

DT Online System

Semi-automatic dissolution testing with integrated UV-Vis analysis











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 950 series with integrated, automatic Sampling station ASS-9 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 Analytik Jena Specord 200/210 UV-Vis photometer that we recommend, cycles in the 185 nm to 1200 nm range can be tested and evaluated with high efficiency. In connection with the maintenance-free pump PVP 820, the customer can trust on highest reliability in dissolution testing.



Dissolution Tester DT 958

The ERWEKA DT 950 is the perfect dissolution tester for the ERWEKA DT online system. The DT 950 ensures absolutely reliable and reproducible test results. 100% USP/EP compliant, with a novel, innovative design and the usual ERWEKA quality and with integrated automatic sampling station ASS-9 and automatic tablet drop.

High-precision pumping with the PVP 820

With the maintenance-free PVP 820 piston pump with almost wear-free ceramic pump heads, the samples are transported precisely from the dissolution tester to the Analytik Jena Specord 200/210 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 Analytik Jena Specord 200/210, 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. The USP / EP photometer qualification can also be done on request.

Analytik Jena Specord 200/210 UV-Vis Photometer

The Analytik Jena Specord 200/210 is an ultra-fast UV-Vis photometer that is effective in tracking chemical reactions in a short time. It is completely USP/EP compliant and enables cycles in a 185 nm to 1200 nm range. It is completely integrated in the Disso.NET from hardware conrol up to data evaluation and can be gualified on request.







100% USP/EP/JP-compliant

Dissolution Tester DT 950 Series

The ERWEKA DT 950 series was developed in accordance with the USP/EP/JP requirements for testing tablets and other dosage forms. It combines the latest embedded-pc 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-9.

The manual drive head with gas spring support enables simple and quick lifting within a few seconds. The DT switches to remote mode during Disso.NET operation and displays speed and temperature. Evaporation is less than one percent within 24 hours (37 $^{\circ}$ C, 50 rpm, 1000 ml). Thanks to its new, long-lasting plastic housing, corrosion is reduced to a minimum.

Thanks to its flexible upgradeability, a stand-alone DT 950 Series dissolution tester can be easily expanded to a full dissolution system. The DT 950 is therefore an extremely reliable and future proof partner for daily dissolution test tasks.

100%

100% USP/EP/JP compliant dissolution testing



USP method 1, 2, 5 and 6



External heater for vibration free testing





Reliable double-beam photometer

Analytik Jena Specord 200/210

The Analytik Jena Specord 200/210 is a robust and precise double-beam photometer with an extended wavelength range in the UV range and NIR range from 185 to 1200 nm. Combined with the wide range of accessories for liquid, gaseous, powder and solid samples, it ensures UV/Vis spectroscopic analysis of a wide range of molecules and compounds.

With its performance optimized for demanding applications, it is ideally adapted to the diverse requirements of a dissolution system. The wavelength reproducibility at 360.9 nm is \leq 0,02 nm. With this high photometric repeatability accuracy, variance in the measurement results is suppressed, enabling more accurate quantitation and the detection of low-concentration samples.

With the ERWEKA Disso.NET, the Analytik Jena Specord 200/210 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.



100% USP/EP/JP compliant



Double-beam technoloy



Ultra-fast cycles in a 185-1200 nm range



Full integration in Disso.NET software

- Cycles in a range of 185 nm to 1200 nm
- 100% USP/EP compliant
- Seamless integration in ERWEKA Disso.NET dissolution 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 Shimadzu 1900i and the maintenance-free piston pump PVP 820, there are variants with the cheaper peristaltic pump IPC 8 and the Analytik Jena Specord 200/210 Plus.

If the test volume is high, we also offer a DT Online System with a 14-Vessel DT 9510 and the Analytik Jena Specord 200/210.



Can be flexibly adapted to customer requirements



Dissolution testing with up to 14 digits



Full integration of all system components in Disso.NET software



User Management with Active Directory

Art. No.	Dissolution Online System UV-Vis
28777	UV-Vis Online System Analytik Jena Specord 200, IPC 8 for DT 95x
27961	UV-Vis Online System with Shimadzu 1900i, IPC 8 for DT 95x + Disso.NET 4
28773	UV-Vis Online System Analytik Jena Specord 200, IPC16 for DT 951x
28461	UV-Vis Online System Analytik Jena Specord 210, IPC16 for DT 951x
28778	UV-Vis Online System Analytik Jena Specord 200, PVP 820 for DT 95x
27963	UV-Vis Online System with Shimadzu 1900i, PVP 820 for DT 95x + Disso.NET 4
28774	UV-Vis Online System with Analytik Jena Specord 200, PVP 1420 for DT 951x
28462	UV-Vis Online System with Analytik Jena Specord 210, PVP 1420 for DT 951x

