



Quick-Installation Instructions for 810 Controllers

1. If equipped with a black nylon flow body, **DO NOT OVERTIGHTEN** your fittings or pipes when installing into the hexed-portions of the flow body. Use two wraps of Teflon tape on each of your fittings, hold the plastic hexagonal nuts with a wrench, and tighten your fittings no more than one (1) turn past hand tight.
2. **NEVER TEST FOR LEAKS WITH LIQUID LEAK DETECTOR.** If liquid seeps into the electronics or the sensor compartment below, the instrument may be damaged. Use a pressure-decay test instead.
3. **Install an appropriate in-line filter upstream** if the gas contains any particulate matter or condensed moisture. (A 15-micron particulate filter for full-scale flows up to 30 liters/minute is recommended, 30 micron for flows above 30).
4. **Mount with a horizontal gas-flow.** This orientation is preferable unless the factory calibration was specifically performed for a vertical flow. Consult the "Comment" section of your calibration certificate. (Horizontal flow is assumed unless vertical flow upward or downward is specified).
5. **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.
6. **Confirm that the DIPswitch settings** are in the correct position for your chosen setpoint source by removing the front access panel. (The DIPswitches are located in the left of the opening – see the back of this card or Chapter 3 of the Operator's Manual for a diagram).
7. **Wire the instrument** per the diagram on the back of this card, or the Operator's Manual, Chapter 2. Connect the Setpoint signal wire if an external source is to be used to control flow. (Note: In External Source mode, if no wire is connected to the Setpoint pin, the valve may float open).
8. **Apply the gas** to the inlet at the recommended inlet pressure as listed on the label and the calibration certificate. On a controller, confirm that there is no gas flowing through it with a zero setpoint and under the operating pressure. (If there is a flow, consult the valve adjustment procedure found in the Operator's Manual, Chapter 4).
9. **Apply power and verify or adjust the zero setting** after allowing a 15-minute warm-up period. The zero adjustment potentiometer is accessed through the upper-right hole in the front panel. Adjust until the reading on the display is within 0.5% of the full-scale value. **For instruments without a display**, monitor the output signal and adjust DOWNWARD from a positive output, stopping at 4 mA (a V4 instruments) or 15 mV (V1 instruments). (See the Operator's Manual, Chapter 3).
10. **DO NOT LEAVE A SETPOINT APPLIED TO A CONTROLLER WHEN NO GAS IS AVAILABLE TO THE INLET FITTING.** The control circuit will apply the maximum voltage to the valve coil resulting in eventual overheating. Damage may occur. (Instead, consult the Operator's Manual, Chapter 3, for use of the "Valve Override" feature).
11. An **ANNUAL factory evaluation and calibration** is recommended.

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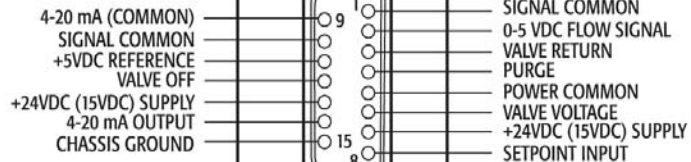
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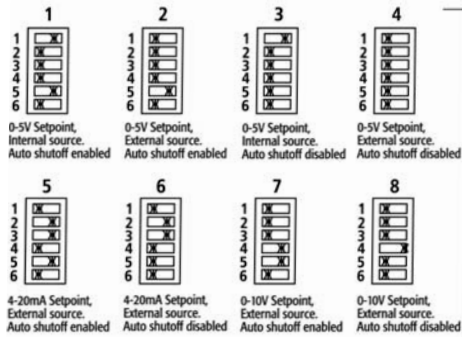
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CABLE COLORS		PIN #	FUNCTION
4-20 mA output	0-5 VDC output		
Green	Green	1	Signal Common
--	White	2	0-5 VDC Flow Signal*
			0-10 VDC Optional
Violet	Violet	3	Valve Return
Gray	Gray	4	Purge
Orange	Orange	5	Power Common
--	--	6	Valve Monitor
Red	Red	7	+24VDC (15VDC) Supply
Brown	Brown	8	Setpoint Input
Blue	--	9	4-20mA (Common)
--	Black	10	Signal Common
--	--	11	+5VDC Reference
Yellow	Yellow	12	Valve Off
--	--	13	+24VDC (15VDC) Supply
White	--	14	4-20mA Output
Shield	Shield	15	Chassis Ground



Note: Pins 1, 3, 5, 9 and 10 are all tied together internally. However it is highly recommended that at least one "signal common", one "power common" and the " valve return" pins be connected to the power supply common via separate wires, so that no ground loops are introduced, (especially on cables longer than ten feet)

DIP Switch Settings



Note: DIP Switch 6 has no function at this time

