**Residential Riser / Flowswitch Assembly**

Furnish and install riser assembly where indicated on the plans and drawings and as required by applicable local and national codes and standards.

The riser shall be constructed from Listed CPVC material suitable for fire sprinkler service and sized to fit within standard 2x4 wall construction. The riser shall consist of a female NPT connection at the riser inlet sized the same as the riser for connection to the water supply, a Tee with a 1” factory glued-in CPVC spigot to allow for installation of the flowswitch, 1” test / drain line with Listed ¼ turn ball valve and connection for the supplied 3.5” 300 psi pressure gauge on the riser above the test / drain line. The riser shall include a Listed vane type waterflow switch. All wetted parts of the waterflow switch shall be non-metallic. The flowswitch shall include paddle designed specifically for the size and make of the CPVC Tee it will be installed in on the riser, a 1” CPVC union for connection to the spigot on the riser, 0-90 second field replaceable adjustable time delay switch mechanism to prevent false alarms from water surges and two conduit entrances. Waterflow switch enclosure shall be NEMA 4 rated and shall be held captive by tamper resistant screws. It shall be possible to install an optional cover tamper switch to detect removal of the enclosure.

The flowswitch shall be listed for pressures up to 175 psi, maximum water surges of 18 fps and alarm activation by 10gpm. Activation shall be accomplished by the continuous flow of water against a non-corrosive vane or paddle attached to a non-corrosive stem operating a field replaceable instantly recycling adjustable retard with a visual indication of activation. Expiration of the retard time shall result in the simultaneous operation of two sets of single pole double throw (SPDT) switch contacts rated at 10A, 125VAC and 2A, 30VDC.

Each switch contact shall have a separate wiring chamber and separate conduit entrance to comply with the NEC requirements for separation of power limited and non power limited conductors without the need for special wire or wire methods. Residential Riser/Flowswitch Assembly shall be model RD13 as manufactured by Potter Electric Signal Company LLC.