

Smart Extractive System

## Smart Extractive System

Remotely troubleshoot and view/clear alarms

### Special Features

- Fully integrated microprocessor based extractive sample system
- Touch panel (HMI) display for operator-control, trending and alarms (logged)
- Remote server access for both SHS & analyzers: control, status & alarms
- Email critical alarms – to the technician
- Modbus TCP/IP communications, fiber optics also available
- Modbus communications to analyzers
- Validations, % drift calculation & reporting
- Alarms for low CG press & leak detect
- Bias check routine & alarming
- Heated filter temp/blow-back control
- Sample line temp control & alarm
- 2-Channel 7 Liter/min Peltier Chiller
- Water Slip & Alarms – interrupts pump
- Quiet variable speed sample pump
- System integrated into a 4X fiberglass enclosure or wall mount SS or AI Plate

### Application

The M&C Extractive System is designed for any CEMS & process gas sampling for industries such as:

Refineries, Chemical, Power Generation and several others requiring a reliable, clean and dry sample gas for analysis.

The microprocessor system offers server based remote viewing and control (mimics local HMI) of parameters such as system status; probe, HSL, & chiller temperatures; validations; analyzer values and status.

### Description

The M&C Extractive System serves as a reliable, totally pre-designed, integrated sampling system, which continuously provides a clean and dry gas sample for CEMS & process control analysis.

Emails can be sent to alert the responsible Technician, or supervisory personal of system critical alarms.

M&C's technician-friendly design allows for remote troubleshooting from their desk (or anywhere) of system and analyzer parameters before heading for the Analyzer Shelter. Remotely checking of Alarm Log & resetting of Alarm Log, Calibration Gases

introduced, Pressures checked and Validations Drift Verified & Re-Initiated remotely.

Unique sample system design includes double block & bleed, with leak detection of calibration gases; and quiet variable (PID) speed pump to maintain 5 psig sample pressure, (no regulators required, long diaphragm life). All monitored & alarmed.

The Smart System can optionally include NIST traceable, Precision Mass Flow Controllers to blend on-demand any number of calibration gases (both pure and pre-blended) to perform a wide range of gas combinations for analyzer validations and calibrations. The component gas blend percentages are fully adjustable thru the Smart System HMI. Now there is no longer a need for a bank of pre-blended gas bottles as all of your calibration/verification gas combinations can be generated as required with accuracy to 0.8% (0.4% optional) of the reading. Eliminate the hassle of ordering pre-blended gas bottles with this optional feature.

Additional options include:

- Environmentally controlled enclosure
- Remote access/control via PC (Server Based), tech pad or smart phone
- Custom PLC programming to suit your requirements
- Blend calibration gases on-demand

### Service and Support

World Class service and support are not just buzz words at M&C. Support and service can easily be obtained by calling 805-654-6970.

Depending upon your needs, you will be connected to the appropriate solution source.



**DAS**  
Data Acquisition System



**ALLEN BRADLEY**  
MICRO 850



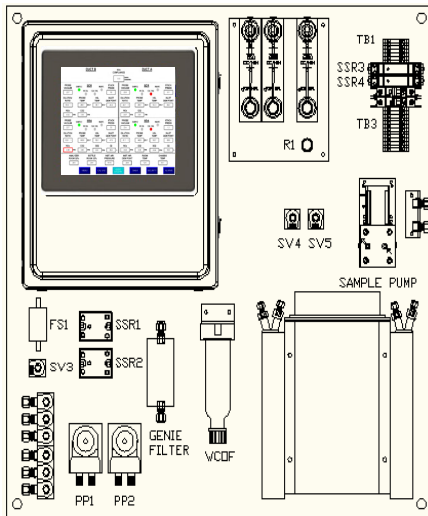
**Sick Maihak**  
Extractive Gas Analyzers



**Thermo Environmental**  
Extractive Gas Analyzers



**Modbus TCP/IP**  
Controls/Monitors/Alarms SHS



Probe/HSL Temp Control  
Blow Back Control

Modbus  
Can be Slaved to DAS

Modbus  
Analyzer Values & Status

Modbus  
Analyzer Values & Status

Remote  
Access



**Supported Analyzers are, but not limited to:**  
ABB – API – CAI – Sick – Teledyne M/L  
Thermo Environmental

**Technical Data**

Flow Rate	7 Liter/min 15% Moisture
Enclosure Dimensions	30" (H) X 30" (W) X 10" (D) or enclosure
Weight	85 lbs
Mounting	Wall Plate, NEMA 4X Enclosure or Rack Mount
Ambient Temperature	Min: 40F Max: 110F (if un-insulated)*
Micro-Processor	Allen Bradley 850
Communications	TCP/IP, Modbus (Fiber Optics Optional)
Remote Access	Anywhere with Web Access
Power	115VAC 5 Amps, other supply voltages available

\*Standard. Other configurations available upon request