

UV Calibration, certified sensors for water disinfection

UV calibration according to DVGW W 294 (2006)/ ÖNORM M 5873

▶ 1/1

▶ GENERAL INFORMATION

Calibration object: UV sensors manufactured according to DVGW W 294 (2006)/ ÖNORM M 5873

Calibration references: Current sensors acc. to DVGW/ÖNORM, traceable calibrated according to the calibration standard of the National Metrology Institute (PTB)

UV sources: UV radiation reference systems with mercury low pressure lamps or mercury medium pressure lamps

Measurement error: 5% (low pressure) / 10% (medium pressure)



▶ SERVICES

According to DVGW W 294 (2006) or ÖNORM M 5873, systems for UV disinfection have to be controlled by UV sensors for microbicidal weighted UV irradiance. The structure is defined therein. In order to calibrated DVGW/ÖNORM sensors regarding to their microbicidal weighted sensitivity, sglux uses reference radiation systems with mercury low pressure or medium pressure lamps. In cooperation with the National Metrology Institute (PTB) and the Water Technology Center (TZW), this system has been developed. DVGW/ÖNORM sensors can be measured with a calibration standard under defined radiator geometry. Traceable calibrated references and spectroradiometers control the system and the current irradiance.

The calibration service is performed according to DAkkS-DKD-MB-3.

▶ MEASUREMENT INSTRUMENTS

UV sources: - calibration standard mercury medium pressure lamp for the calibration of DVGW/ÖNORM sensors
- calibration standard mercury low pressure lamp for the calibration of DVGW/ÖNORM sensors

Reference sensors: DVGW 160°, DVGW 40°, ÖNORM (electric current and digital)

Measurement instruments: sglux reference radiometer, UVTOUCH radiometer

¹ The measurement error is determined according to „Guide of expression of uncertainty in measurement“ (GUM).