sLOC-MC™

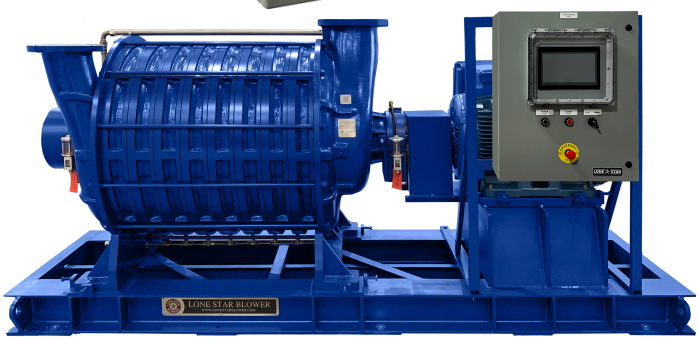
MSCB Throttle Valve Controls

Multistage Blower - Throttle Valve Control

Description

The sLOC-MC™ is designed for users looking for actuated inlet throttle valve control and to protect and monitor the full health of their multistage blower installation. This control package is fully configurable to fit your application and has additional available features such as remote monitoring and control capability, ethernet or hardwired connectivity, and a 10" touch screen interface.

Lone Star Blower and Compressor has developed state of the art surge prediction and detection algorithms which are included with every sLOC-MC™ local control panel. Combined with active surge avoidance techniques, these added protections surpass what is offered by other market participants and ensure maximum reliability and system up-time.



Control Methods

Primary: Actuated Inlet Throttle Valve
Auxiliary: Actuated Blow-Off Valve or Recirculation Valve

Control Modes

Capacity %, Discharge Pressure, Other Process Variable

Available Protections & Functionality

Active Surge Avoidance
Surge Prediction & Detection
Complete Blower Monitoring from Any Instrument
Blow-Off / Recirculation Valve Control

Documentation, Testing & Startup Services

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

Standard Panel Specifications*

***Customization may affect the standard listed specifications**

Approvals	UL / ULC 508A
Warranty	Lifetime Warranty with Standard Hardware
Enclosure Size	30H x 24W x 10D
Enclosure Rating	TYPE 4
HMI	10" Phoenix Contact WP 6101-WXPS

PLC

Model	Phoenix Contact PLCnext AXC F 2152
Programming Software	PLCnext Engineer (Free Software)
CPU	Arm® Cortex® A9 2x 800 MHz
Internal Memory	512MB
Expansion Memory	SD Card - 2GB
Communications	ProfiNet, EtherNet/IP, Modbus TCP, MQTT, OPC UA (more options available)
Ethernet Connections	x2 RJ45
Operating Temperature	-25°C to 60°C

I/O

Discrete Inputs	x16
Discrete Outputs	x16
Analog Inputs	x16
Analog Outputs	x4
RTD Inputs	x8

Other Product Features

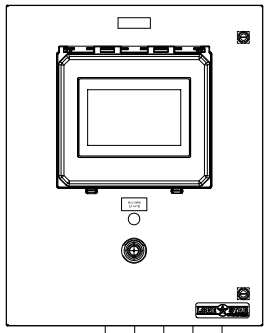
E-Stop & Status Light
High-Resolution Analogs
LED Fuse Blocks
120V Convenience Outlet
Electrical Surge Protection
Isolated Instrument Ground

Available Options

Alternate PLC Brand (Allen Bradley, Siemens, or Schneider)
Alternate HMI Brand (Allen Bradley, Siemens, or Schneider)
Type 4X or Type 12 Enclosure
Freestanding 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

RECOMMENDED CONTROL PANEL

sLOC–MC–ADVANCED
- 30x24x10 ENCLOSURE
- PLCnext AXC F 2152 PLC
- 10" TOUCHSCREEN HMI
- ETHERNET COMMUNICATIONS
- x16 DISCRETE INPUTS
- x16 DISCRETE OUTPUTS
- x16 ANALOG INPUTS
- X4 ANALOG OUTPUTS
- x8 RTD INPUTS



ETHERNET COMM.

PROCESS INPUT VARIABLE

RUN COMMAND

RUN FEEDBACK

FAULT INDICATION

MOTOR STARTER

ATMOSPHERE OR PROCESS

INLET FILTER

PDT

TYPICAL OF ALL ELECTRIC ACTUATORS SHOWN

ZSC ZSO ZC ZT YI (FAULT) HS (L/R) HS (O/S/C) ZI

E

INLET THROTTLE CONTROL VALVE

PT

TT

IT

TE TE TE TE TE

VT VT

SPACE HEATER

MAIN MOTOR

JY

COUPLING

FLEXIBLE CONNECTION

FLEXIBLE CONNECTION

TT TT

VT VT

BLOWER

TO PROCESS

DISCHARGE ISOLATION VALVE

E

CHECK VALVE

E

BLOW–OFF VALVE

BLOW–OFF SILENCER

ATMOSPHERE

PT

TT

IT CURRENT TRANSMITTER	HS HAND SWITCH	ZSO POSITION SWITCH OPEN	ZSC POSITION SWITCH CLOSE	ZT POSITION TRANSMITTER	ZC POSITION COMMAND	ZI POSITION INDICATION	PI PRESSURE INDICATION
PT PRESSURE TRANSMITTER	PDT PRESSURE DIFFERENTIAL TRANSMITTER	TE TEMPERATURE ELEMENT	TT TEMPERATURE TRANSMITTER	VT VIBRATION TRANSMITTER	YI STATE INDICATION	JY POWER RELAY	E ELECTRIC ACTUATOR

NOTES:
1) COMMON INSTRUMENTS SHOWN. INSTRUMENTS CAN BE CHANGED TO SUIT APPLICATION.
2) CONTROL PANEL WILL INTERFACE WITH MOTOR STARTER FOR START/STOP CONTROL.
3) BLOW–OFF VALVE IS OPTIONAL AND NOT REQUIRED FOR ALL INSTALLATIONS.

LONE STAR BLOWER

TITLE

MSCB P&ID

THROTTLE VALVE CONTROL

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