APEX INSTRUMENTS

WORLDWIDE LEADER OF SOURCE SAMPLING EQUIPMENT

▷ **STM-6000RM**

AUTOMATED MERCURY SAMPLING CONSOLE

The **STM-6000RM Automated Mercury Sampling Console** captures all data necessary for paired sorbent trap sampling in accordance with PS 12B or Method 30B by simplifying sampling requirements through the automation of data acquisition, sample flow adjustments, leak checks, calculations, temperature control, and calibrations. Data is easily transferred to a Windows-based PC through Ethernet and can be monitored remotely through Modbus connectivity. The meter console controls the sample flow rate proportional to the stack flow rate and determines the standardized volume extracted through each sorbent trap. Designed with easy access to internal components for field service and maintenance.
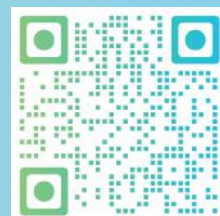

STM-6000RM
Automated Mercury Console
(Shown in CR-20U MercSampler Rack Mount Cabinet.
Including the TEC-4000 HG Thermoelectric Gas Cooler)

Reliable, Efficient, and Long-Lasting. The Whole Package.

Features

- User-friendly software and firmware
- Easy data export (text and CSV files)
- Configurable system alarms (dry contact or software)
- Remote input for external test pause and resume
- Packaging options:
  - Mounts into standard 19" rack
  - Adaptable environmental enclosures (climate controlled & weatherproof)

- Built for easy maintenance access with drawer slides for convenient serviceability
- Integrated real-time data display and status display
- Configurations available and I/O connections either front or rear

APEX INSTRUMENTS

▷ STM-6000RM
AUTOMATED MERCURY SAMPLING CONSOLE

Specifications

Dry Gas Meters:
- Model SK25EX series
- Positive displacement type
- 0.7 liter per revolution
- Optical encoder sensor with quadrature pulse output

Sample pumps:
- Double-headed
- EPDM diaphragms
- Maintenance-free brush-less motor
- 12 VDC
- 220 mbar ultimate vacuum at 1 atmosphere
- 10,000 hour MTBF

Sample Flow Control:
- Stainless steel sample manifolds fitted with mass flow sensors, vacuum sensors, and proportional valves
- Proportional or constant flow sampling
- Mass airflow: proportional flow control, 250 to 2000 ccm, port-style, manifold mount
- Proportional valve: voltage-sensitive orifice (VSO), 12 VDC

Main Board
- RISC-based microcontrollers; main and digital signal processing (DS), a real-time clock with auto backup and write protection to external SRAM
- High Speed A/D converter with DSP
- SD memory card for data storage – stores up to 99 tests (30-day test runs each), embedded Ethernet Port with full TCP/IP protocol and 256-bit encryption (optional)

Sensor Board
- Accepts 8 type-K thermocouple inputs
- Each channel is fully isolated up to 1.5KV
- Integrated barometric pressure sensor
- Integrated vacuum sensor
- Integrated pressure transducers (optional)

Barometric pressure: 600-1100 mbar, 17.7-32.4 inHg, temperature-compensated

Vacuum: 0-30 inHg, 0-101 kPa, 2% accuracy

Integrated Temperature Control: Integrated probe/trap heater control output up to 10-amps combined

Communications:
- PC user interface via Ethernet and/or USB
- Remote access and control via onboard configurable router to owner's network computer
- Optional TCP/IP MODBUS (ASCII or RTU) communications to the DAS
- Optional Interface to DAS system via TCP/IP Modbus

Weight: 34 lbs (15.5 Kg)

Dimensions: (HxWxD) 14" x 17" x 11.25" (35.56 cm x 43.18 cm x 28.58 cm)