Discover It Yourself

UV-Visible System

The Discover-It-Yourself UV-Visible platform provides a range of wavelengths and performance to get measurements up and running quickly. No matter where you start, DIY will help you find answers fast.

Spectrometers Optimized for Your Application
Find the right configuration fast with our pre-optimized tiers of spectrometers for UV-Vis measurements. The spectrometers are all designed with important parameters like Stray Light and Quantum Efficiency in mind to ensure value from entry level visible only systems to high performance UV-Visible systems.

Choose Your Tier
Multiple options make it easy to start. Each tier is built with your application in mind with proper sampling and light source recommendations.

Mounting Plate for Organized Setup
 The Discover-It-Yourself platform comes with a M6 optical plate to mount components. Setup the modules in the configuration from our recommendations, or build it yourself! No sample compartment is necessary as measurements are driven by fiber optic connections.

Ready-To-Go Sampling
 Our BCH100A cuvette holder accommodates any standard 10mm cuvette. Enhanced 400um fiber cables are available for the wavelength ranges in each tier. It's easy to add components, such as an in-line filter holder, with the available space on the plate.

Software
Metrohm offers both BWSpec® software and Software Development Kit (SDK) packages enabling solutions suited for various applications.

BWSpec®
Our general spectral data acquisition software. This software includes a wide range of tools, designed to perform measurements and calculations at the click of a button. It offers multiple data formats and allows users to optimize acquisition parameters such as integration time and spectral averaging. This also includes automatic calculations for Absorbance (AU) and Transmission (%).

Software Development Kit (SDK)
SDKs allow users to control the DIY systems through customized interfaces. Fundamental laser and spectrometer control for data acquisition, calibration, and transfer is possible. The SDK package is designed for 32 and 64-bit windows operating system and available for all our USB-based systems.

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Sample Applications

Quality Control
Concentration, Color, and many other parameters for repeatable accuracy.

Food and Agriculture
Food Safety, Seed Characterization and Diagnostics, Crop Quality

Pharmaceutical
API and Excipient Identification, In-Line Tablet Characterization

Semiconductor
Wet and Dry Supply Chain, Electrical Properties, Materials Matrix, Thin Film Characterization

Biomedical
Biopharmaceutical Growth Monitoring
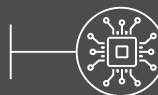
Research & Development
Method Development, Product Development Process Raman Integration

Spectrometer	Quest®	Glacier®	Exemplar®
Application	**VIS/NIR**	**UV/VIS**	**UV/VIS/NIR**
Coverage Range	350 to 1050 nm	200 to 800 nm	190 to 1100 nm
Slit Size / Resolution	25um / ~1.5 nm FWHM	25um / ~1.2 nm FWHM	25um / ~1.8 nm FWHM
Thermoelectric Cooling	n/a	14 °C (57.2°F)	0°C (32°F)
Detector Type	2048-element Front Illuminated Linear CCD Array	2048-element TE Cooled Front Illuminated Linear CCD Array	2048-element High Quantum Efficiency Back-Thinned CCD Array
Lamp / Lifetime	Tungsten-Halogen > 10,000 hrs	Deterium > 1,000 hrs Tungsten > 2,000 hrs	Deterium > 1,000 hrs Tungsten > 2,000 hrs
Light Source Coverage	350 to 1100 nm	200 to 1100 nm	200 to 1100 nm
Lamp Shutter	n/a	Built-In	Built-In
Sampling Connection	Cuvette Holder for 10 mm	Cuvette Holder for 10 mm	Cuvette Holder for 10 mm
Fiber Patch Cord Type	2 x 400 um, NIR grade 1.5 m long	2 x 400 um, UV grade 1.5 m long	2 x 400 um, UV grade 1.5 m long
Power Requirement	Spectrometer = 5V DC (USB) Light Source = 6V DC (Barrel Jack)	Spectrometer = 5V DC (Barrel Jack) Light Source = 12V DC (DIN-3)	Spectrometer = 5V DC (DIN-5) Light Source = 12V DC (DIN-3)
Standard Operating Software	BWSpec General Acquisition Windows 10/11	BWSpec General Acquisition Windows 10/11	BWSpec General Acquisition Windows 10/11

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