

## PERFORMANCE SPECIFICATIONS

1. General specifications
  - 1.1. Valve internal flow measurement piece for 1/2"–2" size QuickSet valves and Metering Stations shall be a brass venturi machined to attain  $\pm 1\%$ <sup>1</sup>. QuickSet valve shall have a ball to set the flowrate.
  - 1.2. Valve internal flow measurement piece for 2-1/2"–18" size QuickSet valves and Metering Stations is precisely machined to attain  $\pm 1\%$  accuracy throughout its range. QuickSet shall have a butterfly valve to set the flowrate.
  - 1.3. QuickSet valves and Metering Stations shall have built-in straight runs before the venturi. This design feature allows the valves to be installed after an elbow, temperature control or other valve without affecting flow measurement or control. Valves that require straight pipe sections upstream or downstream for accuracy shall not be allowed.
2. Body styles
  - 2.1. 1/2"-2" Valves
    - 2.1.1. QuickSet valves and Metering Stations shall have ASTM brass alloy housing, rated at no less than 400PSI/250°F. QuickSet valves shall include an isolation ball valve and memory stop. Both QuickSet valves and Metering Stations shall have a venturi measurement piece, dual pressure/temperature test valves for signal reading, and a union end which will accept various end pieces.
    - 2.1.2. The QuickSet valve body design shall allow inspection or repair of handle operated stem without disturbing piping connections. The repairable stem shall include two Teflon seals and one EPDM o-ring for protection against chemicals and modulating temperature.
    - 2.1.3. The valve shall come fully assembled and be permanently marked to show direction of flow.
    - 2.1.4. Valve shall have a body tag to indicate model number and a hanging tag showing Cv and signal reading required for specific flow rate.
  - 2.2. 2-1/2"–18" Valves
    - 2.2.1. Flanged QuickSet valves and Metering Stations shall consist of a carbon steel SA-53 Grade B valve, with a carbon steel low loss venturi and a butterfly valve outlet; rated for 250PSI/230°F.
      - 2.2.1.1. Valve shall be mechanically compatible with ANSI B16.5-1968 150lb steel flanges.
      - 2.2.1.2. Valve shall be supplied with dual pressure/temperature test valves for signal reading.
      - 2.2.1.3. Valve shall have Piezo Ring with dual chamber for accurate pressure reading.
    - 2.2.2. Grooved End QuickSet valves and Metering Stations shall consist of a carbon steel SA-53 Grade B valve, with a carbon steel low loss venturi and a butterfly valve outlet with grooved connections; rated for 250PSI/230°F.

<sup>1</sup> Accuracy is for venturi portion of valve only. Pressure readability is dependent on accuracy of gauge.

Replaces form F-4397

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2.2.2.1. Valve shall be supplied with dual pressure/temperature test valves for signal reading.

2.2.2.2. Valve shall have Piezo Ring with dual chamber for accurate pressure reading.

2.2.3. Weld End QuickSet valves and Metering Stations shall consist of a carbon steel SA-53 Grade B valve, with a carbon steel low loss venturi and a butterfly valve outlet and beveled connections for welding; rated for 250PSI/230°F.

2.2.3.1. Valve shall be supplied with dual pressure/temperature test valves for signal reading.

2.2.3.2. Valve shall have Piezo Ring with dual chamber for accurate pressure reading.

### 3. Signal Transducer

3.1. Fast-response capacitance sensor, and signal conditioning electronic circuitry providing a highly accurate, linear analog output proportional to pressure.

3.2. Accuracy RSS (at constant temp) shall be  $\pm 0.25\%$  FS

3.3. The electronic circuit shall linearize the output versus pressure, standardizes the output (zero and gain) and compensates for thermal effects on the sensor.

3.4. Analog (4–20mA/1–5Vdc or 2-10 Vdc) signal output capability.

3.5. NEMA 4/IP65 rated package withstands environmental effects.

3.6. Isolation Ball Valves shall be provided for start-up pressure isolation and transducer serviceability.