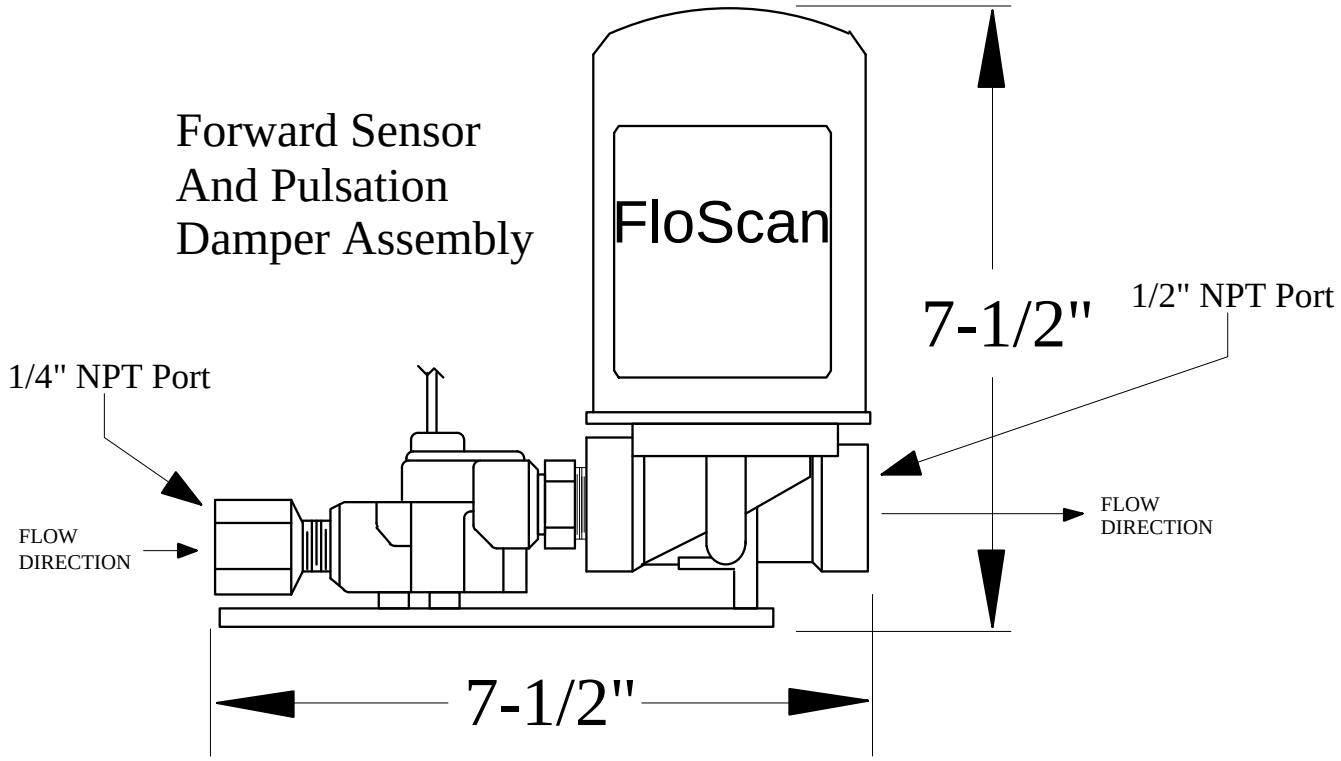
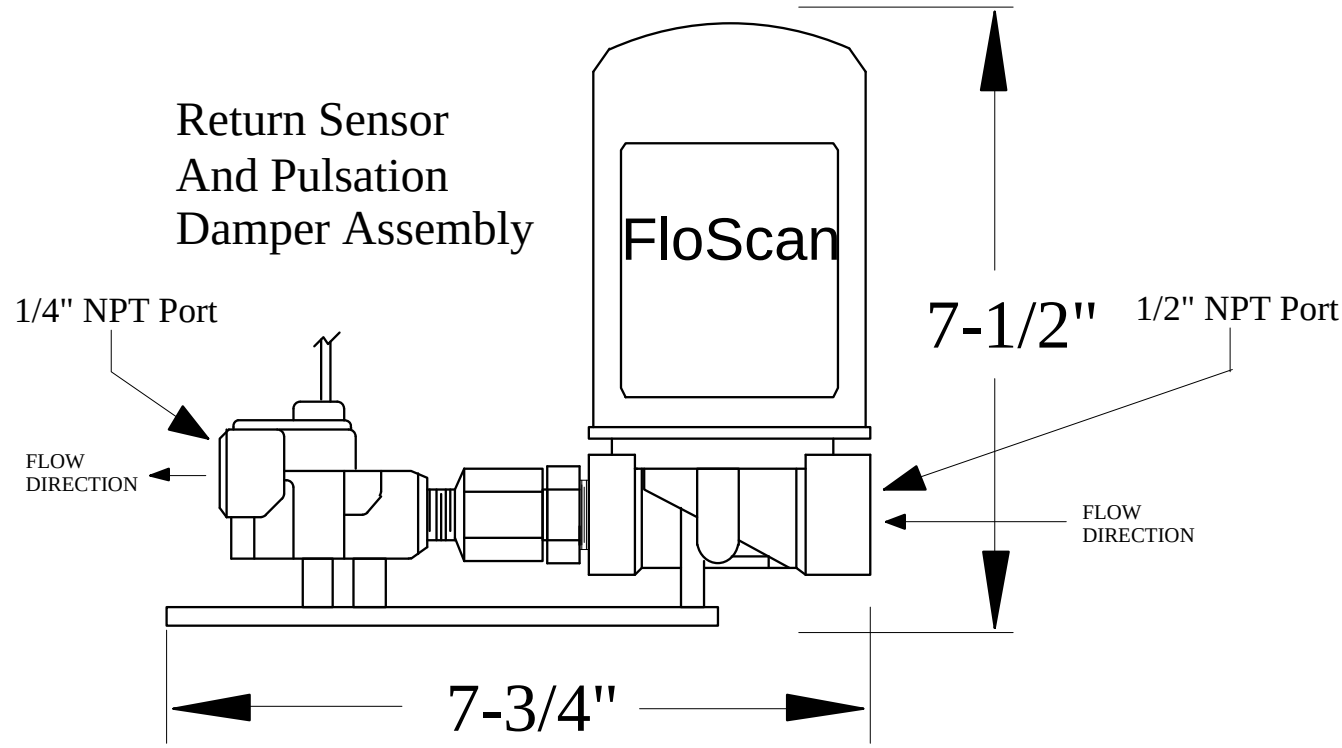
