

# **Submittal Data Information**

101-109

## **Differential Bypass Valve**

Effective: July 23, 2007 Supersedes: April 1, 2005

Job: En	gineer:	Contractor:	Rep:
ITEM NO.	MODEL NO.		

#### **Application**

Differential Bypass Valves are used to control excess flow velocities that can be created when there is a reduction in the demand for heat. This reduced heat demand would typically occur as zone thermostats are satisfied and their corresponding zone valves close, causing the system pump to try and force more water through the remaining zones. By installing a Taco Differential Bypass Valve between the discharge of the system pump and somewhere before the inlet of the pump, usually on the system return, an automatically regulated flow path is created. This regulated flow path will prevent unacceptable velocities from being pumped through the zones that remain open during reduced demand periods. Differential Bypass Valves should also be used to prevent dead heading of the circulator in systems where parallel piped heat emitters are controlled by thermostatic radiator valves.

#### Operation

The Bypass Valve uses an adjustable spring loaded seat that opens and closes to allow flow through the valve. This opening and closing is based on the system pressure applied to the valve seat and the set point of the valve.

#### **Materials of Construction**

Body: **Brass** Indicator: **Brass** Union Nut: Brass

Internals: Stainless Steel and

**Engineered Plastics** 

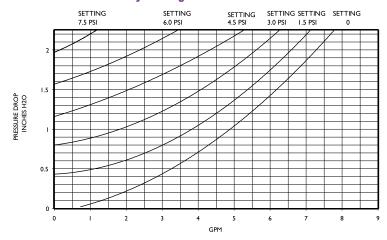
O-Ring: **EPDM** 

Gasket: Non Asbestos Phenolic

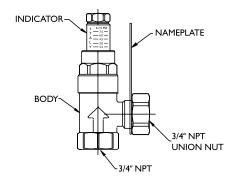
#### **Differential Bypass Valve Ratings**

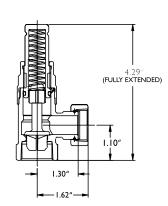
Maximum Pressure: 200 PSI Maximum Temperature: 200°F Adjustment Range: 0 to 7.5 PSI

### Flow Characteristics By Setting



#### **Dimensions**





#### **Typical Installation**

