

## Quick-Installation Instructions for 101-Series Meters and Controllers

### SAFETY

1. Apply power only after reviewing the wiring diagrams (on reverse and in 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.

### INSTALLATION

4. **Consult the instrument's Data Label (on the rear 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.
5. **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 microns and moisture may damage your instrument.
6. **Mount with a horizontal gas-flow** unless the factory calibration was specifically performed for a vertical flow. Consult the Data Label or your calibration certificate.
7. **Series 101 Micro-Trak instruments** have very specific plumbing requirements. Sierra recommends line size of 1/8 or smaller for optimum performance. Minimize volume in the gas line or response times will be delayed. Pressure must be kept very well regulated to attain the excellent performance the Micro-Trak was designed to deliver. See the Instruction Manual, Appendix F for more details.
8. **DO NOT APPLY POWER TO THE OUTPUT LOOP** on units equipped and calibrated for a 4-20 mA output signal. This is NOT a loop-powered device. Damage will occur.
9. **Wire your instrument** per the diagrams on the back of this card or the Instruction Manual, Chapter 2. Power is applied via the mini-D connector. The CAT-5 connector is for the Sierra Remote Pilot Module only. **DO NOT use the CAT-5 connector for Ethernet—damage to your computer system or the instrument may occur.**

### OPERATION

10. **Apply your gas** inlet at the recommended pressure (listed on the Data Label/calibration certificate). Note that all flow controllers are shipped with a zero set point so the valve will not open until commanded to do so.
11. **Apply power per the instructions.** The green LED above the mini-D connector will light to confirm power.
12. **If your unit has a Pilot Module (attached or remote),** the unit may be set-up to receive commands from the Pilot Module. If you wish to command the unit with an analog signal, you must change this via the Pilot Module or the Smart-Trak software. See the Instruction Manual for details.
13. **DO NOT LEAVE A SETPOINT APPLIED TO A CONTROLLER WHEN NO GAS IS AVAILABLE AT THE INLET FITTING.** The control circuit will apply the maximum voltage to the valve coil. Damage will not result, but the instrument will become hot to the touch and a flow error can result. Instead, consult the Operator's Manual for use of the Valve Close feature. This may be set from the Pilot Module, the Smart-Trak Software or an analog signal. Alternatively, you may simply power down your flow controller. When power is returned, it will "remember" the set point and the valve will open.
14. An **ANNUAL factory evaluation and calibration** is recommended.

### HELP

Email Technical Support: [Service@sierrainstruments.com](mailto:Service@sierrainstruments.com)

24 Hour Website Service: [www.sierrainstruments.com](http://www.sierrainstruments.com) (Click "Sales & Service" Button)

Telephone Technical Support:

**SIERRA USA:** 800-866-0200 OR 831-373-0200

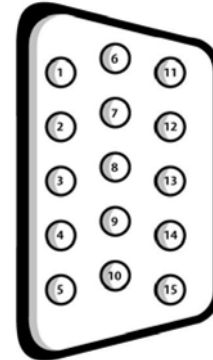
**SIERRA EUROPE:** + 31 72 5071 400

**SIERRA ASIA:** +8620 3435 4870

## Wiring Functions and Color Codes for Optional Communication Cable

### High Density DB-15 Connector Pin Configuration (on the instrument)

<i>Pin #</i>	<i>Wire Color in Optional Cable</i>	<i>Function</i>
1.	Brown	Analog Ground
2.	Red	0-5 VDC Output (or 0-10, 1-5 VDC)
3.	Orange	Analog Ground
4.	Pink	Valve Override (purge)
5.	Yellow	Power Return (-)
6.	Green	Power Input (+)
7.	Green/White	RS-232 Transmit (out)
8.	Blue	Setpoint
9.	Purple	Not Used
10.	Gray	Analog Ground
11.	White	Reference Voltage (5 VDC External Setpoint & Valve Purge)
	Black	Valve Override (shut)
13.	Brown/white	RS-232 Receive (in)
14.	Red/white	4-20 mA or 0-20 mA Output
15.	Red/Black	Chassis (Earth) Ground



**Note:** Pins 1, 3, 5, and 10 are connected together inside the instrument. Sierra recommends individual wires.

**Note:** If the RS-232 digital signals are to be used in conjunction with the Pilot Module, the mini-plug connection at the bottom of the instrument should be used and NOT the RS-232 connections on the DB-15 connector (damage to the instrument could result).

### MICRO-TRAK™ SIDE VIEW