High volume testing with DT 9510 and Analytik Jena Specord 200/210









Technical specifications Analytik Jena Specord 200

Double beam spectrophotometer with fixed spectral bandwidth (Specord 210 with variable spectral bandwidth) Spectral Bandwidth 1.4 nm Light source Combination of deuterium and halogen lamp Detector Two silicon photodiodes Spectrometric system Monochromator with imaging grating and aspherical quartz-coated optics Baseline deviation ± 0.0005 A (200–1000 nm; Slit 1.4 nm) Zero point transmission ± 0.05 %T (200–1000 nm; Slit 1.4 nm) Range 190–1100 nm Accuracy ± 0.1 nm (Deuterium line at 656.1 nm) Registration speed Up to 12000 nm/min Min. data interval 0.02 nm Accuracy UV Accuracy Vis ± 0.010 A Accuracy Vis Reproducibility ≤ 0.03 %T Stray light 198 nm (KCI): ≤ 0.3 %T ≥ 0.03 %T ≥ 20 nm (Nal): ≤ 0.03 %T ≥ 20 nm (Nal): ≤ 0.02 %T <td colsp<="" th=""><th></th><th></th><th></th></td>	<th></th> <th></th> <th></th>			
Light source Combination of deuterium and halogen lamp Detector Two silicon photodiodes Spectrometric system Monochromator with imaging grating and aspherical quartz-coated optics Baseline deviation ± 0.005 A (200–1000 nm; Slit 1.4 nm) Zero point transmission ± 0.05 %T (200–1000 nm; Slit 1.4 nm) Range 190–1100 nm Accuracy ± 0.1 nm (Deuterium line at 656.1 nm) Wavelength Reproducibility Registration speed Up to 12000 nm/min Min. data interval 0.02 nm Photometric Range -3 to 3 A Accuracy UV ± 0.010 A + 0.010 A Accuracy Vis ± 0.003 A + 0.003 A Reproducibility ≤ 0.3 %T ≤ 0.005 A Stray light ≤ 0.03 %T ≤ 0.03 %T 240 nm (Nal): ≤ 0.03 %T ≤ 0.03 %T 240 nm (Nal): ≤ 0.02 %T ≤ 0.000 A Baseline noise at 500 nm (RMS) ≤ 0.0001 A 590 × 690 × 290 mm Weight 22 kg	Optical Design			
Detector Two silicon photodiodes	Spectral Bandwidth		1.4 nm	
Spectrometric system	Light source		Combination of deuterium and halogen lamp	
Spectrometric system aspherical quartz-coated optics	Detector		Two silicon photodiodes	
Zero point transmission ± 0.05 %T (200–1000 nm; Slit 1.4 nm) Range 190–1100 nm Accuracy ± 0.1 nm (Deuterium line at 656.1 nm) Reproducibility ≤ 0.02 nm Registration speed Up to 12000 nm/min Min. data interval 0.02 nm Range -3 to 3 A Accuracy UV ± 0.010 A Accuracy Vis ± 0.003 A Reproducibility ≤ 0.0005 A Stray light 198 nm (KCI): 220 nm (Nal): ≤ 0.03 %T 240 nm (Nal): ≤ 0.03 %T 340 nm (NaNO2): ≤ 0.02 %T Baseline noise at 500 nm (RMS) ≤ 0.0001 A Dimensions (W×D×H) 590 × 690 × 290 mm Weight 22 kg	Spectrometric system			
Range	Baseline deviation		± 0.0005 A (200–1000 nm; Slit 1.4 nm)	
Accuracy	Zero point transmission		± 0.05 %T (200–1000 nm; Slit 1.4 nm)	
Wavelength Reproducibility ≤ 0.02 nm Registration speed Up to 12000 nm/min Min. data interval 0.02 nm Range -3 to 3 A Accuracy UV Accuracy Vis ± 0.010 A Reproducibility ≤ 0.0005 A Stray light 198 nm (KCI): 220 nm (Nal): ≤ 0.03 %T 240 nm (Nal): ≤ 0.03 %T 340 nm (NaNO2): ≤ 0.02 %T Baseline noise at 500 nm (RMS) ≤ 0.0001 A Dimensions (W×D×H) 590 × 690 × 290 mm Weight 22 kg		Range	190–1100 nm	
Registration speed Up to 12000 nm/min		Accuracy	± 0.1 nm (Deuterium line at 656.1 nm)	
Min. data interval 0.02 nm Photometric Range -3 to 3 A Accuracy UV Accuracy Vis ± 0.010 A Reproducibility ≤ 0.0005 A Stray light 198 nm (KCI): ≤ 0.3 %T 220 nm (Nal): ≤ 0.03 %T 240 nm (Nal): ≤ 0.03 %T 340 nm (NaNO2): ≤ 0.02 %T Baseline noise at 500 nm (RMS) ≤ 0.0001 A Dimensions (W×D×H) 590 × 690 × 290 mm Weight 22 kg	Wavelength	Reproducibility	≤ 0.02 nm	
Photometric Range -3 to 3 A Accuracy UV Accuracy Vis ± 0.010 A Beproducibility ≤ 0.0005 A Stray light 198 nm (KCI): 220 nm (Nal): ≤ 0.3 %T 220 nm (Nal): ≤ 0.03 %T 240 nm (NaNO2): ≤ 0.02 %T Baseline noise at 500 nm (RMS) ≤ 0.0001 A Dimensions (W×D×H) 590 × 690 × 290 mm Weight 22 kg		Registration speed	Up to 12000 nm/min	
Photometric Accuracy UV Accuracy Vis Reproducibility ≤ 0.0005 A Stray light 198 nm (KCl): ≤ 0.3 %T 220 nm (Nal): ≤ 0.03 %T 240 nm (Nal): ≤ 0.03 %T 340 nm (NaNO2): Baseline noise at 500 nm (RMS) Dimensions (W×D×H) \$\text{\$\text{500 nm}\$ (RMS)}\$ \$\text{\$\text{\$\text{\$0.001 A}\$}\$ \$\text{\$\text{\$\text{\$\$}\text{\$\text{\$\$}\text{\$\text{\$\$}		Min. data interval	0.02 nm	
Photometric Accuracy Vis ± 0.003 A Reproducibility ≤ 0.0005 A Stray light 50.3 %T 198 nm (KCI): ≤ 0.3 %T 220 nm (Nal): ≤ 0.03 %T 240 nm (Nal): ≤ 0.03 %T 340 nm (NaNO2): ≤ 0.02 %T Baseline noise at 500 nm (RMS) ≤ 0.0001 A Dimensions (W×D×H) 590 × 690 × 290 mm Weight 22 kg		Range	-3 to 3 A	
Stray light ≤ 0.3 %T 198 nm (KCI): ≤ 0.3 %T 220 nm (Nal): ≤ 0.03 %T 240 nm (Nal): ≤ 0.03 %T 340 nm (NaNO2): ≤ 0.02 %T Baseline noise at 500 nm (RMS) ≤ 0.0001 A Dimensions (W×D×H) 590 × 690 × 290 mm Weight 22 kg	Photometric			
198 nm (KCI): $\leq 0.3 \%T$ 220 nm (Nal): $\leq 0.03 \%T$ 240 nm (Nal): $\leq 0.03 \%T$ 340 nm (NaNO2): $\leq 0.02 \%T$ Baseline noise at 500 nm (RMS) $\leq 0.0001 \text{ A}$ Dimensions (W×D×H) $590 \times 690 \times 290 \text{ mm}$ Weight 22 kg		Reproducibility	≤ 0.0005 A	
Dimensions (W×D×H) 590 × 690 × 290 mm Weight 22 kg	198 nm (KCI): 220 nm (NaI): 240 nm (NaI):		≤ 0.03 %T ≤ 0.03 %T	
Weight 22 kg	Baseline noise at 500 nm (RMS)		≤ 0.0001 A	
	Dimensions (W×D×H)		590 × 690 × 290 mm	
Power requirements 85–264 V/AC, 50–60 Hz	Weight		22 kg	
I I	Power requirements		85–264 V/AC, 50–60 Hz	