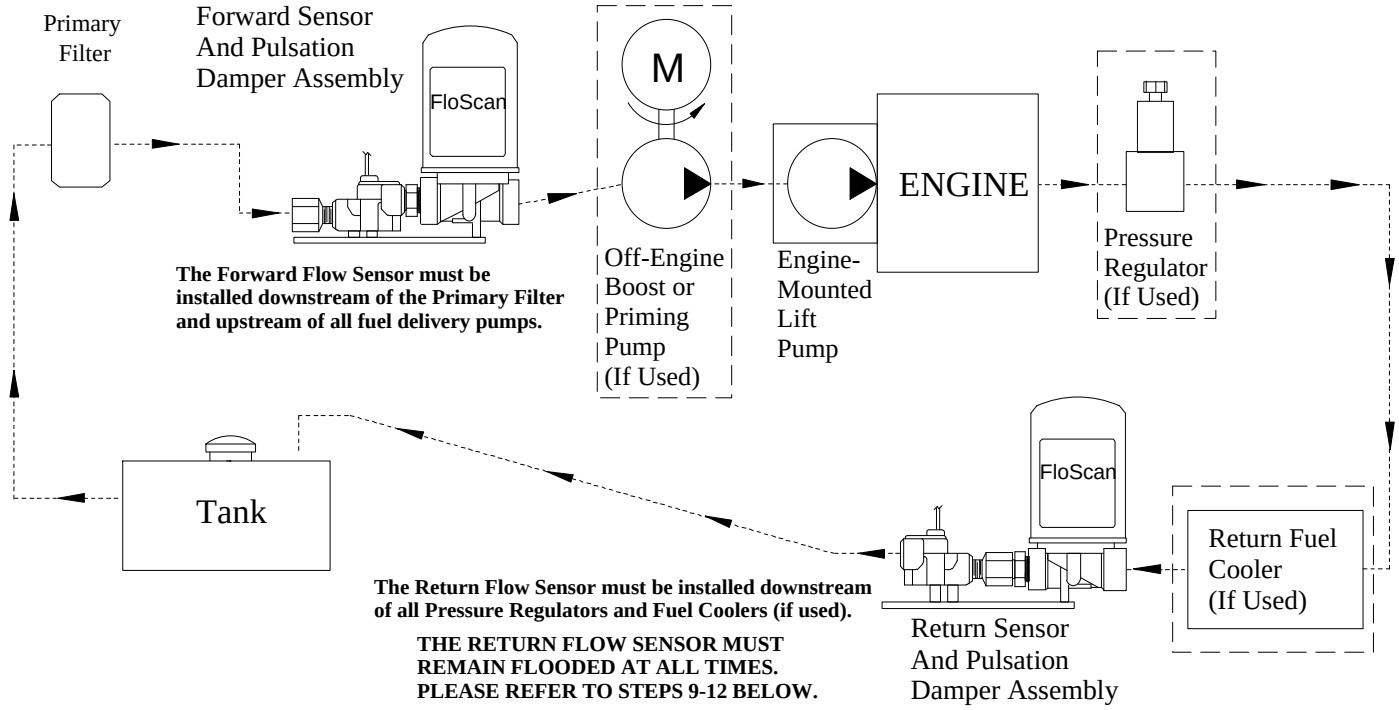
Dimensions – Standard Flow Diesel Sensor Assemblies (BOS, 201, 231 & 235-2K)





