



Mustang Sampling[®]

Mustang[®] Modular Sample Control Panel Installation, Operation & Maintenance

MMSCP[®]



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SAFETY WARNINGS



Failure to abide by any of the safety warnings could result in serious injury or death.

- Electrical power must be “OFF” before and during installation and maintenance or personal injury may result.
- Do not exceed any equipment pressure ratings.
- MHR™ and MJTHR™ surface temperature will approach temperature limit specified in technical specifications. Gloves may be required for set point adjustments.
- Select a mounting location so that the enclosure will not be subjected to impact by heavy objects. Impacts can damage enclosed devices.
- The hazardous location information specifying class and group listing of each instrument enclosure is marked on the nameplate of each enclosure.
- All unused conduit openings must be plugged. Plugs must be a minimum of 1/8” thick and engage a minimum of five full threads.
- Use care to prevent dirt, grit, or other foreign material from lodging on threads. If any such material settles on these threads, clean them with an approved solvent (to avoid the possibility of an explosion, oxidation, and corrosion, do not use gasoline or similar solvent), then relubricate with an approved thread lubricant.
- Do not use Teflon® tape or pipe dope on gland connection to the hazardous area rated enclosures.

PRODUCT DESCRIPTION

The Mustang Modular Sample Control Panel (MMSCP®) uses Analytically Accurate® technology to deliver a representative sample to an analyzer. The sample is controlled with a regulator and membrane filter to reduce pressure and remove entrained liquid and particulates. A continuous bypass ensures a sample is quickly supplied to the analyzer for optimal performance.

APPLICATION

The MMSCP is primarily used within the Natural Gas industry to supply a low pressure gas sample from a single source.

The compact, modular design of the MMSCP facilitates easy maintenance and replacement of failed components. With a small footprint, the MMSCP allows easy retrofitting of existing analyzers in a plug and play format.

FEATURES

- Low internal volume
- Small footprint
- Straight through Bypass
- Built-in membrane retention
- Fluted metering tubes facilitate stable, accurate readings

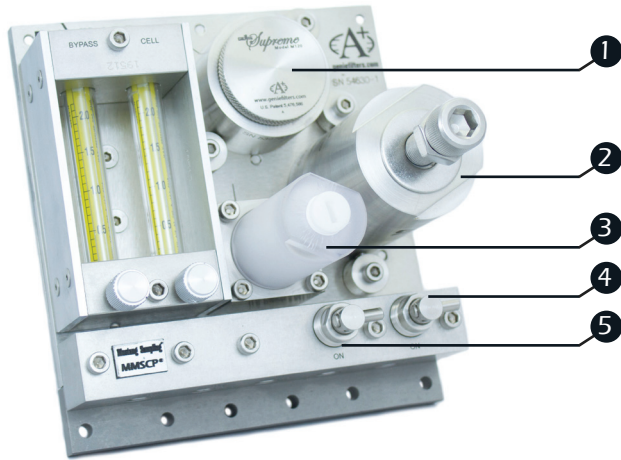
BENEFITS

- Non-interrupted flow of gas
- Easy panel replacement without disconnecting tubing
- Samples are quickly supplied to an analyzer for optimal performance
- Easily integrated into a heated enclosure
- Removes relatively small amounts of liquid present on a continuous basis
- Helps preserve sample integrity
- Superior analyzer protection

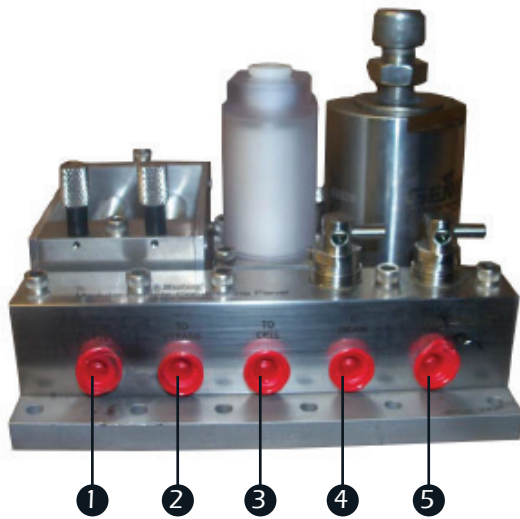
TECHNICAL SPECIFICATIONS

Maximum allowable working pressure	200 psig (14 bar)
Wetted materials	Machined parts: 316 stainless steel/NACE compliant All other metal parts: stainless steel/NACE compliant
Seal	Viton [®] other materials available upon request

