



23 0900 – Instrumentation and Control for HVAC Systems

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Last Update: July 14, 2015

A. General:

1. BSU capital projects ask for “Add Alternates” for the control work from the three controls contractors as follows:
 - a. Automated Logic (local branch office)
 - b. Trane (local branch office)
 - c. Johnson Controls (local branch office)
2. BacNet communication protocol only.

B. Product Preferences

1. Thermistor Temperature Sensors and Transmitters
 - a. BEC Controls Corporation.
 - b. Ebtron, Inc.
 - c. Heat-Timer Corporation.
 - d. I.T.M. Instruments Inc.
 - e. MAMAC Systems, Inc.
 - f. RDF Corporation
2. RTDs and Transmitters
 - a. BEC Controls Corporation.
 - b. MAMAC Systems, Inc.
 - c. RDF Corporation
3. Humidity Sensors
 - a. TCS/Basys Controls.
 - b. Vaisala



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4. Water Flow Switches
 - a. BEC Controls Corporation.
 - b. I.T.M. Instruments Inc.

5. Gas Detection
 - a. Ebtron, Inc.
 - b. TSI Incorporated.
 - c. Vaisala.
 - d. Kele

6. Air Flow Measuring Stations
 - a. Ebtron Co "Gold" series

7. BTU Meters
 - a. Onicon System 10 with F-3500 electromagnetic flow meter.

8. Humidistats
 - a. MAMAC Systems, Inc.
 - b. ROTRONIC Instrument Corp.
 - c. Vaisala.

9. Electronic Damper Actuators
 - a. Belimo Aircontrols (USA), Inc.

10. Control Valves
 - a. All control valves must be guaranteed by the Controls Manufacturer
 - b. Approved Manufacturers include the following:
 - 1) Brand labeled or distributed by Johnson Controls



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- 2) Danfoss Inc.; Air Conditioning & Refrigeration Div.
 - 3) Erie Controls.
 - 4) Hayward Industrial Products, Inc.
 - 5) Magnatrol Valve Corporation.
 - 6) Neles-Jamesbury.
11. Dampers
- a. Air Balance Inc.
 - b. Don Park Inc.; Autodamp Div.
 - c. TAMCO (T. A. Morrison & Co. Inc.).
 - d. United Enertech Corp.
 - e. Vent Products Company, Inc.

C. BSU Typical Sequence of Operations (Attached)