FloScan Instrument Company, Inc. Tel: (206) 524-6625 Fax: (206) 523-4961
3016 NE Blakeley Street, Seattle, WA 98105 Email: service@floscan.com Http://www.floscan.com

Fuel Flow Schematic - Standard Flow Diesel Systems (BOS, 201, 231 & 235-2K)



***Caution: Diesel System Components are not designed for use on Gasoline Fuel Systems.**

FloScan Sensor & Pulsation Damper Plumbing Guidelines:

1. Before installing the assembled Flow Sensor & Pulsation Damper assembly's into the fuel system, verify that their orientation arrows are pointing UP ↑.

2. The Forward Flow Sensor / Pulsation Damper assembly must be protected by and installed downstream of a 10 to 30 Micron Primary Filter. The forward assembly can be installed at any convenient location from the bottom of the bilge to the top of the overhead.

3. **NOTE:** Always use the primary filter micron rating **Specified by the Engine Manufacturer,** (usually 10, 20 or 30). Do not follow advice given by local experts, mechanics, or magazines. There are several reasons for avoiding 2 and 5 micron filters.

4. Filtered fuel must enter into the Forward Sensor through its Hex Flow Straightener on the port marked IN. Fuel must exit through the Pulsation Damper port with an outward pointing arrow, (➔).

5. Return fuel from the engine, must enter into the Return Pulsation Damper's inlet port. This is the port marked with an inward pointing arrow, (➔) and exit through the port marked OUT on the Return Sensor.

6. Install the Forward & Return Sensor – Pulsation Damper assemblies as far from the engine as practical. Maximizing fuel line length, between the engine and Sensor – Pulsation Damper assembly, improves instrument accuracy.

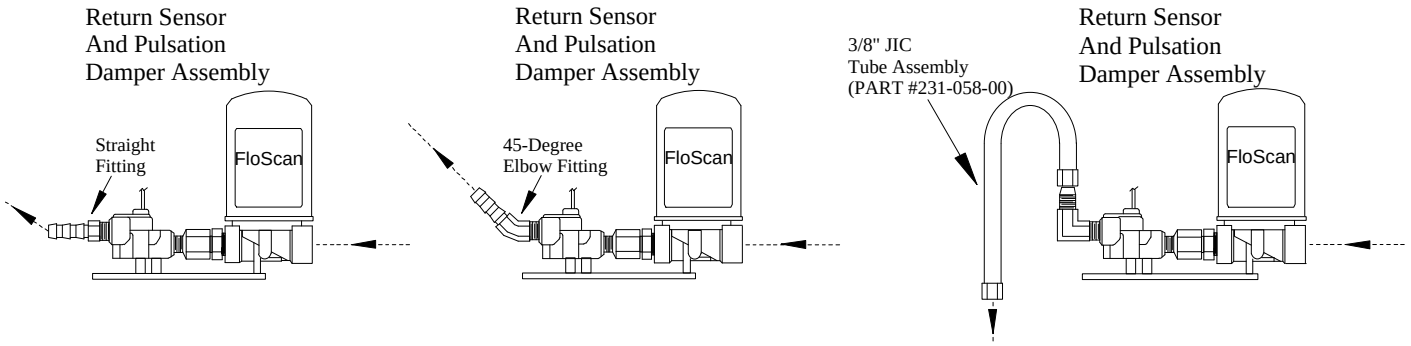
7. Use the smallest approved fuel line diameter for your engine, especially on the return line. Higher fuel flow velocities increase overall system accuracy. Refer to the engine owners or shop manual for more information.