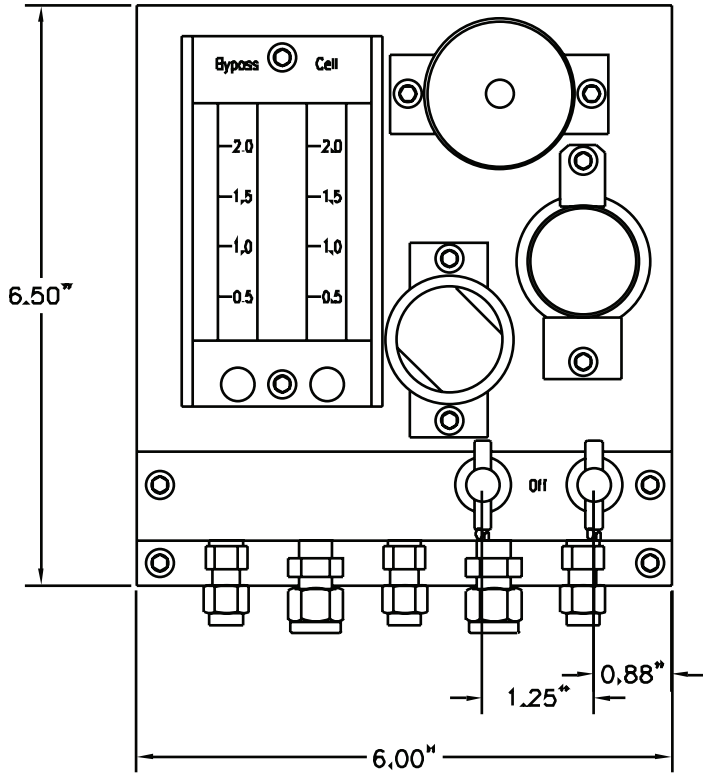
PRODUCT DIMENSIONS & PARTS



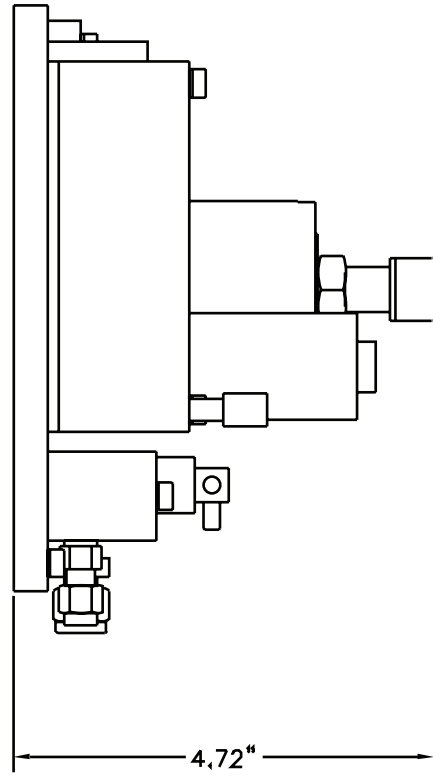
Item Number	Description
1	Membrane Separator
2	Optional Single or Multi-Stage Regulator
3	Particulate Filter
4	V2
5	V1



