Quick SIERRA® Reference
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SmartTrak® 50 Series Low & Medium Flow
Quick Install Guide

INTRODUCTION

Congratulations on your purchase of the SmartTrak® 50 Series digital gas mass flow meter/controller designed to meet the low-cost budgetary requirements of OEM's while maintaining excellent quality and performance. This reference guide is not meant to replace the Instruction Manual included on the CD-ROM in your shipment, but rather is a great supplement to it that will help you install and operate your instrument and begin to measure or control mass flow.

SAFETY 1st

1. Apply power only after reviewing the wiring diagrams on page 2 of this guide or in the Instruction Manual.
2. Apply gas flow only after checking plumbing connections for leaks.
3. **NEVER TEST FOR LEAKS WITH LIQUID LEAK DETECTOR.** If liquid seeps into the electronics or the hidden sensor compartment, the instrument may be damaged. Instead use a pressure-decay test (if liquid MUST be used at all, limit it to the fittings and keep it off the body of the instrument).

INSTALLATION

1. **Consult the instrument's Data Label (on the back of the instrument)** for ALL proper operating parameters. If the information on the Data Label does not match your process conditions, contact your Representative or Sierra Instruments Customer Service at the contact information on the footer of the sheet.
2. **Install a 10 micron in-line filter upstream of your instrument.** If the gas contains any moisture, use an appropriate dryer or desiccant. Particles larger than 10 micron and moisture may damage your instrument.
3. **Mount according to Data Label orientation.** Horizontal flow is preferable and factory default unless the factory calibration was performed specifically for vertical flow upward or downward, as listed. Orientation is listed on Data Label and on the Calibration Certificate.
4. This instrument is not a loop-powered device! Do NOT apply power to the 4-20 mA / 0-5 VDC output or setpoint connections.
5. **Wire your instrument per the diagramed pin-out** on the back of this card and in Chapter 2 of the Instruction Manual. For convenience of wiring, there are two DB9 connector ports; the unused DB9 is capped off. Apply power to your choice of port and cap unused port. It is recommended you allow 15 minutes for the instrument to warm up for maximum accuracy.

OPERATION

1. **Power the unit.** If you are using the Sierra provided power supply, it is recommended you attach the D-sub connector to the 50 Series before plugging the adapter into the wall. The unit may take longer to start than normal if otherwise. This will not damage the unit in any way.
2. **Our Mass Flow Controllers with a digital setpoint option** are shipped with a *zero setpoint* in the power-up setpoint box in the software. **For safety considerations, it is recommended *YOU* confirm this prior to applying gas to the unit.**
3. *Apply the gas* listed on the Data Label to the inlet at the recommended pressure (listed on the Data Label/Calibration Certificate). Your 50 Series will begin to measure mass flow. This will be displayed on the user software or local display.
4. You will need a setpoint input in order to control flow. **Do so carefully!** You can digitally input a setpoint using the user software or control directly with your analog setpoint source if you ordered the analog option. **NOTE:** The unit ships in