

# RP / DC Working Group

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# Double Check Detector Fire Protection Backflow Prevention Assemblies

## Section I

### 1.0 General

#### 1.1 Application

The purpose of a Double Check Detector Fire Protection Backflow Prevention Assembly (herein referred to as the “assembly”) is to keep polluted water from fire protection systems from flowing into a potable water distribution system when some abnormality in the system causes the pressure to be temporarily higher in the polluted part of the system than in the potable water supply piping. These assemblies are also designed to detect low rates of flow up to 2.0 GPM (7.6 L/m) caused by leakage or unauthorized use.

#### 1.2 Scope

##### 1.2.1 Description

This standard applies to two (2) types of assemblies identified as:

- (a) Double Check Detector Assembly (DCDA).
- (b) Double Check Detector Assembly Type II (DCDA-II).

The DCDA and DCDA-II assemblies consist of two (2) independently-acting check valves, internally force loaded to a normally closed position. These assemblies are designed to operate under continuous pressure conditions. The assembly shall include two (2) properly located, tightly closing shut-off valves per Section 1.3.2.6; and properly located test cocks per Section 1.3.2.4. The assemblies also include a bypass line which provides a visual or audible indication of system leakage or unauthorized use of water.

This standard also applies to Manifold Double Check Detector Assemblies consisting of two or more complete DCDA or DCDA-II assemblies in parallel. The assemblies do not need to be of the same pipe size. The manifold size shall be identified by the single inlet and outlet of the manifold DCDA or DCDA-II assembly. Manifold Double Check Backflow Prevention Assemblies shall include line-sized shut-off valves on each inlet and outlet of the assemblies making up the manifold.

##### 1.2.2 Size Range

Connection pipe sizes shall be in accordance with Table 1.