8. **IMPORTANT NOTE: THE RETURN FLOW SENSOR MUST REMAIN FLOODED AT ALL TIMES.**

(Continued on next page)

FloScan Instrument Company, Inc. Tel: (206) 524-6625 Fax: (206) 523-4961
3016 NE Blakeley Street, Seattle, WA 98105 Email: service@floscan.com Http://www.floscan.com

9. If possible, install the Return Sensor – Pulsation Damper assembly at a low point in the fuel system.



10. There must be some vertical rise to the return fuel flow upon exiting the Return Sensor. There should be a minimum, "Up-Hill" climb of 1 or 2 inches. Higher rises up to 3 feet or a little more are ok.

11. If installing the Return Sensor-Pulsation Damper as outlined in step 9 is not practical, please refer to steps 12 and 13 below.

12. If the return line is fairly horizontal but with a small, "Down-Hill" drop after exiting the sensor, install an upward pointing 45° elbow into the return sensors outlet port. Install the fuel line with a downward radius bend. Do not pinch the hose.

13. If there is a steep vertical drop in the return fuel line, a tube with a 180° radius bend may be the best option. This option requires:

- One, 90° male elbow with one male JIC 37° 3/8" or Dash 6 (–6) end, and one 1/4" male NPT end.
- Two, Dash 6 (–6), (3/8) FlareTite fitting seals, www.flaretite.com, (to be installed onto the male JIC fitting ends).
- One, Dash 6 (–6), (3/8) JIC tube assembly.

The tube assembly, P/N 231-058-00 can be purchased directly from FloScan Technical Support. The 90° NMPT x JIC elbow fitting, and the FlareTite fitting seals can be purchased at most hydraulic shops.

14. Flow sensor model numbers are molded into the colored plastic wire cap. Sensors are shipped in matched pairs. They must not be mixed on twin engine installations. Match codes are identified by a single stand-alone letter stamped into the sensor body, or from a colored sticker on the sensors body.

15. Model *235 sensors are temperature compensated and stamped with their instruments serial number, xxxxF (Forward), xxxxR (Return). *235-2K Temp-Comp sensor kits are precisely calibrated and matched to each instrument. Sensors are labeled FORWARD and RETURN and must be installed in these positions for proper operation. The instrument head serial number must match the flow sensor(s) serial number.

16. If there is a shut-off valve in the return line, do not operate the engine with the valve closed. If the engine is run with the valve closed, fuel return line pressure could exceed the FloScan Return Sensor pressure rating of 100 PSI.

NOTE: Minimize the number of 90º elbows and pipe fittings on the sensor or pulsation dampers inlet port. Excessive use may create a high vacuum, fuel restricting, pressure drop across the forward part of the fuel system. Refer to the engine owners' manual for maximum fuel pump inlet vacuum. A vacuum gauge can be used to confirm that the system is within limits.

CAUTION, DO NOT OVER TIGHTEN FITTINGS. Over-tightening may crack the sensor's body or pulsation damper's base. Cracks cause leaks, and fuel leaks sometimes cause catastrophic explosions and fire. Assemble fittings with a Lubricating, Fuel Proof, Non or Semi Hardening pipe thread sealant designed for aluminum and stainless steel threads, (Loctite 567 or equivalent).
DO NOT USE TEFLON TAPE.

FloScan Instrument Company, Inc. Tel: (206) 524-6625 Fax: (206) 523-4961
3016 NE Blakeley Street, Seattle, WA 98105 Email: service@floscan.com Http://www.floscan.com