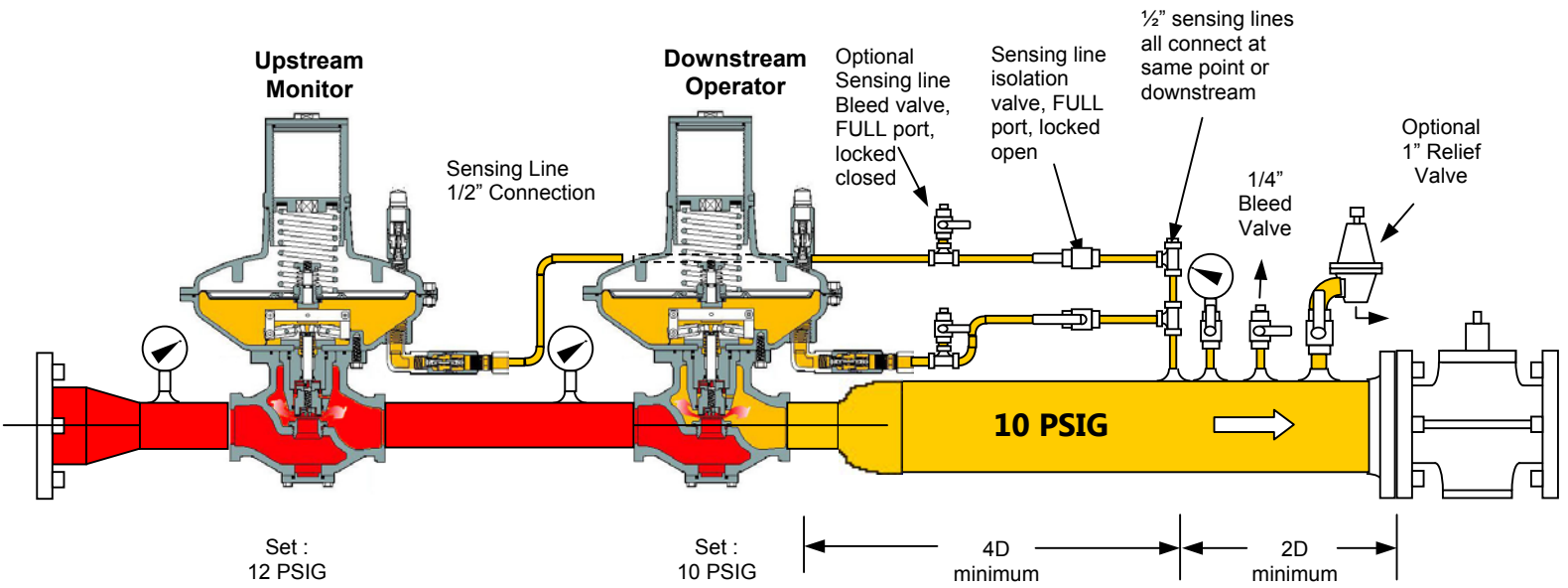


Typical DIVAL Operator/Monitor Set



Description: An Operator Monitor is set up with two regulators in series. The Upstream regulator is typically set up as a wide open monitor. The Monitor is set 20-30% above the set pressure of the downstream Operator, but it senses the pressure downstream of the operator. Under normal operating conditions the operator controls the pressure and the monitor is wide open. Should the operator not be able to regulate and close bubble tight under no flow conditions, the pressure would slowly rise to the set pressure of the monitor. At this point, the monitor would take over and begin to regulate, thus keeping the downstream piping from over-pressurizing.

Installation Considerations:

1. Pressure gauges should be installed on inlet, between the regulators, and on the outlet
2. Sensing lines should be connected in straight unobstructed section of pipe at least 4 pipe diameters downstream from the regulators, with an additional 2 pipe diameters of straight pipe after the sensing line connections. If the pipe flares up after the regulators, then sensing lines should be installed in this larger diameter pipe.
3. Isolation Shutoff valves can be installed on the sensing lines but they must be FULL port and locked in the open position during normal operation to insure they are never accidentally closed – this can cause regulator to go wide open.
4. Bleed valves can be added to the sensing lines to facilitate maintenance. They should be locked in the closed position and plugged. Bleed valves on sensing lines should only be used to remove pressure from the sensing line during maintenance – not to adjust set pressure.
5. A Primary Bleed valve can be installed downstream of the set. This can be used to maintain flow while making adjustments.
6. A Token Relief Valve can be installed on the outlet side of the set to indicate monitor operation or full failure (depending on set point)

Note: all adjustments should be made with gas flowing (either downstream equipment running or using the main bleed valve. If using a small bleed valve keep in mind that it may take some time to relieve the line pack)