10 Things to Consider

When Purchasing a Microvolume UV/VIS Spectrophotometer



A great microvolume UV/VIS spectrophotometer should meet the following criteria:

- 1. Accurate measurements over the entire concentration range
- 2. **Reliable** and **robust** design including easy-to-clean surfaces
- 3. Transparent price including **no cost** for recalibration or maintenance throughout the instrument lifetime
- 4. Models available for single or multi sample throughput
- 5. State-of-the-art **software features** and **sample quality control**
- 6. Convenient and easy **data transfer** and **handling**
- 7. Fast measurement speed
- 8. Offers mobility
- 9. Small footprint and stand-alone design
- 10. **21 CFR Part 11 compliant software** for use in regulated settings available

NanoPhotometer[®]

- The best solution for scientists who need to quantify and qualify nucleic acids, proteins, bacterial cultures and more...
- Installations at global top 50 universities, research institutions, pharma and biotech companies
- Featured in more than 8,000 peer-reviewed publications
- Patented technology and design
- Made in Germany

Implen GmbH

- Dedicated German manufacturer of microvolume UV/VIS spectrophotometers since 2006
- ISO 9001:2015 certified company



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1. Accurate measurements

Accuracy of the readings is crucial: therefore, the Implen NanoPhotometer[®] uses patented Sample Compression Technology[™] to provide precise results especially for samples with low surface tension like proteins. Furthermore, due to the compression, evaporation effects are reduced to a minimum, improving reproducibility of a measurement as the sample is enclosed in a sealed environment.

2. Reliable and robust design

The NanoPhotometer[®] has been designed to be robust and is manufactured using precise parts made off high quality materials like quartz glass. Therefore, it is easy to clean after a measurement using only a lint-free tissue. 70% ethanol may be used to ensure removal of pathogens or sticky proteins to prevent cross-contamination as well as disinfecting the entire instrument by wiping the surfaces.

3. No hidden cost for maintenance

Implen stands for first class laboratory devices Made in Germany. We guarantee that no recalibration of the optic components or regular maintenance is required over the entire life time of a NanoPhotometer[®]. Our patented True Path Technology[™] means no hidden after-purchase cost, ever. There aren't even service plans available. The integrated self-test ensures that the device is always ready for operation. Together, they provide peace of mind that the instrument is measuring properly.

4. Single or multi sample throughput

The Implen NanoPhotometer[®] is available as single or multi-sample models. For single samples, Implen offers models with cuvette (C40) and microvolume (N50/ N60) only; as well as a combination of both (NP80) for utmost flexibility in terms of sample application. A microvolume spectrophotometer should not be the bottle neck in molecular biology workflows. If higher throughput is required, the NanoPhotometer[®] N120 is capable of scanning up to twelve samples in a row within just 20 seconds, enabling scientists to swiftly measure hundreds of samples per day.

5. Software features and sample quality control

The NanoPhotometer[®] has one of the most modern and convenient user interfaces for laboratory equipment. Our Linux-based NPOS offers a secure environment immune to known malware. Additionally, one-click method access makes it easy even for unexperienced users to operate the instruments without extensive training. Further features like blank and sample control as well as air bubble recognition provide warnings if contaminations or impurities within the sample have been detected - providing outstanding quality control for downstream applications like qPCR or NGS.

6. Convenient and easy data transfer and handling

Various options to connect a NanoPhotometer[®] are available like Windows/Mac computers as well as iOS/ Android tablets and smartphones. Additionally, it offers full LIMS integration with any software provider. Data is provided as secure non-changeable data, as well as Excel and PDF files, including a graph and values for each sample making it ready for immediate statistical analysis.

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7. Fast measurement speed

Time is always scarce in the lab; therefore, a full scan measurement on an Implen NanoPhotometer[®] is done in just 2.5 - 4.0 seconds (C40, N50/N60, and NP80) or 1.7 seconds (N120) per sample providing the fastest scan speed for higher throughput capabilities.

8. Offers mobility

Battery option frees the scientist from the lab bench. Measure without disturbing cables in incubators as well as under fume hoods, lamina flows if a clean environment is required. The NanoPhotometer[®] can easily be taken anywhere and shared between labs.

9. Small footprint and stand-alone design

The NanoPhotometer[®] has the smallest footprint in its class at just 20 x 20 x 12 cm which saves precious space on the lab bench. Due to its small size and battery option, the NanoPhotometer[®] is also ready to use in and outside any laboratory setting. The integrated touchscreen for stand-alone operation makes a connected computer obsolete saving even more lab space.

10. 21 CFR Part 11 compliant software

A dedicated 21 CFR part 11 compliant software with full control of all stored data is available for the NanoPhotometer[®]. The software offers secure user accounts, electronic signatures, audit trail, and data backup. Therefore, it is fully compliant with FDA requirements in GLP/GMP research settings. A lifetime license including updates provides transparency with no hidden after-purchase costs.



