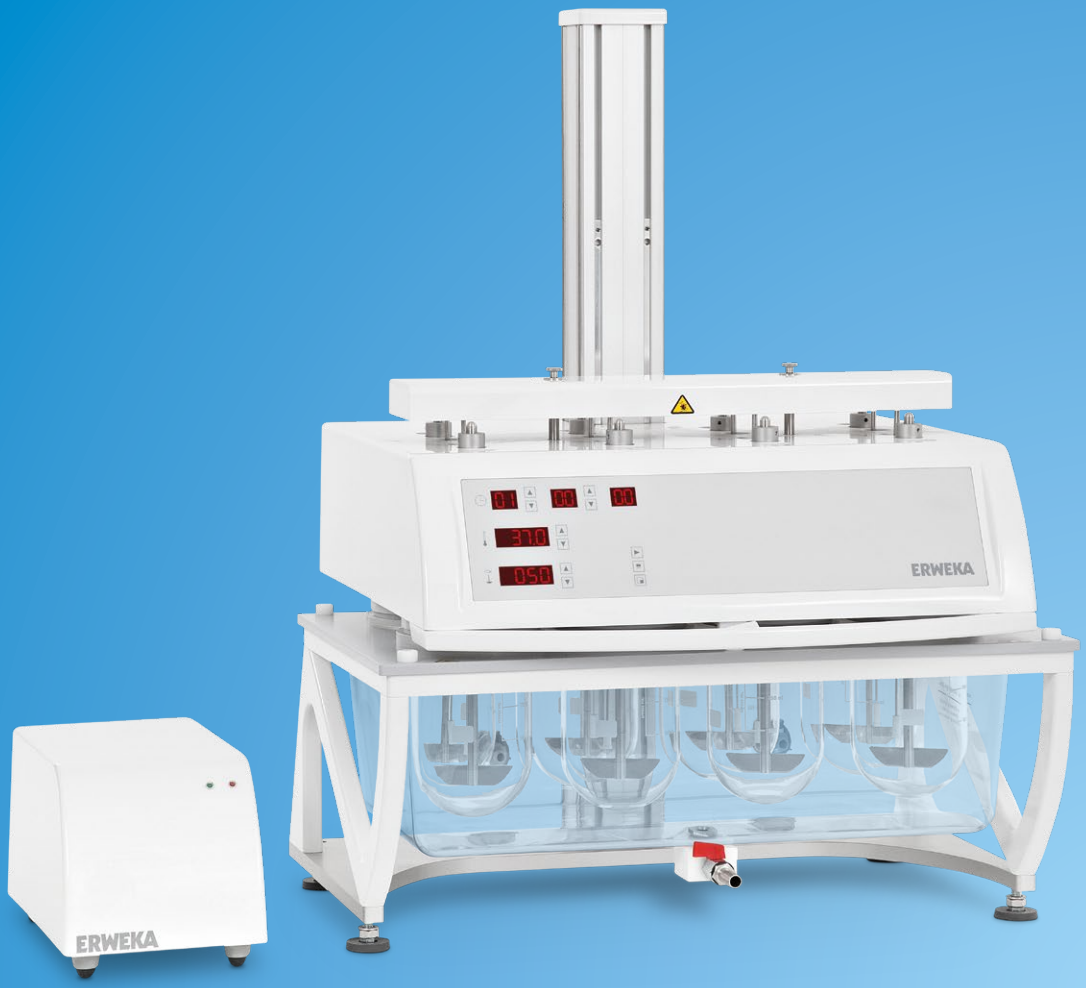
Dissolution Tester DT 720

The ERWEKA DT 720 series was developed in accordance with the USP/EP/JP requirements for testing tablets and other dosage forms. It combines the latest technology with excellent and user-friendly design. The drive head can be operated both in the high-head and in the low-head position and thus offers maximum flexibility. As part of the Dissolution Online System, it is completely controlled by the connected Disso.NET software - from the automatic tablet drop, to the control of the motors and the retraction and extension of the automatic sampling station ASS-8.

The manual drive head with gas spring support enables simple and quick lifting within a few seconds. Evaporation is less than one percent within 24 hours (37 ° C, 50 rpm, 1000 ml). Thanks to its new, long-lasting plastic housing, corrosion is reduced to a minimum.

The DT 720 is therefore an extremely reliable partner for daily dissolution test tasks.

- **100% USP/EP compliant dissolution testing**
- **USP method 1, 2, 5 and 6**
- **External heater for vibration free testing**



Reliable double-beam photometer

Thermo Scientific™ Evolution 350™

The Thermo Scientific™ Evolution 350™ is a robust and precise double-beam photometer with xenon flash. With its performance optimized for demanding applications and selectable band widths of 0.5, 1.0, 1.5, 2.0 and 4.0 nm, it is ideally adapted to the diverse requirements of a dissolution system. The xenon flash is extremly durable (>3 years) and is available within seconds - this eliminates long warm-up times and measurement operation can be started quickly. In combination with our dissolution tester, the Evolution 350 also enables 5-minute cycles without any problems.

With the ERWEKA Disso.NET, the Evolution 350 is seamlessly integrated into all ERWEKA dissolution systems either online, online/offline or the RoboDis II with up to 40 batches. This enables combined reports with detailed dissolution curves and, if necessary, the recalculation of the test data.