Item Number	Description
1	From Cell
2	Bypass
3	To Cell
4	Drain
5	Sample In

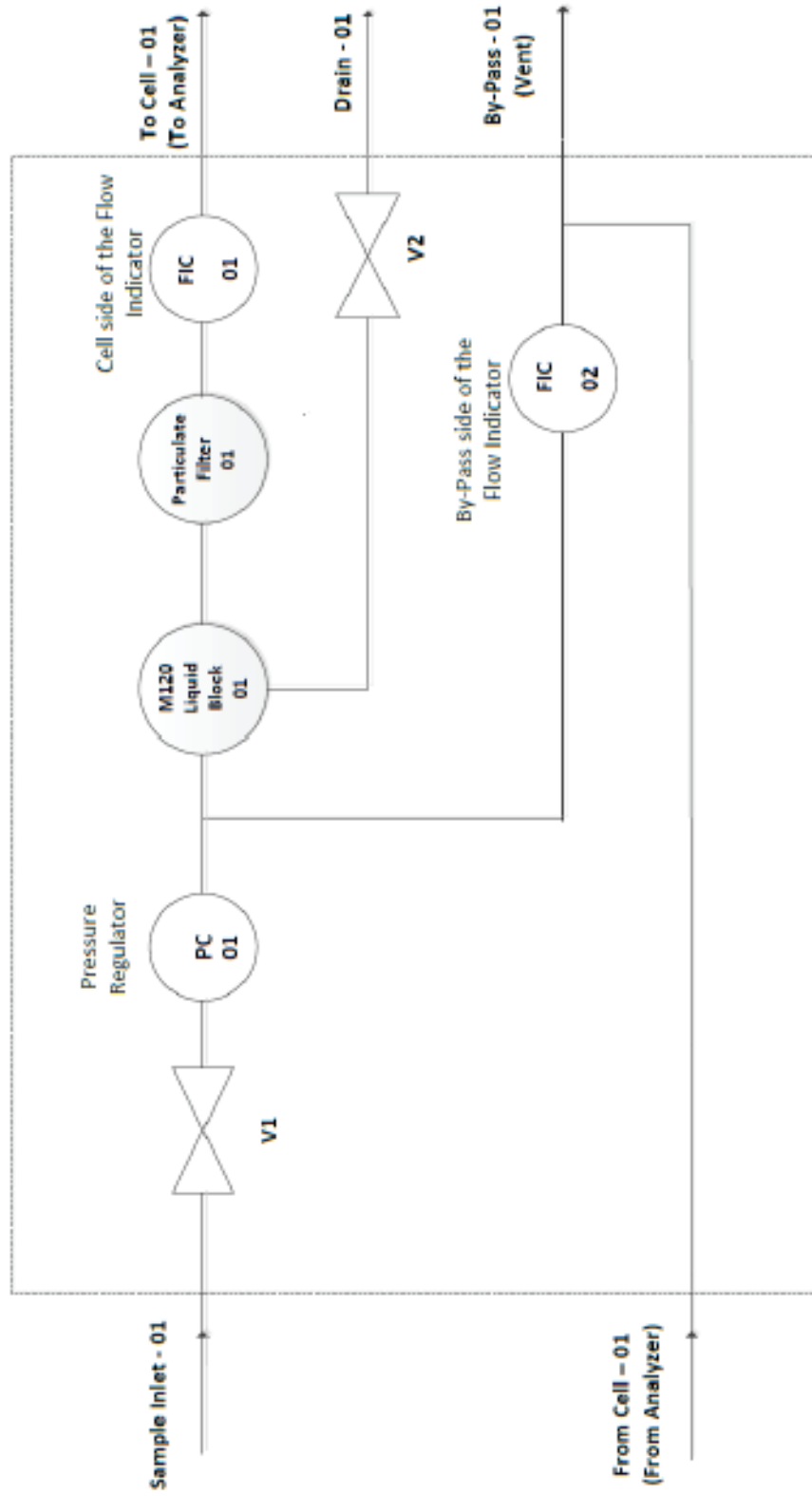


Front View



Side View

FLOW DIAGRAMS



INSTALLATION INSTRUCTIONS

NOMENCLATURE

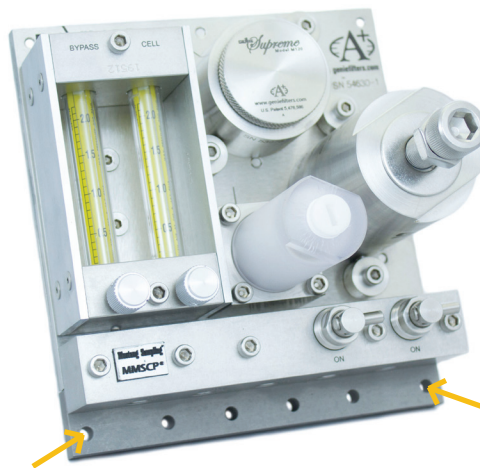
- **MAOP**—Maximum Allowable Operating Pressure
- **BTU**—British Thermal Unit
- **TCO**—Thermal Cut-Off
- Regulator adjustment screw - pressure set point adjuster

TOOLS REQUIRED

- Flat or Phillips Head Screwdriver.

MOUNTING

- Only use the two holes indicated below for mounting to a surface. **DO NOT** drill additional holes into the unit.



TUBE FITTINGS

- Use 1/8" NPTM tube fittings for connecting to the unit at the locations shown below.



OPERATION INSTRUCTIONS

START-UP

1. Open V1.
2. Open FIC-01 (Cell) and adjust the flow 1/2 to 3/4 of the meter unless it is dead-headed to the analyzer. In this case, turn fully counter clockwise to open the flow meter.
3. Open FIC-02 (By-Pass) and adjust the flow 1/2 to 3/4 of the meter.

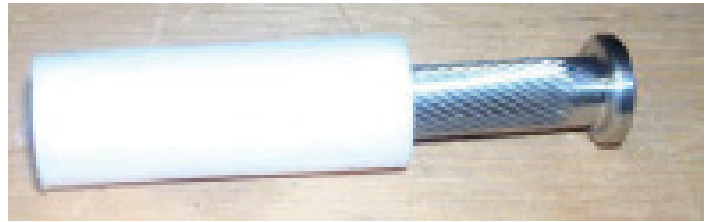
NOTE:

- FIC-01 will not indicate a flow if it is dead-headed to the analyzer.
- PC-01 is set from the factory to the application's required pressure. See the Maintenance section of this manual for the procedure of resetting the pressure regulator.
- Only open V2 into a container to drain any fluids that may be collected in the Liquid Membrane Separator.

MAINTENANCE INSTRUCTIONS

CHANGING THE PARTICULATE FILTER

1. First, depressurize the system.



