

Secondary standards for calibration control

Monitoring instruments in any application such as turbidity measurement require a periodical check for assuring correct measurement. Instruments with lower performance show significant drift that requires a regular calibration procedure, high quality monitors such as the AquaScat from SIGRIST-PHOTOMETER operate virtually drift free. However for quality assurance reasons there is often the need for checking of the performance as certified ISO 9001 operators typically prescribe mandatory verifications of their metering equipment.

Turbidity monitors for potable water according to IEC 27027 are factory calibrated with formazine to display the values in FNU (Formazine Nephelometric Units). Establishing a calibration check with formazine is not a desirable procedure for various reasons: formazine is cancerogenous and has a limited shelf time. It's also sometimes difficult to obtain, and its preparation is critical requiring laboratory trained personnel.

A simple way of avoiding the use of formazine is by use of secondary standards for calibration checks. Glass bodies made of long term stable materials also used in space technology offer a fast, easy and reliable method to recalibrate turbidity monitors. The AquaScat offers the calibration unit either as a separate item or as a built-in element allowing automated calibration check. This will assure reliable measurements and reduce operator intervention, both achievements that are highly appreciated by many water works staff.

Checking units with secondary standards are available for all turbidity monitors of SIGRIST-PHOTOMETER.



Checking unit with secondary standard
Example TurBiScat