### **INSTALLATION & OPERATION INSTRUCTIONS**

## **GENERAL INFORMATION**

- Clean the lines upstream of valve particles larger than 1/16" diameter (welding slag, pipe scale and other contaminants). Griswold Controls recommends the use of a strainer upstream to prevent damage or blockage.
- 2. Air should be eliminated from the system so valves remain full of fluid during operation.
- 3. All styles of Griswold flow control valves are marked to show the direction of flow. THE FLOW ARROW MUST POINT IN THE DIRECTION OF FLOW FOR PROPER OPERATION.
- 4. Do not use boiler additives, chemicals which are petroleum based or contain mineral oil, hydrocarbons, azole compounds or ethylene glycol acetate.

  Compounds which can be used, with minimum 50% water dilution, are diethylene glycol, ethylene glycol, and propylene glycol. If installing these valves in an addition or retrofitting an existing building, do not assume that the fluid in the existing piping meets these criteria.
- 5. Valve can be piped at elbow or at a control valve. No straight pipe diameters are required. (If installing at a pump discharge please contact the factory.)

# **MECHANICAL INSTALLATION**

## FLANGE CONNECTIONS-PI VALVE

Steel Valves are mechanically compatible with standard ANSI Steel flanges ANSI B16.5-RF Class 150lb flat-faced or raised-face steel flanges, or with 125lb. cast iron flanges.

Appropriate gasketing material and hardware must be used when installing flange-mounted flow control valves (for example, 1/16" thick ring type gaskets). (Not supplied by Griswold).

Before tightening any bolts on butterfly type valves, turn the disk of the butterfly to full open position. Center the valve and hand tighten all bolts. Slowly close the disk to check for adequate disk clearance. When properly aligned, return the disk to full open position and evenly cross-tighten all bolts. Make sure the disk opens and closes correctly.

#### SENSOR CONNECTIONS

- 1. BTU Meter includes two temperature sensors that should be installed as close to the coil as possible, within 1 to 10 feet if possible. One should be installed on the inlet to the coil and one on the outlet to the coil. Sensors can be installed in ¼" fnpt ports. Each sensor is 2-1/2" long so some size pipe may require an extension. The temperature sensor cable (6' long) attaches, via connectors, to the cable (2' long) coming from EPIC Controller.
- 2. BTU Meter includes two pressure sensors that have been installed on the valve, one on the inlet of the valve and one on the outlet of the valve. Check the connections to make sure they didn't come loose during transport. The pressure sensor cable (6' long) attaches, via connectors, to the cable (2' long) coming from EPIC Controller labeled PSI TRANSDUCER.

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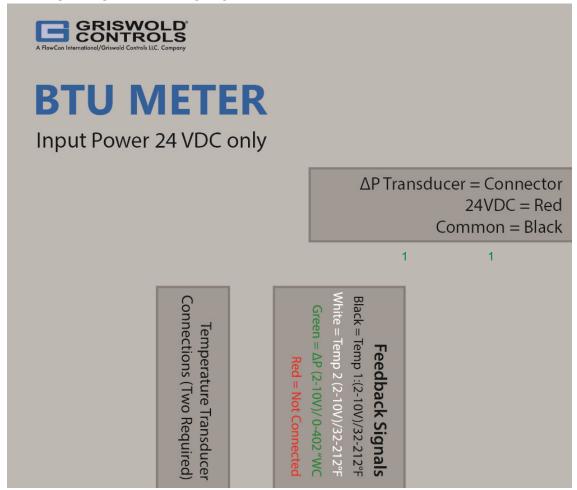
9/18 F-5595A FLOW METERING 2-1/2"-20" BTU METER

# **ELECTRICAL INSTALLATION**

#### GRISWOLD EPIC CONTROLLER WIRING

EPIC Controller is compatible with 24 VDC only. Connect supply voltage to the red wire on right side of box. (See Wiring Diagram for details.)

## WIRING DIAGRAM – EPIC BOX



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