

7000RMS Commissioning

Reliable Microbial Monitoring

Commissioning of the 7000RMS on-line microbial detection analyzer consists primarily of three procedures: installation verification, operational verification, and calibration. This document highlights the activities performed by the METTLER TOLEDO service technician at the customer site to fully commission the 7000RMS analyzer after installation. It also describes the benefits of scheduling annual preventive maintenance for the 7000RMS analyzer.

Procedure 1: Installation Verification

Verification is a crucial procedure to help assure correct installation of your analyzer. Tasks include verifying correct placement of the 7000RMS anti-vibration mounting shelf, keyboard with mousepad, and tubing on the external fluidic tray. Additionally, the service technician will verify that the date and time on the PC are set to the correct time zone and that the end of the waste tubing is exposed to the atmosphere before directing wastewater into the facility's drain.



Field service engineer is commissioning the 7000RMS installed on the water system skid.

Procedure 2: Operational Verification

Operational verification aims to verify the operation and accuracy of the 4-20 mA outputs on the 7000RMS. The Auto-Fluorescent Unit (AFU) values from the 7000RMS can be converted and output into a 4-20 mA analog signal so that a Process Logic Controller (PLC) can read and record the measurements appropriately.

Procedure 3: Calibration

Calibration verifies that the 7000RMS operates with an accurate flow rate and detection capability. During this procedure, the service technician:

1. Verifies the flow rates in on-line mode based on incoming process water pressure.
2. Rinses and cleans the internal tubing with a cleaning agent appropriate for the tubing material.
3. Calibrates and verifies analyzer performance with proprietary solutions containing fluorophores that are as close as possible to microorganisms typically found in the water environment. The solution concentrations used to calibrate and verify analyzer performance consist of approximately 2000 AFU/mL and 1000 AFU/mL fluorophores, respectively.

After commissioning, the service technician produces a checklist that verifies completion of the installation procedure and issues a certificate containing information regarding the operational verification and calibration of the 7000RMS.

Annual Preventive Maintenance

Annual Preventive Maintenance by a METTLER TOLEDO service technician is advised to help ensure that your analyzer continues to perform at its best. During this important service, worn-out parts such as external fluidic units and filters are replaced (if necessary). Fittings are then tightened, the analyzer is restarted, and the unit is calibrated using METTLER TOLEDO 7000RMS calibration solutions as noted above.