2. With a wrench, loosen and turn the clear plastic container counter-clockwise and completely remove it.
3. Next, turn the metal disk counter-clockwise and remove it and the filter.
4. Remove and replace the filter. Reassemble. Do not overtighten the plastic container.

SUPREME 120lb

1. The 120lb is virtually maintenance-free. If the membrane and o-rings do need replaced, replacement instructions will accompany the replacement parts.

PRESSURE REGULATOR ADJUSTMENT

1. Close V1.
2. Depressurize the system.
3. Close V2.
4. Disconnect the "To cell" (To Analyzer) port and install an appropriately sized pressure gauge.
5. Disconnect and plug the "By-pass" and "From Cell" ports.
6. Open V1.
7. Adjust the regulator to the desired pressure.
8. Close V1. Depressurize the system.
9. Remove the gauge and reconnect all ports.

Analytically Accurate® **TECHNOLOGY**

About Mustang Sampling

Mustang Sampling, LLC is the innovator of Analytically Accurate® solutions within sample conditioning systems. We provide custom solutions of products and services globally to the Natural Gas, Natural Gas Liquids (NGL), and Liquefied Natural Gas (LNG) industries. Mustang Sampling continues to pioneer integrated control systems, allowing our customers to maintain phase stability from sample extraction at the source through sample analysis. Our products are continuously improved and subjected to the highest quality standards which provides our customers with the best sample conditioning solutions.

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