- Double-beam xenon flash
- 5-minute cycles with spectra from 200 nm to 350 nm
- 100% USP/EP compliant
- Seamless integration in ERWEKA Disso.NET dissolution software
- Selectable gap widths (0.5, 1.0, 1.5, 2.0 and 4.0)

100% **100% USP/EP compliant**

Double-beam xenon flash

5-minute cycles up to 350 nm

Disso.NET **Full integration in Disso.NET software**

ERWEKA Systems
Versatile configurations

ERWEKA dissolution systems can be configured in many ways and can be adapted to customer requirements and budgets. In addition to the recommended configuration with the perfectly integrated Thermo Scientific Evolution 350 and the maintenance-free piston pump PVP 820, there are variants with the cheaper peristaltic pump IPC 8 and the Shimadzu UV-1900 photometer.

If the test volume is high, we also offer a DT Online System with a 14-Vessel DT 141x and the Analytic Jena Specord 210/16.

- **Can be flexibly adapted to customer requirements**
- **Dissolution testing with up to 14 digits**
- **Full integration of all system components in Disso.NET software**

Art. No.	Dissolution Online System UV-Vis
26932	UV-Vis Online System with Evolution 350, IPC 8 for DT 72x + Disso.NET 4
27028	UV-Vis Online System Analytic Jena Specord 210, IPC16 for DT 141x/DT 161x
27030	UV-Vis Online System with Shimadzu 1900, IPC 8 for DT 72x + Disso.NET 4
26934	UV-Vis Online System with Evolution 350, PVP 820 for DT 72x + Disso.NET 4
26983	UV-Vis Online System Analytic J. Specord 210, PVP 1420 for DT 141x/DT 161x
27031	UV-Vis Online System with Shimadzu 1900, PVP 820 for DT 72x + Disso.NET 4

High volume testing with DT 141x and Analytic Jena Specord 210/16

Technical specifications Thermo Scientific™ Evolution 350™

Optical Design		**Modified Ebert** **Double beam with sample and reference cuvette/accessory positions**
Spectral Bandwidths		Selectable 0.5, 1.0, 1.5, 2.0, 4.0 nm
Light source		**Xenon flash lamp**
Detector		Detector dual-matched silicon photodiodes
Grating		Holographic, 1200 lines/mm, blazed at 240 nm
Beam Separation		210 mm
Scan Ordinate Modes		Absorbance, % Transmittance, % Reflectance, Kubelka-Munk, Log(1/R), Log(Abs), ABS × Factor, Intensity, 1st–4th Derivative
Wavelength	**Range**	190–1100 nm
	Accuracy	±0.20 nm (546.07 nm Hg emission linie), ±0.30 nm, 190–900 nm
	Repeatability	Standard deviation for 10 measurements <0.05 nm
	Scanning speeds	Variabel, up to 6000 nm/min
	Data interval	10, 5, 2, 1, 0.5, 0.2, 0.1, 0.05 nm
Photometric	**Range**	>4 A
	Accuracy - Instrument*	1A: ±0.004 A – 2A: ±0.004 A – 3A: ±0.006 A
	Repeatability	1A: ±0.0025 A
Stray light		198 nm: 2.4 A KCl – 220 nm: 3.5 A NaI – 340 nm: 4.0 A $NaNO_2$
Baseline Flatness		±0.0015 A (200–800 nm) – 2.0 nm SBW, smoothed
Dimensions (W × D × H)		61 × 53 × 38 cm
Weight		22 kg
Electrical Supply		100–240 V, 50–60 Hz

Data according to the manufacturer, subject to change.

Technical data DT 720 series

Supported USP methods	**USP Method 1 (Basket), Method 2 (Paddle), Method 5 (Paddle-over-disk), Method 6 (Rotating Cylinder) with 6 or 8 test stations**
USP/EP/JP compliance	100%
FDA Mechanical Calibration	✔
Device control	Manually via LED display and membrane keys on the device, 100% controllable via Disso.NET software
Evaporation	<1% (measured at 50 RPM, 1000 ml, 37 ° C over 24 h)
Vessel centerig	Automatic centering rings
Heater	External heating with a heating range of 30 - 50 ° C; minimizes vibrations
Tablet insertion	Manual tablet insertion or optional automatic tablet insertion (controllable via Disso.NET)
Leveling	Adjustable feet for quick leveling
Connections	RS 232 interface for PC connection, USB-B interface for firmware updates, USB-A for printers
Dimensions (HxWxD)	940 mm x 830 mm (with heater) x 640 mm
Weight	47 kg
Power connection	115 V or 230 V, 50/60 Hz

Technical data PVP x20

Pump	**PVP 620/720/820**	**PVP 1220/1420**
Channels	6, 7 or 8	12 or 14
Valves	-	
Accuracy	+/- 0,5 m.	
System compatibility	DT Online System, DT Offline System, DT On-/Offline System	
Benefits	Filtration down to 0.22 µm with a flat membrane filtration. Particularly suitable for fully automatic dissolution systems.	
Dimensions (HxWxD)	420x280x475	420x275x575
Weight	21 kg	28 kg
Power connection	115 V or 230 V, 50/60 Hz	

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