

## 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 sMACPRO™ 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\*

Approvals	UL/ULC 508A
Warranty	Lifetime Warranty with Standard Hardware
Enclosure Size	36H x 30W x 10D
Enclosure Rating	TYPE 4
HMI	15" Phoenix Contact WP 6156-WHPS
<b>PLC</b>	
Model	Phoenix Contact PLCnext AXC F 3152
Programming Software	PLCnext Engineer (Free Software)
CPU	Intel Atom™ x5-E3930, 2x 1.3GHz
Internal Memory	1GB
Expansion Memory	SD Card - 2GB
Communications	ProfiNet, EtherNet/IP, Modbus TCP, MQTT, OPC UA (more options available)
Ethernet Connections	x3 RJ45
Operating Temperature	-25°C to 60°C
<b>I/O</b>	
Discrete Inputs	x16
Discrete Outputs	x16
Analog Inputs	x40
Analog Outputs	x12

### Other Product Features

High-Resolution Analogs
LED Fuse Blocks
120V Convenience Outlet
Ethernet Switch
Electrical Surge Protection
Isolated Instrument Ground
<b>Available Options</b>
Alternate PLC Brand (Allen Bradley, Siemens, Schneider, Other)
Alternate HMI Brand (Allen Bradley, Siemens, Schneider, Other)
Type 4X or Type 12 Enclosure
Hinged HMI Cover
Interior Light
Alarm Beacon or Siren
Pilot Devices - Push Buttons, Switches, or Indicator Lights
Ethernet Switch - Managed or Unmanaged
Cooling - Fans, Vortex Cooler, or Panel Mount A/C
Panel Heater
Purge Systems
Other Approval Ratings

\* Information is approximate and can change without notice

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

