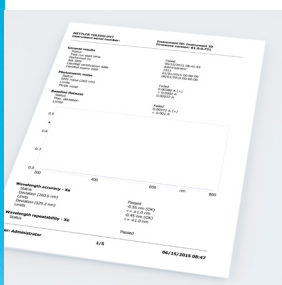


# Simplify Performance Verification



### Regulatory compliance

With regular performance verification you can always be sure that your instrument is working properly and that your results are accurate and reliable. The performance verification tests are US and European Pharmacopeia compliant and include photometric accuracy, wavelength accuracy, resolution and stray light.

### Error-free evaluation

All nominal data required for evaluation are electronically stored on the CertiRef module and are automatically compared to the test results. User calculations, manual data entry from certificates, and therefore the risk of error are completely eliminated.

### Automatic report generation

At the end of the verification test, a detailed report of all results is generated, including evaluation and comparison with test acceptance criteria as required by Pharmacopeia. The report can be printed or electronically exported. For comparison with previous test results, the test history includes all relevant data and allows a trend analysis.

### Easy installation and use

The Plug & Play CertiRef module is easily installed in seconds. The instrument automatically recognizes the module, retrieves all certification data and is immediately ready to start the performance verification method. The module can remain mounted on the instrument during routine measurements, or can be easily removed for use on other instruments.



### Automatic Performance Verification with CertiRef™

For UV7, UV5 and UV5Bio Spectrophotometers

With increasing demands for time-consuming performance verification in regulated laboratories, the CertiRef module offers a fully automated Pharmacopeia-compliant solution. The performance checks are easily started with One Click™ and are automatically carried out using certified reference materials. All certificate data are securely stored on the CertiRef module, test results are automatically evaluated and a comprehensive report is generated. Precious time is saved and errors due to manual analysis are avoided. The CertiRef offers many advantages for performance verification:

- Regulatory compliance
- Error-free evaluation
- Automatic report generation
- Easy installation and use
- Direct Bio measurements and specific methods

## CertiRef Specifications

- The CertiRef module includes certified reference materials (CRMs) contained in flame-sealed cuvettes. The CRMs are protected by the housing against light and damage to enable long-term use.
- All CRMs are traceable to the National Institute of Standards and Technology (NIST) primary standards. They are manufactured within an environment which is UKAS accredited to ISO Guide 34 (4001) and ISO 17025 (0659).
- The CertiRef module can be re-certified. The certificate is valid for a maximum period of two years from the date of issue or sooner if specified by the user's own protocols.
- The CRM certificates are electronically stored on the CertiRef module and also on an accompanying USB stick.
- The CertiRef USP configuration complies with the new spectroscopy chapter <857> of USP 39 on ultra-visible spectroscopy. It includes the new stray light test based on measuring both a 5 and a 10 mm cuvette of KCl solution as a cutoff filter of the same concentration.



**Inside CertiRef**  
Sealed CRM cuvettes

## Performance tests and certified reference materials of the CertiRef configurations Ph.Eur. and USP

	Reference Material	CertiRef EUP	CertiRef USP
Photometric noise	(air)	•	•
Photometric drift			
Wavelength accuracy			
with internal Xenon lamp			
Wavelength repeatability with			
internal Xenon lamp			
Photometric accuracy			
Photometric noise	Toluene blank	•	•
Photometric drift			
Baseline flatness	Toluene	•	•
Resolution	Holmium oxide	•	•
Wavelength accuracy	Potassium dichromate blank	•	•
Wavelength repeatability			
Photometric accuracy	Potassium dichromate	•	•
Photometric repeatability	Potassium chloride blank	•	
Stray light Ph.Eur.	Potassium chloride	•	
Stray light USP	Potassium chloride 0.5 cm		•
	Potassium chloride 1.0 cm		•

