



MODEL SMAC-PRO

Description

The sMAC-PRO™ master control panel provides a quick and easily deployable solution for installations in need of automated blower sequencing and process control. By interfacing with multiple process variable inputs the sMAC-PRO™ can provide automated sequencing of the blowers as well as automated control of system flow control valves, thereby giving you fully automated control of the entire aeration process. The sMAC-PRO™ utilizes Most-Open-Valve (MOV) control philosophies to minimize system pressure and significantly reduce operating costs. The system is fully configurable to fit your application and has additional features such as remote monitoring and control capability, ethernet or hardwired connectivity, and a 15" touch screen interface.

Control Options

Control Methods	Blower Sequencing + Process Control via Aeration Flow Control Valves
Control Modes	DO, Ammonia, Flow, Pressure



Available Protections & Functionality

Process Control via DO and Ammonia	Communication Monitoring
Aeration Zone Valve Control	Equipment Monitoring
Aeration Zone Flow Meter Monitoring	Header Temperature Monitoring
Equipment Sequencing	Header Pressure Monitoring
Run Time Balancing	Header Blow-Off Valve Control

Documentation, Testing & Startup Services

Operation Manuals
System Integration Support Documents
Factory Acceptance Testing (witnessed available)
Installation Support
Commissioning & Training



Standard Panel Specifications*

		Other Product Features
Approvals	UL/ULC 508A	High-Resolution Analogs
Warranty	Lifetime Warranty with Standard Hardware	LED Fuse Blocks
Enclosure Size	36H x 30W x 10D	120V Convenience Outlet
Enclosure Rating	TYPE 4	Ethernet Switch
HMI	15" Phoenix Contact WP 6156-WHPS	Electrical Surge Protection
PLC		Isolated Instrument Ground
Model	Phoenix Contact PLCnext AXC F 3152	Available Options
Programming Software	PLCnext Engineer (Free Software)	Alternate PLC Brand (Allen Bradley, Siemens, Schneider, Other)
CPU	Intel Atom™ x5-E3930, 2x 1.3GHz	Alternate HMI Brand (Allen Bradley, Siemens, Schneider, Other)
Internal Memory	1GB	Type 4X or Type 12 Enclosure
Expansion Memory	SD Card - 2GB	Hinged HMI Cover
Communications	Profinet, EtherNet/IP, Modbus TCP, MQTT, OPC UA (more options available)	Interior Light
Ethernet Connections	x3 RJ45	Alarm Beacon or Siren
Operating Temperature	-25°C to 60°C	Pilot Devices - Push Buttons, Switches, or Indicator Lights
I/O		Ethernet Switch - Managed or Unmanaged
Discrete Inputs	x16	Cooling - Fans, Vortex Cooler, or Panel Mount A/C
Discrete Outputs	x16	Panel Heater
Analog Inputs	x40	Purge Systems
Analog Outputs	x12	Other Approval Ratings

* Information is approximate and can change without notice

* Air Performance Based on 1 Atm, 68F/20C, 36% RH and 3550 rpm