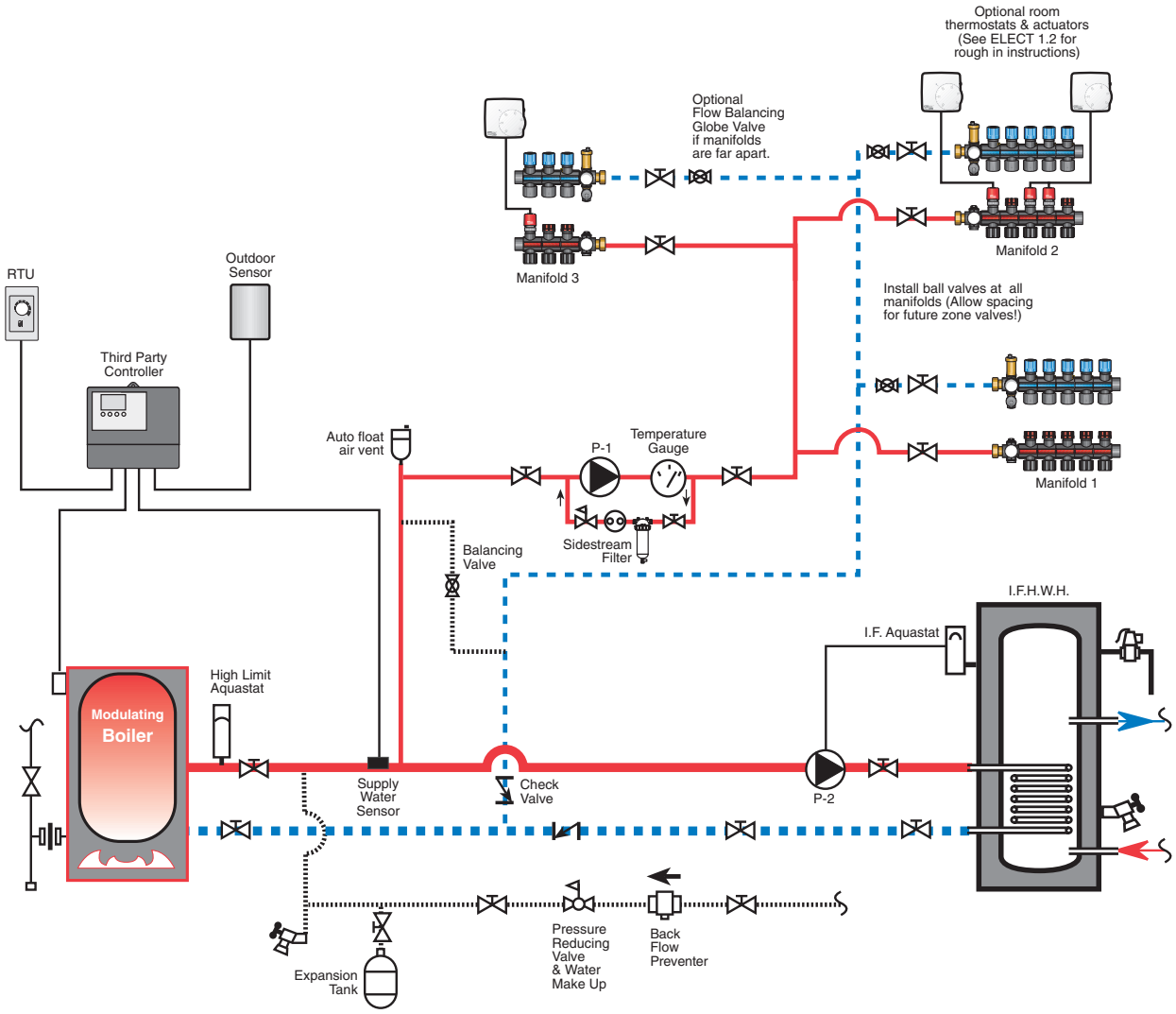
Application: **Modulating Boiler**

Modulating boiler and 2 circuits
(one low temp. circuit - fully automatic modulating water temp. for floor heating)
(one high temp. circuit for indirect fired hot water heater)



Note:

- Air vents, expansion tanks, pressure relief valves etc. For boiler as per local codes.
- Drawings are for HeatLink® suggested system layout only. User must determine if system layout will work for their particular application!
- Use isolation ball valves for all circuits and components.

Control Sequence:

- Indoor/outdoor or staging control unit provides the correct water temperature for the HeatLink® radiant floor system. By correlating outside air temperature, supply water temperature and room temperature the control unit then modulates the supply water temperature to the floor. (Use ELECT 1.2 & ELECT 1.3 for rough in specifications)
- Boiler to fire according to the indoor/outdoor controller & internal pump relay to control boiler water temperature. Wire gas valve in series with high limit aquastat.
- System pump (P-1) for floorheating circuit & (P-2) for indirect fired hot water heater are controlled by a boiler/pump relay. Upon demand for domestic water the boiler/pump relay will activate P-2 and deactivate P-1, and the boiler will fire to its maximum operating limit. After domestic hot water demand is satisfied P-2 is deactivated, P-1 is activated and boiler water temperature modulates according to indoor/outdoor boiler staging controller information. (See ELECT 7.1)
- Bypass to be adjusted so that at minimum boiler supply water temperature, supply water to heating circuit is 20˚ C or 68˚F. As boiler supply water temperature modulates from its minimum setting upwards, heating circuit supply water will rise accordingly with its pre-set differential.
- Room Temperature unit (R.T.U. unit placed in one floor heating zone/area only) compensates for average internal heat gains or losses in the building due to solar radiation, many occupants, additional heat sources (i.e. fireplaces etc.) or air infiltration.