Data according to the manufacturer, subject to change

Technical data DT 950 series

Height / Width / Depth	850 mm / 650 mm (without DH) / 650 mm	
Weight	42 kg	
Voltage	115/230 V; 50/60 Hz	
Fuses	2 A	
Protection class	I/EN 61140	
Protection type	IP 21/IEC 529	
Device details	USP methods 1 (Basket), 2 (Paddle), 5 (Paddle-over-disk) and 6 (Rotating Cylinder) with 6, 7 or 8 test stations (956, 957, 958) in 2 rows	
Speed	20-250 U/min	
Vessel volume	400 ml / 1000 ml / 2000 ml	
Operation	Touchscreen 7", 800x480 Pixels	
Sampling positions	High-head / Low-head / Cleaning mode	
Ambient temperature during operation	$+10~^{\circ}\mathrm{C}$ to $+30~^{\circ}\mathrm{C}$ (Ambient temperature min5 $^{\circ}\mathrm{C}$ below set temperature)	
Storage & transport temperature	+5 °C to +40 °C	
Relative humidity	25-80 % non condensing	
Interfaces	1x RS-232, 2x USB, 2x Ethernet/RJ45	
Compliance	100% USP/EP/JP compliant	
Heater	Power: 1500 W Temperature: 30-45° C (± 0.2)	

Technical data PVP x20

Pump	PVP 620/720/820	PVP 1220/1420	
Channels	6, 7 or 8	12 or 14	
Valves		-	
Accuracy	+/- 0.5 ml		
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		



Pittlerstr. 45 63225 Langen Germany E-Mail: sales@erweka.com
Phone: +49 6103 92426-200
Fax: +49 6103 92426-999

