Engineering Specification

Model Diaphragm Deluge Valve (DDV)

**Recommended CSI MasterFormat Specification Location: 21 13 26, Deluge Fire-Suppression Sprinkler Systems (formerly 13950)**

Deluge valve shall be an FM Approved hydraulically operated, diaphragm style valve. Deluge valve construction shall be ductile iron with red oxide epoxy coating and urethane external coating. Deluge valve shall utilize a fabric-reinforced EPDM diaphragm. The valve diaphragm shall seal against a seat machined in the valve body. Deluge valve shall be a straight through design to minimize friction loss, suitable for vertical or horizontal installation. All trim connections shall be to the valve body with nothing attached to the cover, to facilitate access to the diaphragm. Deluge valve shall be activated by **[**hydraulic wet-pilot**] [**pneumatic dry-pilot**] [**electric**] [**pneumatic dry-pilot pressure regulating**] [**remote resetting (on/off) operation**] [**remote resetting (on/off) operation with pressure regulation**]** actuation trim. Deluge valve trim shall be galvanized. **[Optional:** Deluge valve shall include an alarm test line.**]**

Deluge valve size shall be **[**1½” (40mm)**] [**2” (50 mm)**] [**2½” (65 mm)**] [**76mm**] [**3” (80 mm)**] [**4” (100 mm)**] [**6” (150 mm)**] [**165 mm**]** and have a rated working pressure of **{**400 psi (27.5 bar) for **[**hydraulic wet-pilot**] [**pneumatic dry-pilot**] [**pneumatic dry-pilot pressure regulating**] [**remote resetting (on/off) operation with pressure regulation**]** actuation trim**}** **{**300 psi (20.7 bar) for **[**electric**] [**remote-resetting (on/off) operation**]** actuation trim**}**. Valve end connections shall be **[**grooved, ANSI/AWWA C606**]** **[**flanged, Class 150 (ASME B16.5)**] [**flanged, Class 300 (ASME B16.5)**] [**flanged, PN16 (ISO 7005-2)**] [**flanged, BS-E (BS 10)**]** **[**threaded, NPT (ANSI/ASME B1.20.1)**] [**threaded, ISO7-1**]**.

Valve output range for pressure regulating versions shall be 50-200 psi (3.4-13.8 bar) for all sizes, except 6” (150 mm) and 165 mm valves, which shall have a 20-200 psi (1.4-13.8 bar) output range.

Deluge valve shall be the Reliable Model DDV Diaphragm Deluge Valve. Refer to Reliable **[**Bulletin 550for remote resetting and remote resetting pressure regulating trims**] [**Bulletin 551for electric, hydraulic wet-pilot, pneumatic dry-pilot, and pneumatic dry-pilot pressure regulating trims**]**.