

Tekran Model 3400-ANLZ

Rev. 120821



Electronics Platform

- USB communications port with terminal interface
- Embedded microprocessor for autonomous control
- Simplified design for integration into 3400 HgCEM monitoring system

Detector

- High sensitivity CVAFS detector with superior stability
- Determination of mercury levels in ng/m^3 - $\mu\text{g/m}^3$ range
- Upgraded lamp stabilizer and detector electronics
- Easy cuvette removal via convenient fitting interface
- Digital PMT control

Cartridge / Valve Assembly

- New valve assembly with low dead volume
- Constant power heater control insures consistent temp over heater life
- Faster cool down time with independent high-velocity channelled fans

Physical Layout

- Reduced height from 4U (7") to 3U (5.25")
- Improved component accessibility for routine maintenance



Back Panel Descriptions

- | | |
|--------------------------|---------------------------------|
| 24 V Power Ports (2) | Analog Chart Outputs (2) |
| Regulator Adjustment (1) | RS-485 Ports (2) |
| RS-232 Serial Output (1) | Digital Inputs (1) |
| Dilution MFC Input (1) | Pressure Sensor Display (1) |
| Cooling Fan Ports (2) | Sample & Gas Inputs/Outputs (4) |

Specifications (Beta)

- Analyte: TGM (Total Gaseous Mercury) with speciation upgrades to the 3400-COND Sample Conditioner in a 3400 system.
- Principle: Gold pre-concentration with atomic fluorescence detection.
- Sensitivity: < 0.1 ng/m³ (5 min samples)
- Sampling Cycle: 90 s – 60 min (90 s - 5 min recommended)
- Sampling: Continuous (no data stream gaps)
- Outputs: See above
- Sample Flow: 0.2 – 2.0 L/m
- Flow Totalization: Precision mass flow controller (MFC)
- Carrier Gas: Argon
- Consumption: ~300 L/day (full size tank lasts 5 to 6 weeks)
- Argon Flow Setpoints:
- Carrier Flow – 100mL/min
 - Cartridge Flush – 100mL/min
 - Detector Purge – 10mL/min
- Calibration: System calibration using internal mercury source.
- Physical: Self-contained, 19" rack mountable (3U height)

Tekran equipment is manufactured under several U.S., Canadian and International patents and patents pending.