



SECTION 23 05 93

Testing, Adjusting, and Balancing for HVAC

PART 1 GENERAL

1.01 SECTION INCLUDES

- A. Unit shall be a Bell & Gossett® Circuit Sentry™ Flo-Setter II pressure independent flow limiting valve Model FS or Model AF as manufactured by Xylem.
- B. Furnish pressure independent flow limiting valve with capabilities as indicated in the plans.

1.02 RELATED SECTIONS

- A. Section 23 08 00 – Commissioning of HVAC

1.03 REFERENCES

- A. ANSI - American National Standards Institute.
- B. ISO - International Standards Organization.

1.04 SUBMITTALS

- A. Submit data cover sheet.
- B. Dimensional print(s).
- C. Sales bulletin.
- D. Installation, operation & maintenance manual.

1.05 QUALITY ASSURANCE

- A. The Valve manufacturer shall be fully certified by the International Standards Organization per ISO 9001.
- B. The manufacturer shall carry a minimum product liability insurance of \$5,000,000.00 per occurrence.

1.06 MAINTENANCE MATERIAL SUBMITTALS

PART 2 PRODUCTS

2.01 MANUFACTURERS

- A. Subject to compliance with these specifications, the following manufacturers shall be acceptable:
 - 1. Pressure Independent Flow Limiting Valve
 - a. Xylem Inc. Bell & Gossett Circuit Sentry Flo-Setter II pressure independent flow limiting valve Model FS or Model AF
 - b. Pre-approved equal

2.02 COMPONENTS

- A. Pressure Independent Flow Limiting Valve
 - 1. Valve body shall have a dial that reflects a setting in gallons per minute.
 - 2. Valve assembly shall include a field adjustable, lockable handle.
 - 3. Valve shall be capable of Class IV shut off without the use of an additional shut-off valve.
 - 4. Valve shall be accurate to within +/-5% of set GPM within the valve's pressure control range.
 - 5. Valve shall have a maximum differential pressure control range of 60 psi.
 - 6. Valve body shall include two integrated pressure/temperature ports.

Circuit Sentry Flo-Setter II Specifications

7. ½" thru 1¼" valve bodies shall be constructed out of DZR brass and rated for 375 PSIG working pressure.
8. 1½" and 2" valve bodies shall be constructed out of ductile iron and rated for 375 PSIG working pressure.
9. Valve diaphragm shall be made of HNBR construction.
10. Valve shall have a stainless steel stem.
11. Valve temperature range shall be from 14°F (-10°C) to 250°F (121°C).
12. **Model AF Only:** Valve shall have the ability to accommodate a union ended tailpiece that can connect to copper, male NPT, and female NPT connections and a union nut that can secure the tailpiece to the body of the valve to create a water-tight seal.
13. **Model AF Option:** Valve shall have a separate attached male NPT x Female NPT, brass body and isolation valve equipped with chrome plated brass ball and stainless steel stem.
14. **Model AF Option:** Threaded isolation valve body shall be constructed out of DZR brass and rated for 290 PSIG working pressure.

2.02 ACCESSORIES

- A. Pressure Independent Flow Limiting Valve Accessories
 1. Extended Pressure/Temperature Ports
 2. Extended Handle (optional threaded isolation valve only)

PART 3 EXECUTION

3.01 INSTALLATION

- A. Install pressure independent flow limiting valve in accordance with manufacturer's instructions.
- B. Unit shall be a Bell & Gossett Circuit Sentry Flo-Setter II pressure independent flow limiting valve Model FS or Model AF as manufactured by Xylem.

END OF SECTION



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