



sLOC-MC™

MSCB Vacuum Valve Controls

Multistage Blower - Vacuum Valve Control

Description

The sLOC-MC™ is designed for users looking for actuated vacuum 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 Vacuum Control Valve

Auxiliary: Actuated Blow-Off Valve or Recirculation Valve

Control Modes

Capacity %, Inlet Vacuum, 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

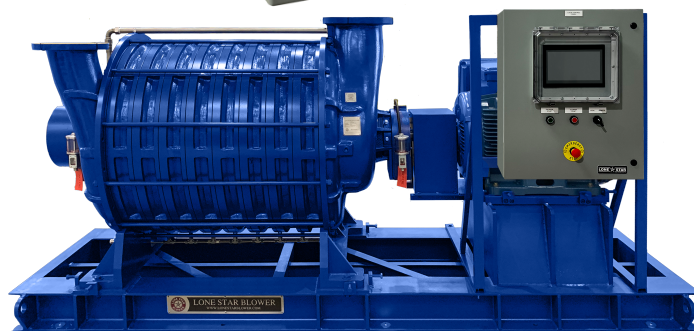
Operation Manuals

System Integration Support Documents

Factory Acceptance Testing (witnessed available)

Installation Support

Commissioning & Training



Standard Panel Specifications*

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

Standard I/O

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

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

Other Product Features

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

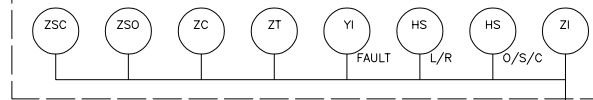
Available Options

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

TYPICAL OF ALL ELECTRIC ACTUATORS SHOWN



E

TO
PROCESS

DISCHARGE
ISOLATION
VALVE

CHECK
VALVE

PT

TT

FLEXIBLE
CONNECTION

TT

VT

PROCESS

E

ATMOSPHERE
OR PROCESS

VACUUM
CONTROL
VALVE

PT

TT

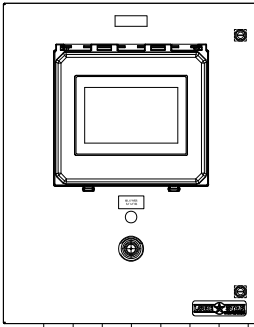
FLEXIBLE
CONNECTION

TT

VT

COUPLING

BLOWER



ETHERNET COMM.

PROCESS INPUT VARIABLE

RUN COMMAND

RUN FEEDBACK

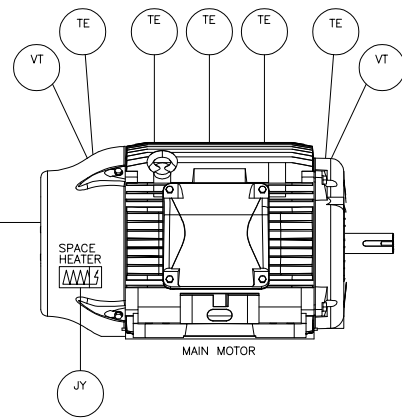
FAULT INDICATION

SPEED COMMAND

SPEED INDICATION

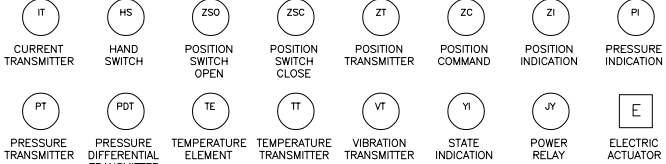
MOTOR AMPS

VFD / MOTOR STARTER



MAIN MOTOR

JY



- NOTES:
- 1) COMMON INSTRUMENTS SHOWN. INSTRUMENTS CAN BE CHANGED TO SUIT APPLICATION.
 - 2) CONTROL PANEL WILL INTERFACE WITH VFD OR MOTOR STARTER FOR START/STOP/SPEED CONTROL.



LONE STAR BLOWER

TITLE

MSCB P&ID

VACUUM CONTROL

SHEET 1 OF 1

REV 1